

Total reduplication as a productive process in German*

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Abstract

In this paper I discuss two types of total reduplication that prove to be productive in Contemporary German: REAL-X Reduplication (RXR) and Durative Reduplication (DR). The function of the former, RXR, is to restrict the meaning of a word to its prototypical content (cf. *Buchbuch* ‘book-book; real book, not an e-book’). Based on corpus data I address the question whether we are dealing with reduplication or with compounding here. As a result it will become apparent that the process of RXR, while showing some parallels to compounding, lacks crucial characteristics of compounding and is therefore to be seen as a case of reduplication. The latter type of total reduplication, DR, involves the doubling of a bare, inflectionless verb stem, thus encoding durativity of the denoted event or activity (cf. *grummel-grummel* ‘grumble-grumble, to be continuously grumbling’). Finally I sketch a path of diachronic development of the emergence of DR from ideophones.

Keywords: total reduplication, identical constituent compounding, durative, German

1. Introduction

Although reduplication in general and total reduplication in particular is a typologically rather widespread phenomenon, there are several areas in the world where productive reduplication processes are taken to be entirely absent. One well-known area of this kind is Europe (Rubino 2005; Stolz 2008). Accordingly, German counts as a “reduplication avoider”, where no instances of genuine (total) reduplication can be found. Reference grammars of German and comprehensive works on the morphology of German list only a few fossilised, semantically opaque forms which take a peripheral position within the lexicon of German.¹

In spite of these observations, however, there are several niches of total reduplication even in German. Here one encounters various types of reduplication phenomena that have developed only recently, but that can be regarded as results of fully productive processes.

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¹ These fossilised word forms include, for example, words from child language, such as *Mama* ‘mummy’, *Popo* ‘botty’, *Pipi* ‘wee-wee’, and a few other colloquial expressions like *plemplem* ‘doolally’ and *Tamtam* ‘fuss’ (see also section 2, ex. (5)).

In this paper, I will focus on two of these processes:

(i) REAL-X Reduplication in German

(also called “contrastive focus reduplication”, Ghomeshi et al. 2004, “identical constituent compounding”, Hohenhaus 2004, Finkbeiner 2014, or “clones”, Horn, to appear, a,b)

- (1) *Ich will einfach nur so Blumen-Blumen.*
I want simply only PTCL flowers-flowers
'I just want **plain flowers**.'

(ii) Durative Reduplication (reduplication of uninflected verbs)²

- (2) **freu-freu** *Der erste Award hat meinen Blog erreicht :))*
delight-delight the first award has my blog reached
being glad 'The first award for my blog!'

Within the remainder of this article I am going to present data from German in order to give a comprehensive descriptive account of the formal and functional characteristics of these two processes. On these grounds I will discuss what arguments can be brought forward in favour of a reduplication analysis for these phenomena – and whether there are objections against such an analysis.

The data I rely on are drawn from three sources:

- a corpus compiled by Julia Richling in 2007, which contains all entries in a newsgroup from 1992–2007 (55,620 entries) and all entries in a chat forum from 2000 to 2007 (> 1 million entries) (cf. Richling 2008)
- the DeWaC Corpus, a POS-tagged and lemmatised web-crawled corpus which was built up between 2005 and 2007 (1.7 billion words); the crawl was limited to .de domains (cf. Baroni et al. 2009 and the WaCKy website: <http://wacky.sslmit.unibo.it/doku.php?id=corpora>)
- when appropriate the corpus data were complemented by manual Google searches

The paper is structured as follows:

To give a general account of the status of reduplication in German I am first going to outline the traditional view adopted within German studies, where reduplication is considered as a marginal, insignificant process in German. Second, I will present a brief discussion of two minor and until now un-addressed reduplication phenomena, which prove to be highly productive: first, rhyme and ablaut reduplication in internet user names and, second, Turkish-style *m*-reduplication. The latter phenomena give proof of the fact that the domain of reduplication is currently – if rather small – a highly dynamic one in German (Section 2).

² These uninflected verbs are actually bare verb stems without the otherwise obligatory infinitive suffix *-en*.

In Section 3, I turn to REAL-X Reduplication, a type of total reduplication that has been noticed among linguists only very recently. The function of this operation is to restrict a noun, adjective, adverb or verb to its prototypical meaning yielding the exclusion of any far-reaching connotations or metaphoric meanings (cf., for example, *Buchbuch* ‘real book, book of paper, not an e-book’). This is the reason for calling it REAL-X Reduplication (Stolz et al. 2011), a term I will adopt (other labels are ‘contrastive focus reduplication’ and ‘identical constituent compounding’, see (i) above). Based on corpus data I address the question whether we are dealing with reduplication or with compounding here. As a result it will become apparent that the process of REAL-X Reduplication, while sharing some features with compounds, lacks crucial characteristics of compounding which leads to an analysis as reduplication.

