Visionary perspectives on the lexicographic treatment of easily confusable words: *Paronyme – Dynamisch im Kontrast* as the basis for bi- and multilingual reference guides

Petra Storjohann[1]

[1] Leibniz-Institut für Deutsche Sprache, R5-13, 68161 Mannheim, Germany
E-mail: storjohann@ids-mannheim.de

Abstract

The German e-dictionary documenting confusables *Paronyme – Dynamisch im Kontrast* contains lexemes which are similar in sound, spelling and/or meaning, e.g. *autoritär/autoritativ*, *innovativ/innovatorisch*. These can cause uncertainty as to their appropriate use. The monolingual guide could be easily expanded to become a multilingual platform for commonly confused items by incorporating language modules. The value of this visionary resource is manifold. Firstly, e-dictionaries of confusables have not yet been compiled for most European languages; consequently, the German resource could serve as a model of practice. Secondly, it would be able to explain the usage of false friends. Thirdly, cognates and loan word equivalents would be offered for simultaneous consultation. Fourthly, users could find out whether, for example, a German pair is semantically equivalent to a pair in another language. Finally, it would inform users about cases where a pair of semantically similar words in one language has only one lexical counterpart in another language. This paper is an appeal for visionary projects and collaborative enterprises. I will outline the dictionary's layout and contents as shown by its contrastive entries. I will demonstrate potential additions, which would make it possible to build up a large platform for easily misused words in different languages.

Keywords: contrastive lexicography; bilingual paronyms; easily confused words; false friends; multilingual platform

1. Introduction

Electronic lexicographic resources are often shaped by modularity and their potential to be extended. To some extent, allowance is already made at the draft stage for linear and/or vertical expansion, which is then realised at different times and in various stages of development. In elexiko, for example, the online dictionary of modern German (www.elexiko.de), and also in the paronym dictionary *Paronyme – Dynamisch im*

Kontrast (freely accessible in OWID or in OWID$_{plus}$[1]), which documents easily confused expressions in contemporary German usage, work packages were defined from the very beginning which anticipated the successive addition of new dictionary rubrics or were intended to augment existing content with supplementary linguistic or subject-related information, in addition to the continuous development of word entries. If we disregard e-dictionaries that are supplemented with new information after they have been retrospectively digitised, then little detailed attention has been paid to how more recent electronic language resources might be productively extended after completion. At the end of 2021, *Paronyme – Dynamisch im Kontrast* will be complete, with around 360 contrastive entries (about 800 individual lemmas) comprising expressions that can create linguistic uncertainty as a result of their formal and/or semantic similarity to one another. The new dictionary will fill a gap in the lexicographic landscape. For the first time, we will have at our disposal a rigorously corpus-based reference work on the phenomenon of paronymy, which will provide help in situations of linguistic uncertainty on multiple descriptive levels through its contrastive entries with dynamic display options. As such, it is aimed primarily at native speakers. However, we know from email enquiries that there is also interest among those learning German as a foreign language[2].

This paper is intended to demonstrate how it is possible to extend a reference work in a valuable way and to show, using hypothetical examples, how an existing monolingual resource could be transformed into a bilingual or multilingual platform for native speakers, for learners of German as a foreign language, and for other second-language learners, thereby appealing to additional groups of users. The development options outlined in what follows would constitute a considerable step forward for comparative, bilingual, and language-learning lexicography. The corpus-based principles underpinning the dictionary and the dynamic display of information on two descriptive levels provide users with the potential to undertake comprehensive comparisons of headwords across languages according to their own needs. It is worth emphasising that the types of extension considered in this paper are relatively easy to implement since the underlying structures have already been established, experience exists in using them, and extensive corpora are available for numerous other European languages.

2. On the Treatment of German Confusables and Paronyms

In every language there are terms that are easily mistaken or confused. Often these are words that are separated by just one or two letters, sometimes also differing with respect to their prefixes or suffixes. As Room (1979: 1) has pointed out, "we say one

---

[1] OWID is a lexicographic platform combining 11 different German reference guides with a unified search. OWID$_{plus}$ is an experimental platform for diverse multilingual lexical-lexicographic data.

[2] Some websites and university language centres are already linking to the paronym dictionary. See, for example, https://www.sprachenzentrum.fu-berlin.de/slz/sprachen-links/deutsch/wortschatz/index.html.

word when we mean another, half-comprehend or misunderstand words, and encounter unfamiliar and 'hard' words daily. In short, we confuse words". Speakers of German confuse words for different reasons, such as close semantic meaning between near-synonyms (e.g. *kalt/kühl* (*cold/crisp*)). Confusion also occurs due to similarity or identity of spelling among homographs, e.g. der *Band*/das *Band*/die *Band* (*volume/ribbon/band*) or because the words are identical in sound, as is the case with homophones such as *Leib/Laib* (*body/loaf*). However, these rather prototypical cases do not account for a full classification of commonly confused terms, and the reasons for them and the effects of the confusion are rather complex. As well as lexical confusion, confusables can also be the result of grammatical confusion, such as difficulties arising from varying inflection, the usage of neologisms and loan words, and uncertainties surrounding word formation patterns, congruence and variable genders of nouns, to name but a few causes. Klein (2018) provides a detailed account of different cases of lexical confusion for German.

Paronyms are a specific group of confusables. They are usually pairs of lexical items that, in different ways, exhibit similarities in their meaning and/or form of expression. A large proportion of these are adjectives (*sportlich-sportiv*, *autoritär-autoritativ*), but paronyms also include verbs (*kodieren-kodifizieren-coden*, *referieren-referenzieren*) and nouns (*Methode-Methodologie-Methodik*). These kinds of words lead in some cases to uncertainty and confusion in usage among native speakers as well as learners of German as a foreign language, which may in turn cause misunderstandings, and numerous discussions on internet forums testify to this[3].

2.1 Confusables in German Linguistics and Lexicography

The most comprehensive theoretical approach to paronymy so far is offered by Lăzărescu (1999). His model treats paronyms from a structuralist point of view, accounting for language as a formal and logical system, and is not based on empirical evidence in real communicative situations. Looking at this relation from a language learner's perspective and with approaches used in translation studies, Lăzărescu developed an elaborate model based on strict formal criteria, primarily word formation and syntax. He aimed to establish clear-cut boundaries between paronymy and other phenomena of lexical confusion, such as homographs, homophones, lexical alternatives, false friends, etc. Still, fundamentally his model was not based on large amounts of empirical evidence of language use and consisted of the following main categories: phonetic-orthographic aspects (*Föhn/Fön*), morphological aspects (*Kinderliebe/Kindesliebe*), syntactic aspects (*schuld/schuldig*) and stylistic aspects (*essen/fressen*).

---

[3] See the largest question and answer platform in Germany, gutefrage.net, or the forum Deutsch als Fremdsprache.

Since then, the phenomenon of paronymy has not attracted much attention, either from a corpus linguistic or from a cognitive linguistic perspective. Until today, this rather complex phenomenon is still widely under-researched and we still lack a definition of the phenomenon from a usage-based perspective incorporating cognitive aspects. Currently, investigations also focus on research into paronymy as a complex lexical-conceptual phenomenon, aiming to develop an empirically driven classification of paronyms using diverse genres of language evidence and including written and spoken texts (cf. Mell et al., 2019). Today, we are concerned with an empirically sound, usage-guided investigation of commonly confused words based on large corpus data. So far, we have gained valuable insights into functions in specific contextual instances, communicative functions, thematic domains, discourse and style, text types and degrees of semantic similarity or contrast between easily confused words. Furthermore, speakers' attitudes can be expressed through their choice of paronyms, while encyclopaedic knowledge and cultural experience also play a key role in the use and interpretation of specific discourse-bound word pairs. These influential elements can be detected through collocations and grammatical constructions in context. They are more or less conveyed meta-linguistically and are therefore explicit in written communication. Overall, defining and classifying paronyms is a complex matter. Paronymy is not a lexical relation but a dynamic conceptual relation with cognitive implications which are visible on a linguistic level. In order to develop a full model, the identification of communicative functions and influences on lexical confusions is necessary. The effects of lexical misuse open up a number of questions concerning misunderstanding or semantic change.

With regard to German lexicography, this phenomenon has already received some attention (cf. Klein, 2018), but not since corpus data have been shaping the lexicographic landscape. Confusing words are, in fact, not systematically documented in standard dictionaries although they have been of interest to a small number of lexicographers for over a hundred years. The first dictionary by Wustmann (1891), rather random and limited in scope, followed a prescriptive tone, pointing to the correct usage of alternative plural forms. Specialised dictionaries were subsequently written by larger publishing companies such as Duden (Müller, 1973) and PONS (Pollmann, Wolk, 2010), appearing as new lexicographic authorities trying to disentangle all types of frequently confused words. Traditionally, their entries often instruct users or inform them about the "correct" use, the "correct" choice of lexemes or recommend avoiding certain terms. Some of the cases described in prescriptive reference guides behave differently in authentic language due to semantic change. Here, Hanks's (2013) observation with respect to English also holds true for German:

> These standards were based on the ill-defended assumptions that earlier forms of a language are somehow more 'correct' than contemporary forms and that etymology guarantees meaning. (Hanks, 2013: 514)

A dictionary solely dedicated to genuine German paronyms and accounting for them

from a contemporary descriptive perspective, however, was never systematically compiled until 2018.