In Section 4, I will discuss total reduplication of uninflected verbs, which serves the function of encoding duration of the denoted event or activity. Reduplicated uninflected verbs are strictly related to the communicative situation in which they are uttered. As opposed to simple uninflected verbs, reduplicated forms entail durative/iterative meaning (cf. *grummelgrummel* ‘grumble-grumble, to be grumbling continuously’). Aside from data-based description and analysis I present a hypothesis concerning the emergence of Durative Reduplication from ideophones.

Section 5 sums up the main findings and presents conclusions that can be drawn from the study.

2. The status of reduplication in German

2.1 The well-known cases of unproductive reduplication in German

In standard grammars and text books on German, little attention is paid to reduplication as a phonological or morphological process. Even among phonologists and morphologists reduplication appears to be a somewhat neglected topic. Detailed work is rather scarce here (but see, for example, Bzdęga 1965; R. Wiese 1990; Schindler 1991; Groß 2000); this might be attributed to the insignificant status that is ascribed to reduplication processes in German in general.

According to the reference books, the domain of reduplicative forms is limited to small areas of the lexicon. These include on the one hand very colloquial expressions, which come almost uniformly with a derogatory, pejorative flavour, and on the other hand small groups of onomatopoeic words, phrases from baby talk or children’s speech and pet talk.³

German reduplication can be subdivided into three major formal types:⁴

- (i) Rhyme or Echo Reduplication: The onset of the reduplicated part (= the reduplicant) differs from the onset of the copied part (= the base), that is to say, the initial consonant (cluster) of the base is replaced by a different consonant in the reduplicant.⁵ Examples are given in (3):

³ See, among others, Ortner & Ortner (1984: 104), Donalies (2002: 91f.), Lohde (2006: 43f.), Fleischer & Barz (2012).

⁴ Bzdęga (1965) lists a few more formal types, for which the status as reduplication or even their mere existence in the German language remains doubtful, however (see R. Wiese 1990 for discussion).

(3) Rhyme Reduplication (or: Echo Reduplication)

<i>Remmidemmi</i> _N	‘shindy’
<i>Klimbim</i> _N	‘useless stuff’
<i>Kuddelmuddel</i> _N	‘mess’
<i>Heckmeck</i> _N	‘fuss’
<i>ruckzuck</i> _A / <i>ruckizucki</i> _A	‘ricky tick’
<i>ratzfatz</i> _A	‘in a jiffy’

(ii) Ablaut Reduplication: The nucleus of the root syllable of the base undergoes systematic alteration in the reduplicant; (4) lists some examples:⁶

(4) Ablaut reduplication

<i>Schnickschnack</i> _N	‘knick-knack’
<i>Krimskrams</i> _N	‘odds and ends’
<i>Wirrwarr</i> _N	‘clutter’
<i>Singsang</i> _N	‘singsong’
<i>pillepalle</i> _A	‘easy-peasy’

(iii) Total Reduplication: Base and reduplicant are identical, like in the examples in (5):

(5) Total Reduplication

<i>Tamtam</i> _N	‘fuss’
<i>Pinkepinke</i> _N	‘dough’ [= money]
<i>plemplem</i> _A	‘doolally’

The examples illustrated in (3)–(5) are not only small in number but also strongly lexicalised and often semantically entirely intransparent. Normally, neither does the respective base exist as a word nor does it convey any conventional meaning. Thus, it is impossible to apply this kind of reduplication freely to produce new coinages. There are a few cases from the lists in (3)–(5), however, that can be traced back to existing simplices, sometimes only through a phonetic resemblance, see the examples in (6) and (7):

(6)	a.	<i>Krimskrams</i> _N	‘odds and ends’
		<i>Kram(s)</i> _N	‘stuff’
	b.	<i>Schickimicki</i> _N	‘trendy type’
		<i>schick</i> _A	‘fancy, fashionable’
	c.	<i>Wirrwarr</i> _N	‘clutter’
		<i>wirr</i> _A	‘scattered’
	d.	<i>ruckzuck</i> _A	‘ricky tick’
		<i>Ruck</i> _N , <i>zuck</i> _{V-}	‘jolt’, ‘to dart’

⁵ I will use the established terms ‘base’ and ‘reduplicant’ throughout this paper (following, e.g., Inkelas & Zoll 2005; Rubino 2005); other labels that can be found in the literature are ‘original’ and ‘copy’ (Stolz 2008); ‘reduplicand’ and ‘image’ (Mel’čuk 1996; Stolz et al. 2011).