2.2 Paronyms, Cognates and Equivalents in other Languages

On closer inspection of paronym cases and the headwords identified in the paronym dictionary project, it becomes apparent that these pairs – and also groups of paronyms (such as *provokant-provozierend-provokativ-provokatorisch* or *patriarchalisch-patriarchal-patriarchisch*) – constitute a very heterogeneous category. The linguistic uncertainty they provoke can be traced back to different causes, and the contextual confusion between words takes different forms among native speakers and learners of German. The latter group encounters very different problems depending on their own first language. As well as native expressions such as *knöchern-knochig-knöch(e)rig*, *lebenslang-lebenslänglich*, *fachkundig-fachkundlich*, paronyms include technical expressions (*kardiologisch-kardial*, *linguistisch-lingual*, *Parodontose-Parodontitis*) and loanwords (*fiktiv-fiktional*, *Anarchie-Anarchismus*), that is, expressions borrowed from other languages. It is precisely these expressions that frequently have cognates – words derived from the same etymon – in other European languages. If native speakers lack the relevant linguistic or encyclopaedic knowledge, then more significant communication problems can arise with these technical and borrowed expressions. If these terms differ in meaning, for example, in English and French, but less so in form, then they will cause difficulties for native speakers[4]. Particularly tricky are words where differences cause well-known mistranslations, especially so-called 'false friends'. If we compare German and English, for example, we quickly realise that the German adjectives *sensibel-sensitiv* do not correspond at all in meaning with the formally equivalent English pair *sensible-sensitive*. The question may also arise whether the English word *muscular* can be translated as both *muskulär* and *muskulös*. In exactly the same way, German learners of English will wonder about the contexts in which *versichern* is the most appropriate translation for *assure, ensure,* or *insure.*

3. The Monolingual Dictionary *Paronyme – Dynamisch im Kontrast*

Approximately 2,000 more or less common German paronyms were identified using corpus-based methods and then analysed and edited (Schnörch, 2015). The most frequent of them were included in the new paronym dictionary. The discrepancy between the number of potential headwords identified and the actual number of dictionary entries (around 350) is explained by the fact that a large proportion of the words were compounds or negations of other headwords. For example, the entry *Technik-Technologie* alone accounts for 65 compounds attested in the corpus e.g.,

---

[4] This applies in this case both to German-speaking learners of English or French, and to English or French speakers who are learning German.

Antriebstechnik-Antriebstechnologie, Atomtechnik-Atomtechnologie, Computertechnik-Computertechnologie.

The lexicographic practice involved in the dictionary *Paronyme - Dynamisch im Kontrast* (Storjohann, 2018; 2019) is notable, among other things, for the work on a relatively balanced corpus and the combination of complementary corpus-based methods with editorial analysis and interpretation. In the description of the lexicographic data, the empirical and descriptive approach takes into account conceptual referential aspects of the word's meaning as well as the connected documentation of linguistic and extra-linguistic information. As is appropriate to the object of enquiry, all the information is presented in contrastive entries of up to four headwords in a dynamic descriptive model, as the following example demonstrates. For entries such as *innovativ-innovatorisch* there is a relationship of similar meaning when the two expressions are applied to subject matter that can be characterised as '*neuartig'*, e.g. *Ansätze* (*approaches*), *Ideen* (*ideas*), *Denken* (*thinking*). They are not completely conterminous, because only *innovativ* can be used to refer to actions (*denken, arbeiten, gestalten*). Furthermore, in contrast to *innovatorisch*, the word *innovativ* can be used to describe products, technologies, and fields as '*originell'* (*original*) and people as '*kreativ'* and '*einfallsreich'* (*creative* and *inventive*). Hence, there are both similarities and differences in this case (see Figure 1).
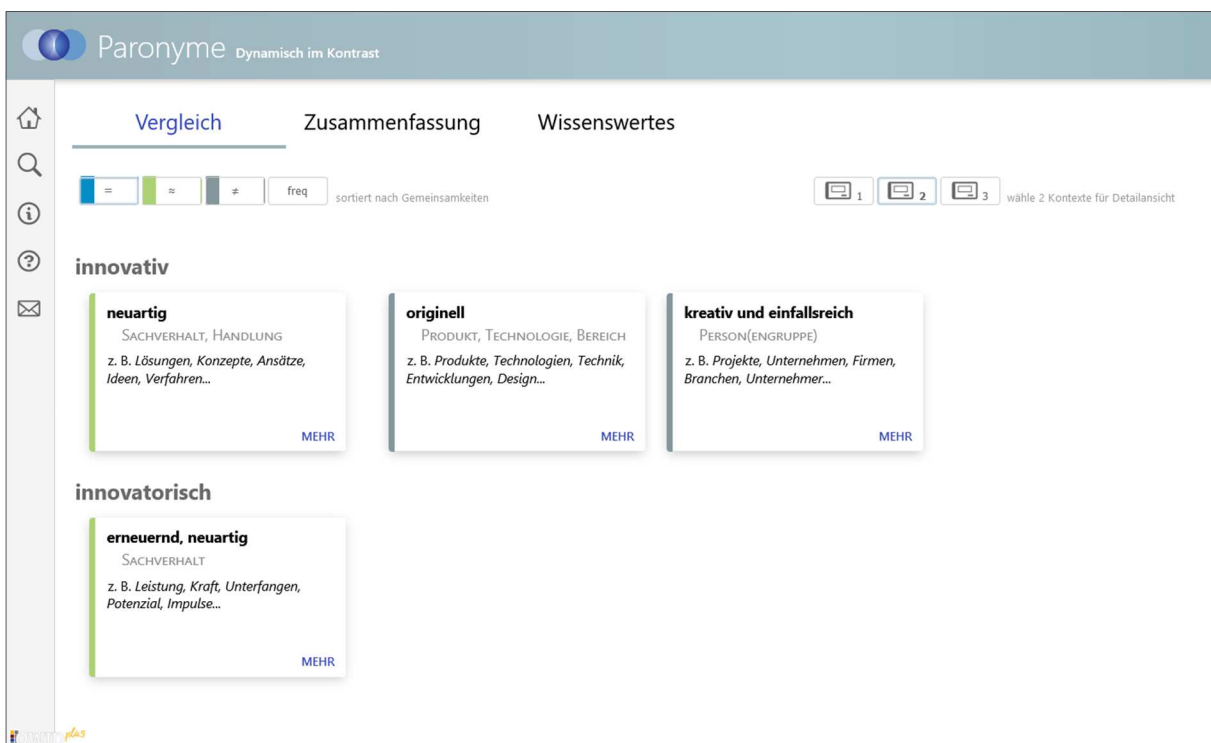

Figure 1: Entry for *innovativ* and *innovatorisch* in the comparative outline view

The individual contextual uses (shown in boxes/tiles) are listed horizontally for each headword and connected to one another vertically in cases of meaning overlaps in usage with the partner term. Colour is used to clearly mark semantically similar usage or usage that occurs only for one term or that is divergent; these are either positioned

directly beneath one another or are offset[5]. In this way, it is possible to see at a glance the number of available senses, as well as the semantic overlaps and differences between the relevant paronyms. This form of presentation provides both a compact comparative overview, arranged according to different linguistic parameters[6], and a means of navigation to the detailed view. In the detailed view, which represents an additional level of description, up to three senses can be selected per mouse click in order to study additional information – such as collocations, attested examples, and synonyms – directly alongside one another (see Figure 2).
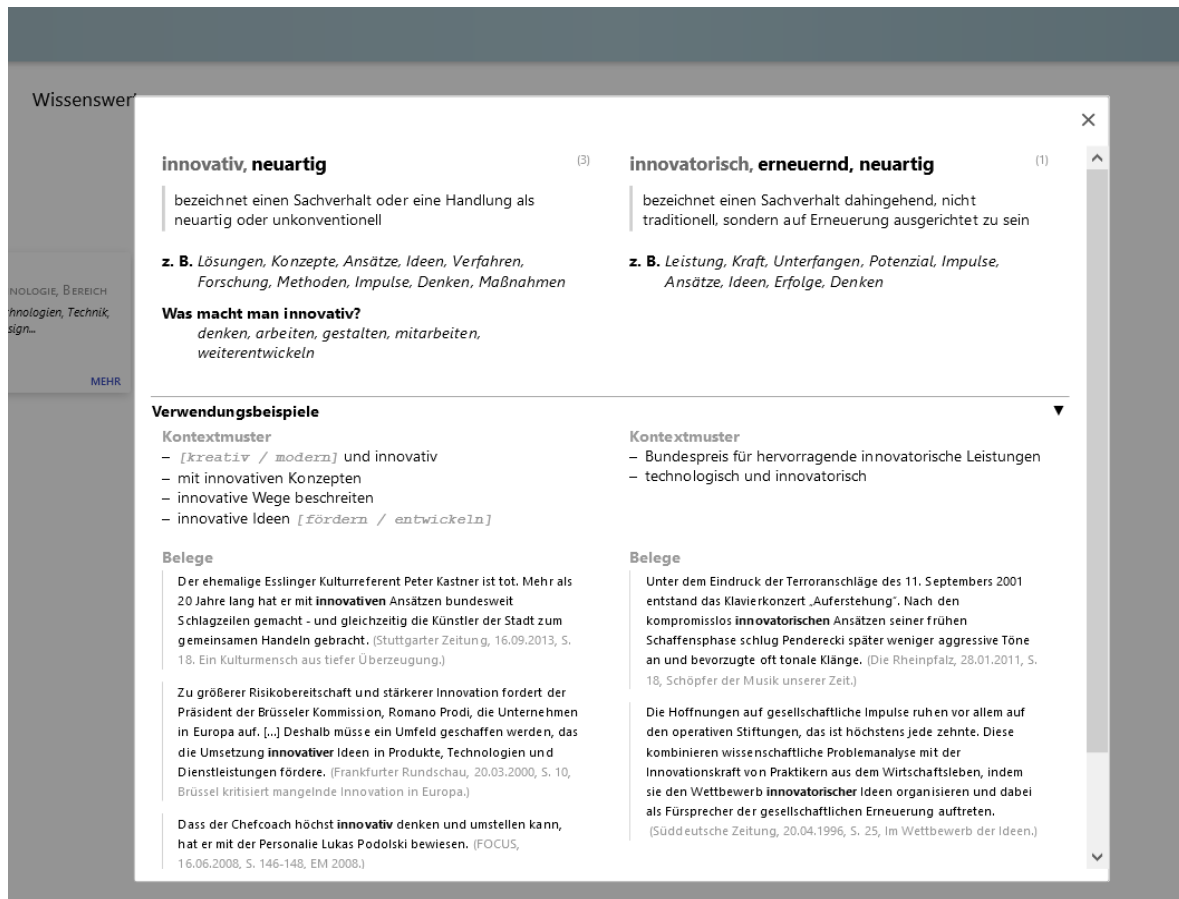
Figure 2: Detailed view of the semantically similar uses of *innovativ* und *innovatorisch* to mean '*neuartig*' (*new*).