⁶ In some words an extra syllable can be inserted between base and reduplicant, e.g. in *holterdipolter* ‘helter-skelter’.

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|-----|----|----------------------------------------------------------------|-------------------------------|
| (7) | a. | <i>Singsang</i> _N
<i>sing</i> _{V-} | ‘singsong’
‘to sing’ |
| | b. | <i>Klingklang</i> _N
<i>kling</i> _{V-} | ‘tinnabulation’
‘to sound’ |
| | c. | <i>Mischmasch</i> _N
<i>misch</i> _{V-} | ‘hodgepodge’
‘to mix’ |
| | d. | <i>Wischiwaschi</i> _N
<i>wisch</i> _{V-} | ‘wishy-washy’
‘to wipe’ |

The most consistent, and semantically most transparent pattern within these groups is the one illustrated in (7). Here, a verb stem is iterated rightwards, with the reduplicant undergoing ablaut (even if historically no ablaut form exists, as is the case with (7c,d)). In contrast, the examples in (6) include copying processes to the left as well as to the right and a number of undecidable cases (which parallels the semantically opaque lexemes, where it is undecidable by definition, which part constitutes the base and which the reduplicant).

Nevertheless, this kind of word formation can likewise hardly be regarded as a productive process, as it is not at all freely applicable to other verbs, even if phonetically similar. The hypothetical morphological constructions in (8) are ungrammatical and, even if seen as nonce words, hardly interpretable:

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|-----|----|----------------------------------------------------------------------|------------------|
| (8) | a. | * <i>Schwimmschwamm</i> _N
<i>schwimm</i> _{V-} | –
‘to swim’ |
| | b. | * <i>Springsprang</i> _N
<i>spring</i> _{V-} | –
‘to jump’ |
| | c. | * <i>Sinnsann</i> _N
<i>sinn</i> _{V-} | –
‘to ponder’ |
| | d. | * <i>Zischzasch</i> _N
<i>zisch</i> _{V-} | –
‘to hiss’ |

These facts lead to the conclusion that no constructional meaning results from the duplication of the potential simplex, be it partial or total. From this it follows that reduplication is considered as only weakly productive in German – which is the general consensus among most scholars.

2.2 Productive types of partial reduplication

2.2.1 Reduplication of proper names

One so far underappreciated, if presumably long-standing, exception to the alleged lack of productivity is, however, the area of proper names. For the sake of producing intimacy or in order to express mild depreciation, proper names can obviously undergo rhyme reduplication, and, less frequently, also ablaut reduplication, freely. In his study on rhyme and ablaut reduplication in German Kentner (2013) presents a broad range of newly elicited data supporting this point. Kentner’s data is primarily drawn from internet communication; they consist mainly of self-created user names:

Apparently, the obligation to create a unique username in internet forums leads to various kinds of augmentation (e.g. *vera123*, *Vera1982* < *Vera* etc.), and reduplication serves the same purpose (*Veramera*), while adding a hypocoristic or facetiously deprecatory connotation.

(Kentner 2013: 9)

As Kentner shows, the patterns used for this purpose are diverse, including rightward rhyme reduplication and leftward and rightward ablaut reduplication (the gender of the names is given in brackets):

(9) Rhyme reduplication⁷

user name	usual proper name
a. <i>Heinzpeinz</i>	<i>Heinz</i> (m.)
b. <i>Matzpatz</i>	<i>Matze</i> (m.) (short form of <i>Matthias</i>)
c. <i>Andimandi</i>	<i>Andi</i> (m./f.) (short form of <i>Andrea(s)</i>)
d. <i>Silkepilke</i>	<i>Silke</i> (f.)
e. <i>Klausipausi</i>	<i>Klaus</i> (m.)

(10) Ablaut reduplication

user name	usual proper name
a. <i>Wiebkewabke</i>	<i>Wiebke</i> (f.)
b. <i>Frinzfranz</i>	<i>Franz</i> (m.)
c. <i>Indiandi</i>	<i>Andi</i> (m./f.)