The attested examples of usage are selected and edited in such a way that, in cases where the context is similar, each headword is documented together with the same collocation. The aim of this is to illustrate contextual interchangeability in cases of synonymous contexts (here, for example, *innovative/innovatorische*

---

[5] Individual contextual senses that are offset from one another become particularly important when the two expressions are used in different contexts, not just one of the headwords as in the case shown in Figure 1 (cf., for example, the entry *autoritativ-autoritär* in the paronym dictionary).

[6] For example, a menu makes it possible to sort the uses in tiles also by frequency of occurrence.

Ansätze/approaches, *Ideen/ideas*). In this way, overlaps are illustrated concretely in real language. In the same way, different reference objects are manifested linguistically through collocations, thereby highlighting the differences between the paronyms and demonstrating those differences with examples. For instance, there is an attested example which illustrates the use of *innovativ* with the verb *denken* (*to think*) which does not appear for *innovatorisch*, because the latter term does not occur directly together with verbs. This is the main point of difference in this specific usage.

4. A Possible Bilingual Dictionary

While the new paronym dictionary enables us to check the fine differences in use between German expressions that are similar in form, there are scarcely any comparable reference works for other languages. However, there is certainly awareness in other languages of the phenomenon of paronymy. For English, Room's (2000) *Dictionary of Confusable Words* is a work that is similar in content. However, it is not comparable to the German paronym dictionary because of its very small scope, its depth of description, presentation, methodology, and the fact that it is not up to date. A brief glance at the headword list in the German paronym dictionary reveals formal equivalents in English, with some examples given in Table 1.

German	English
Akzeptanz-Akzeptatibilität	*acceptance-acceptability*
anarchisch-anarchistisch	*anarchical-anarchistic*
autoritär-autoritativ	*authoritarian-authoritative*
elektrisch-elektronisch	*electric-electronic*
fiktiv-fiktional	*fictional-fictitious*
human-humanitär	*human-humanitarian*
innovativ-innovatorisch	*innovative-innovatory*
konzeptuell-konzeptionell	*conceptual-conceptional-conceptive*
legislativ-legislatorisch	*legislative-legislatorial*
minimal-minimalistisch	*minimal-minimalistic*
mysteriös-mystisch-mythisch-mythologisch	*mysterious-mystic-mythical-mythological*
originell-original-originär	*original-originative-originary*
sensibel-sensitiv	*sensible-sensitive*
unsozial-asozial-antisozial	*unsocial-asocial-antisocial*

Table 1: Examples of German paronym pairs and their formal equivalents in English

An examination of internet forums also shows that English native speakers experience similar uncertainty to German native speakers with these kinds of pairs (cf. *innovative-innovatory* in Figure 3).

Figure 3: Native speaker's question about *innovative*/*innovatory* in the forum
english.stackexchange

In addition to native speakers' uncertainty concerning the appropriate use of these expressions, German-speaking learners of English may also wonder about the most suitable translation for the two German adjectives *innovativ-innovatorisch*. In the

standard bilingual resources, they will come across *innovative* and *innovatory*. However, they will learn nothing about exactly which contexts they are used in, whether they behave analogously to *innovativ-innovatorisch*, or whether the same referential differences apply to the description of products, fields, and people, or the like. And by the same token, English-speaking learners of German as a foreign language may be uncertain as to whether the German adjectives *innovativ* and *innovatorisch* can be used as translations for the English terms. Despite the different perspectives of the users, very similar questions arise. If the German paronym dictionary were to be supplemented with a bilingual component, all the preceding questions could be answered. We would require only an extension of the content of the existing monolingual dictionary following the same principles of lexical analysis and documentation in order to achieve a reliable bilingual comparison.

If we synchronise the entries for (Gm.) *innovativ-innovatorisch* and (Eng.) *innovative-innovatory* and connect them to one another, then they can be looked up both as individual lemmas and as a pair, and both monolingually and bilingually. As such, we can cater for all the groups of users mentioned previously and their different requirements. Figure 4 shows what such an entry might look like. The terms are arranged as pairs in individual languages, one beneath the other. The optimum here would undoubtedly be to have an additional option to arrange them by lemma, so that *innovative*, for example, could be positioned directly under *innovativ*, and *innovatory* under *innovatorisch*. Flexible modes of presentation already exist, which take into account different organising principles, sorting individual usages, for example, according to their frequency.

The hypothetical dictionary entry constructed for illustrative purposes was created using Sketch Engine and an English-language web corpus. This is not a completely comparable word analysis, since the underlying data and methods of analysis for the German adjective pair differ (cf. Storjohann, 2021). The purpose of Figure 4 is simply an illustrative representation of a possible bilingual resource, rather than the complete accuracy of the English lexicographic content [7]. The English corpus is very comprehensive and reflects the language of everyday public communication. Thus, it can be assumed that the meanings identified do not diverge too greatly from linguistic reality. As with *innovativ-innovatorisch*, both similarities and differences were discovered for *innovative-innovatory*. However, they are positioned slightly differently for the two pairs. The uses marked in blue demonstrate strong overlaps and can be considered essentially identical. The green contexts have similarities, but with small semantic nuances. For example, there is a key difference between *innovative-innovatory*

---

[7] It is possible that the content of the English articles might be different if more representative data was used. Since Figure 4 presents a hypothetical word-entry which follows the structure of an existing German entry from the paronym dictionary, it includes information exclusively in German, such as the terminology '*z. B.*', '*Belege*' or '*Kontextmuster*'. These would have to be in English.

in the context of '*new and original*' insofar as *innovative* occurs with verbs that denote processes.

Figure 4: A hypothetical cross-language dictionary entry in the comparative outline view

By contrast, *innovatory* does not modify any verbs, so that the reference PROCESS does not appear in the short paraphrase. *Innovativ* in the sense of '*neuartig*' and *innovatorisch* in the sense of '*erneuernd, neuartig*' differ from one another in their short paraphrase and in the fact that, analogous to the English pair, verbs that denote actions and processes can only be further characterised as *innovativ*. In this case, the

information HANDLUNG (PROCESS) is also missing from the reference underneath. Leaving aside possible divergences as a result of insufficient alignment between the two corpora, this outline view nonetheless reveals the following:

- the uses exhibited by each adjective
- the relationship between the individual headwords in each pair
- the relationship between the two pairs.

Detailed views of multiple contexts and usages can also be compared between the two languages. As an example, contexts have been chosen here which refer to products, technology, or fields and which were attested for three of the four adjectives (*innovativ 'originell'*, *innovative* and *innovatory 'novel, groundbreaking'*), but not for *innovatorisch* (see Figure 5).

This form of parallel view preserves the direct comparison of paraphrases, domains/referential frames, collocations, and illustrative examples which again show selected and, as far as possible, analogous contextual partner terms being used with the corresponding adjectives (here *Produkte/products*, *Technik/technology*, *Wirtschaft/economy*, *activities*). The parallel placement of information highlights the strong commonalities. Similarly, the less strongly overlapping contexts can also be considered in more detail in this way.
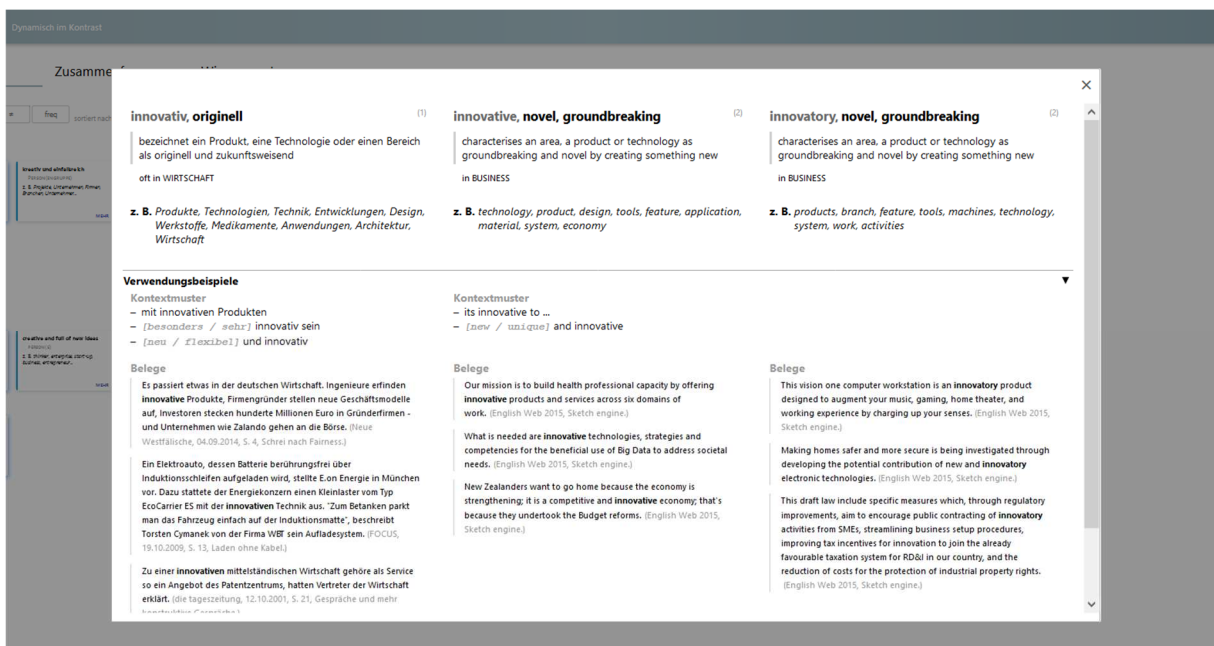

Figure 5: Hypothetical cross-language dictionary entry in detailed view

5. A Multilingual Reference Work and Portal

It is not a big step from a bilingual reference work to the construction, with additional modules, of a comprehensive multilingual resource. Here, we would restrict ourselves to