These are only a few examples of the large quantity that Kentner has extracted from the internet. According to Kentner's data set, total reduplication does not occur in the process of creating user names. In fact, he considers total reduplication in general as being represented only by "stray forms" and thus as being not productive at all in German (Kentner 2013: 6). Contrary to this view, total reduplications can easily be found in user names used on online platforms such as chat rooms, forums, and social networks. The examples in (11) are drawn from various websites of this kind. They are used by a large amount of users and the list could easily be continued:⁸

(11) Total reduplication

user name	usual proper name
a. <i>heinzheinz</i> ^[a]	<i>Heinz</i> (m.)
b. <i>TinaTina</i> ^[b]	<i>Tina</i> (f.) (short form of <i>Christina</i> , <i>Bettina</i> , <i>Martina</i> or similar names)

⁷ Here, the onset of the base is replaced by *p-/m-* or by *pop-*; the latter form creates an extra syllable in the process (similar to other rhyme reduplications of the type *holter(di)polter* (see fn. 6)); cf. the attested examples in (i):

(i) *Andipopandi* (< *Andi* (m./f.)); *Annepopanne* (< *Anne* (f.)); *Axelpopaxel* (< *Axel* (m.)); *Ingepopinge* (< *Inge* (f.)); *Sandrapopandra* (< *Sandra* (f.)); *Steffipopeffi* (< *Steffi* (f.)); *Tanjapopanja* (< *Tanja* (f.))

Kentner excludes forms like these from his analysis. I think, however, it is worth noting that they appear quite regularly, that is, much more often than such rare forms as *holterdipolter*. As far as I can judge from my unsystematic search, insertion of *pop-* is limited to disyllabic words. If *pop-* insertion takes place in trisyllabic or polysyllabic names, the modified reduplicant is reduced to two syllables like in the attested forms *Susannepopanne* (< *Susanne* (f.)); *Johannespopannes* (< *Johannes* (m.)); *Katharinapopina* (< *Katharina* (f.)) and *Christianepopane* (< *Christiane* (f.)).

⁸ The respective sources are given in the reference list according to the superscript indices, see the subsection 'internet resources'.

- c. *Andiandi*^[c] *Andi* (m./f.)
 d. *Tanjatanja*^[d] *Tanja* (f.)
 e. *Klausklaus*^[e] *Klaus* (m.)

So, total reduplication, too, seems to be a freely applicable means for creating unique, individual user names for internet use.

Moreover, one might consider the age of this pattern (a question Kentner does not address). To me, it seems to be an old, established way of wordplay or spoof. In the light of these facts, it comes as a surprise that this is not mentioned at all in former studies on German reduplication. Reduplication in proper names can be found, for example, in folk songs and nursery rhymes. The examples in (12)–(14) show folk songs displaying different reduplication types each. They go back as far as the beginning of the 20th century:

(12) Rhyme reduplication

- a. ***Ilse-bilse***, *keiner will se* [spoofed name: *Ilse* (f.)]
 Ilse-RED nobody wants her
kam der Koch, und nahm se doch
 came the cook and took her after.all
 ‘**Ilsebilse**, nobody wants her, then the cook came and took her after all.’
 (Lewalter 1911, rhyme no. 405)

- b. ***Jochen Pochen*** *laat mi läbn* [spoofed name: *Jochen* (m.)]
 Jochen RED let me live
ick will di hunnert Daler gäbn
 I will you hundred thalers give
 ‘**Jochen Pochen**, let me live, I’m going to give you one hundred thalers.’
 (Erdmann 1960: 12)

(13) Ablaut reduplication

- Sching Schang*** *Schänk-el-chen* [spoofed name: *Jean* (m.)]
 RED Schang Schang-DIM-DIM
setz dich aufs Bänk-el-chen
 sit yourself on.the bench-DIM-DIM
Bänk-el-chen kracht
 bench-DIM-DIM crashes
Schänk-el-chen lacht!
 Schang-DIM-DIM laughs
 ‘**Sching Schang** Schänkelchen, sit down on the little bench, the bench crashes, Schänkelchen laughs!’
 (Lewalter 1911, rhyme no. 430)

(14) Total reduplication

- Jochen Jochen*** *Jakob* [spoofed name: *Jochen* (m.)]
du büst ’n grooten Schaapskopp
 you are a big sheep’s.head
 ‘**Jochen Jochen** Jakob, you are a big blockhead.’
 (Erdmann 1960: 12)

In light of these data it is justified to conclude that, at least within the field of proper names, reduplication is a productive process which has been continually available for more than a hundred years (and maybe much longer).