European languages since, as has already been emphasised, it is apparent that there are a series of word pairs among loanwords, including internationalisms, which may also create uncertainty or confusion in other European languages; possible examples would include: Gm. *effektiv-effizient*, Eng. *effective-efficient*, Fr. *efficace-effectif-efficient*, It. *efficace-efficiente*. It is difficult to assess the extent to which these kinds of word pairs occur in the individual languages; at the same time, there is a clear interest in comparability. There is not always an equivalent pair in each European language for each paronym pair with a Latin or French root. However, even this information is valuable from a learner's perspective. Even translation equivalents that do not exhibit any paronyms in the chosen language (e.g. Fr. *innovant–novateur* for Gm. *innovativ-innovatorisch*) can be indicated, and important information provided about translation problems[8]. The user chooses any two languages for comparison from a menu (see Figure 6).
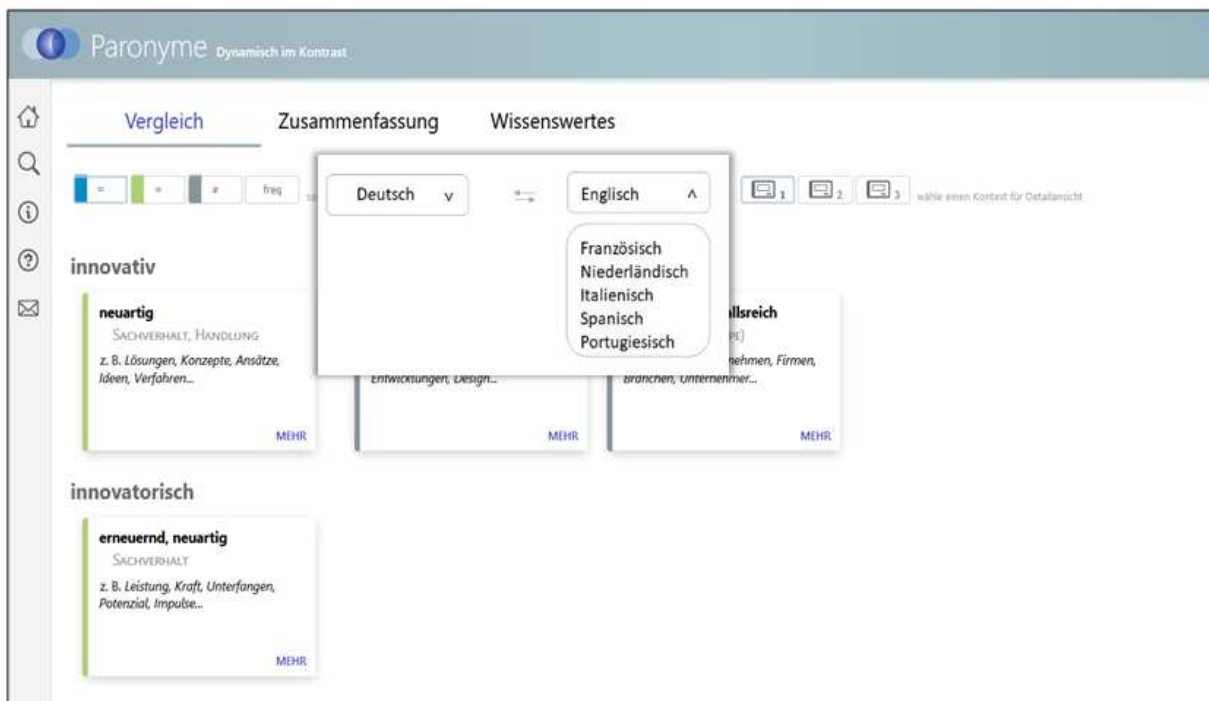

Figure 6: Possible language selection via a menu

Corresponding content is overlaid dynamically, such as the choice of language-specific lists of headwords in the search options (on the left in the menu in Figure 6). The number of potential users is increased considerably with the addition of multiple languages. In order to build multilingual data in a consistent way and create a complex multilingual reference system, it is not enough to simply put individual dictionaries together. The exact lexicographic content to be shown, the level of description at which it can be presented, and how the interfaces are best realised would all have to be considered with a freshly conceived, common entry architecture.

---

[8] This would mean that, ultimately, this was, in terms of content, much more than a pure paronym dictionary.

Of course, the foreign language perspective (for example, translation) comes more strongly into focus each time languages are compared in a reference work. In this context, it is possible to imagine extensions involving foreign language learning exercises, in which these dictionary resources are not limited to their reference function, but are instead extended to become a work portal. Having multiple bilingual dictionaries available, which could be selected in a targeted way, would open up a wide-ranging, convenient, and flexible reference space for this specific phenomenon, creating a comprehensive multilingual language resource which documents easily confused, specifically paronymic expressions from a comparative European perspective.

To construct this kind of resource would require comparable corpora or completely parallel corpora, as well as comparable methods of analysis. Sketch Engine would provide a tool to investigate more accurately relationships across languages by means of multilingual collocation profiles. Naturally, there are limits to what can be presented with the current form of the paronym dictionary. Already, if the language menu were to be supplemented with a third or fourth language it would scarcely be possible to maintain a compact overview of the content. In the detailed parallel view, it is also not possible to select any number of boxes and arrange them next to one another. For that, new and creative solutions would be necessary.