In addition to this phenomenon – and in contrast to what traditional accounts of German reduplication maintain – there are a number of further reduplication processes observable in German that are perfectly productive. All of these are very new linguistic developments.

2.2.2 Turkish-style *m*-reduplication

One of these productive processes of rhyme reduplication will be mentioned briefly here. This kind of reduplication resembles the so-called *m*-reduplication in Turkish, whose function is “to generalise the concept denoted by a particular word or phrase to include other similar objects, events or states of affairs” (Göksel & Kerslake 2005: 99), cf. the examples in (15):

- (15) a. *dergi mergi oku-mu-yor* [Turkish]
 periodical RED read-NEG-HAB
 ‘He doesn’t read **journals or periodicals or magazines.**’
 (Lewis 1967: 237)
- b. *Doktor önce hastanın gözüné mözüné baktı, sonra sorunu anlamadığını söyledi.*
 ‘The doctor first checked the patient’s **eyes, etc.**, then said that s/he didn’t understand the problem.’
 (Göksel & Kerslake 2005: 99)

The pattern of replacing the first consonant of the base by /m/ (or occasionally /b/), which is widespread among the neighbouring Turkic languages and among several geographically (but not genetically) connected languages of the former Ottoman empire (cf. Stolz 2008; Stolz et al. 2011),⁹ can also be found in the language of speech communities in multiethnic, multilingual environments of larger German cities. In these specific linguistic settings, which are characterised by a high ratio of people with an immigration background, a new linguistic variety has developed in recent decades, which may be seen as the latest addition to the spectrum of non-standard varieties of German. For this way of speaking H. Wiese (2009, 2012) has coined the term “Kiezdeutsch” (lit. ‘hood German’, *Kiez* being a Berlines term for ‘neighbourhood’ with a highly positive connotation).¹⁰

⁹ This pattern is not restricted to this geographical area, however. It can also be found, for example, in Bengali where it occurs regularly and serves more or less the same functions as in many Turkic and other languages. As opposed to Turkic languages, in Bengali the first consonant of the base is not replaced by /m/ but usually by /t/, cf. *gan-ṭan* ‘songs and such’, *sa-ban-ṭaban* ‘soap, cleaning materials’ (Thompson 2012: 313; Mukherji 2014).

¹⁰ The examples in (16) and (17) are drawn from the KiezDeutsch-Korpus (KiDKo), which has been built up at the University of Potsdam. The corpus compiles data of self-recorded, spontaneous informal speech of youths aged 14–17 and their peers in a multiethnic neighbourhood in Berlin (amounting to 228,000 running words). – See Wiese et al. (2012) and Rehbein, Schalowski & Wiese (2014) for further information as well as the project websites <http://www.kiezdeutschkorpus.de>.

- (16) A: *bei XL kannst du auch so für Punker* [Kiezdeutsch]
 at XL can you also PTCL for punks
hast gesehen was da alles (...) haben
 have.you seen what there all [not audible] have
- B: *ja, wie der, alle so, pink, grün, lila*
 yes how this all PTCL pink green purple
- A: *schwarz marz, alles so*
 black RED all PTCL
- ‘A: At XL’s [= a hairdresser’s] you can also for punks, did you see what they stock there?
 B: Yes, exactly like this one..., all [colours], pink, green, purple.
 A: **Black and stuff**, just everything.’
- (KiDKo; female speaker, Turkish/German bilingual; transcription normalised)

- (17) *und icke micke* [Kiezdeutsch]
 and I RED
icke war jestern im Lidl
 I was yesterday in.the Lidl
- ‘and “**icke**” and the like, I was at Lidl’s [= a supermarket chain] yesterday.’
 [icke = ‘I’ in traditional Berlin dialect; speaker apes this dialect here]
- (KiDKo; female speaker, Turkish/German bilingual; transcription normalised)

- (18) *er kommt schon wieder mit Fahrrad Mahrrad* [Kiezdeutsch]
 he comes yet again with bike RED
 ‘He comes by **bike** yet again.’
- (Wiese & Polat, to appear; Turkish/German bilingual speaker)

As these examples suggest, *m*-reduplication is fully productive in Kiezdeutsch. According to studies conducted by Wiese (2014) and Wiese & Polat (to appear), *m*-doublets most often convey a deprecatory, dismissive meaning in Kiezdeutsch (as is the case in (17) and (18)). They may be used for signalling indifference towards, or contempt for, the referent of the reduplicated expression.¹¹

One might suspect influences of the linguistic background of some of the speakers of Kiezdeutsch here, who are to a large extent German-Turkish bilinguals. Wiese & Polat (to appear) point to this fact as a possible source of *m*-doublets in Kiezdeutsch. Further, they argue that lexicalised German words of the *Kuddelmuddel*-type, where the onset of the first syllable of the base is replaced by /m/ in the reduplicant (cf. (3) above), serve as support for the pejorative interpretation that is usually ascribed to the new *m*-doublets in German.