6. Conclusion

Studying linguistic data has been shaping our understanding of how meanings are constructed through context. German user studies (e.g. Müller-Spitzer, 2014) of online dictionaries have increased our focus on users' interests, and hypertext structures have transformed the way we present lexicographic information. It should be noted that the ideas presented above are mere lexicographic fiction, and so far, no user study has been conducted, and the scope of potential users has not been discussed thoroughly. Moreover, options as to linking such a specific resource with more general dictionaries to complement those or integrating it into even larger lexicographic enterprises have not been considered yet. Certainly, one should pursue such endeavours first. Instead, this paper reflects on possibilities. It is a genuine call for tools which extend across languages and across existing resources in order to deal with cases of linguistic uncertainty.

Paronyme – Dynamisch im Kontrast is a project which is structured monolingually and which has chosen new forms of presentation in order to compare, in different ways, the linguistic patterns and structures of easily confused words. In the process, it has been able to take into account flexible reference queries determined by the user. The Design Thinking approach that has been used offers the potential as a platform, both conceptually and in terms of language technology, to document in lexicographic form the different results of contrastive lexical analyses. As such, it does not have to remain limited to a single language and is able to make allowances for a range of different applications. In this way, the spectrum of lexicographic description can be expanded

from a monolingual reference work to one that is bilingual or multilingual. At the moment, it is possible to undertake dynamic comparisons between words and their uses within the German language; it is conceivable that, by analogy, corresponding comparisons could be offered beyond that, between two or more languages chosen at will. In addition, it could be a model for similar digital dictionaries with a principal focus on linguistic comparison, for example, synonym or antonym dictionaries. What has been outlined here is a visionary digital paronym network, but it is worth emphasising that this is an eminently realisable vision of a resource that would be of inestimable value.

7. References

Forum Deutsch als Fremdsprache. Accessed at https://www.deutsch-als-fremdsprache.de/austausch/forum/read.php?4,45474. (20 May 2021)

English-stackexchange. Accessed at: https://english.stackexchange.com/questions/287083/innovative-vs-innovatory. (20 May 2021)

elexiko. *Online-Wörterbuch zur deutschen Gegenwartssprache.* Accessed at: https://www.owid.de/docs/elex/start.js. (20 May 2021)

gutefrage.net – *Deutschlands größte Frage-Antwort-Plattform.* Accessed at https://www.gutefrage.net/. (20 May 2021)

Klein, W. P. (2018). *Sprachliche Zweifelsfälle im Deutschen. Theorie, Praxis, Geschichte.* Berlin & Boston: de Gruyter.

Lăzărescu, I. (1999). *Die Paronymie als lexikalisches Phänomen und die Paronomasie als Stilfigur im Deutschen.* Bukarest: Anima.

Mell, R., Schnörch, U. & Storjohann, P. (2019). Korpussemantische Einflussfaktoren auf Eigenschaften und Funktionen von Paronymen. *Deutsche Sprache* 1/2019, pp. 53–67.

Müller, W. (1973). *Leicht verwechselbare Wörter.* Duden Taschenwörterbücher Vol. 17. Mannheim: Bibliographisches Institut.

Müller-Spitzer, C. ed. (2014). *Using Online Dictionaries.* Berlin & Boston: de Gruyter.

OWID. *Online-Wortschatz-Informationssystem Deutsch* (2008ff.) Accessed at: https://www.owid.de/. (20 May 2021)

OWID$_{plus}$. Accessed at: https://www.owid.de/plus/index.html. (20 May 2021)

Paronyme – Dynamisch im Kontrast. Accessed at: https://www.owid.de/parowb/. (20 May 2021)

Pollmann, Ch. & Wolk, U. (2010). *Wörterbuch der verwechselten Wörter. 1000 Zweifelsfälle verständlich erklärt.* Stuttgart: Pons.

Rooms, A. (2000). *Dictionary of Confusable Words.* London: Routledge.

Schnörch, U. (2015). Wie viele Paronympaare gibt es eigentlich? Das Zusammenspiel aus korpuslinguistischen und redaktionellen Verfahren zur Ermittlung einer Paronymstichwortliste. *Sprachreport* 4, pp. 16–26.

Sketch Engine. (Korpus English Web 2015 enTenTen15). Accessed at

https://www.sketchengine.eu/. (20 May 2021)

Storjohann, P. (2021). Korpusmethoden zur Erarbeitung eines Wörterbuches leicht verwechselbarer Ausdrücke. In S. Steinmetz, D. Strömsdörfer, M. Willmann & N. Wulff (eds.) *Deutsch weltweit - Grenzüberschreitende Perspektive auf die Schnittstellen von Forschung und Vermittlung* (=MatDaF 104). Göttingen: Universitätsverlag, pp. 207–288.

Storjohann, P. (2019). Paronyme – Dynamisch im Kontrast. Ein kognitiv ausgerichtetes, multifunktionales, dynamisches Nachschlagewerk. *Deutsche Sprache* 1, pp. 82–94.

Storjohann, P. (2018). Commonly Confused Words in Contrastive and Dynamic Dictionary Entries. In J. Čibej, V. Gorjanc, I. Kosem & S. Krek (eds.) *Proceedings of the XVIII EURALEX International Congress, EURALEX 2018.* Ljubljana: Znanstvena založba, pp. 187–197.

Wustmann, G. (1891). *Allerhand Sprachdummheiten: kleine deutsche Grammatik des Zweifelhaften, des Falschen und des Häßlichen.* Grunow: Leipzig.