These few hints at specific patterns of rhyme and ablaut reduplication may suffice to show that processes of partial reduplication are actually productive within certain domains of the German language. These observations are to be complemented by two other reduplication phenomena, which, in contrast, involve total reduplication only: ‘REAL-X Reduplication’ and ‘Durative Reduplication’. These hitherto largely overlooked phenomena will be discussed in detail in the next two sections respectively.

¹¹ For a more general discussion of the affective content of reduplication see Rossi (2011), who investigates the pragmatic effects of lexical reduplication.

3. German REAL-X Reduplication

3.1 The function of REAL-X Reduplication

This kind of reduplication applies to nouns, adjectives, adverbs and rarely also to verbs. In REAL-X Reduplication (*RXR*) a word is exactly copied, which results in a compound-like structure. The semantics of *RXR* can be captured as narrowing down the meaning of a word to its core meaning. Hence, when using an *RXR*, the speaker's intention is to refer to the relevant prototype. This interpretation could be paraphrased as 'real/really X' or 'true/truly X' (following Stolz et al. 2011: 199 and Hohenhaus 2004).

In (19) *Buchbuch* 'book-book' refers to a real book consisting of paper pages, as opposed to an e-book, and in (20) *Literaturliteratur* 'literature-literature' is to be understood as 'belles lettres', which is distinguished from science fiction, thrillers and the like.¹²

- (19) *Dann bin ich doch mal hier die langweilige Wurst, die ein Buch nach dem anderen liest. :-)* Es ist höchstens drin gleichzeitig eins auf meinem Reader und ein **Buchbuch** zu lesen und selbst das mach ich nicht so gerne.

'So, I'm the bore who reads one book after the other. At the utmost, I read one on my reading pad and a **book-book** at the same time. And even that I don't like very much.'

(Forum entry, 24.07.2013, <http://wasliestdu.de/frage/lesegewohnheiten/buecher-parallel-lesen>)

- (20) *Also ich lese querbeet. Sowohl nach wie vor phantastische Literatur – manchmal Science-Fiction, manchmal tatsächliche Fantasyromane, – als auch Thriller oder mal das, was man als **Literaturliteratur** bezeichnet, sowas wie Thomas Mann oder Hermann Hesse.*

'Well, I read at random. Fantasy novels – sometimes science fiction, sometimes real fantasy – as well as thrillers or something that is called **literature-literature**, something like Thomas Mann or Hermann Hesse.'

(Interview with Ralf Isau, 2011, <http://www.die-blaue-seite.de/2012/04/07/interview-mit-ralf-isau/>)

In the same vein, in (21), the time span which *jetztjetzt* 'now-now' refers to is limited to the moment of writing in contrast to a more broadly interpreted present, whereas in (22) the meaning of *schwarz* 'black' is strengthened by *RXR* and thereby restricted to 'black in the proper sense'.¹³

¹² As for the spelling of *RXR*s, no convention has formed yet. Alongside of spellings as one word, we also find numerous variants where an internal capital letter, a hyphen or a blank space was inserted. In view of the canonical spelling of compounds without any indication of internal word boundaries, it is interesting to note that writers do not treat *RXR*s like 'normal' compounds, but try to make their special internal structure transparent (cf. Scherer 2012 for a general discussion of German norms and usages of compound spelling). In the original examples cited in the present paper, I leave the spellings as they are in the original.

¹³ An anonymous reviewer pointed to the fact that these examples allow an intensifying interpretation, too. Indeed, 'real black' (in (22)) can not only mean 'black in the proper sense', but can also entail the intensification meaning 'darker than normal black'; this interpretation is in fact suggested by the afterthought concerning three- instead of two-digit profits. Similarly, *jetzt-jetzt* can be interpreted not only as 'now in the proper sense of the word', but also as 'even earlier than now'. – For an analogous interpretation of the adjectival type of *RXR* in English see Horn (to appear, a) and below.

- (21) *was ich jetzt mach? **jetztjetzt** dir schreiben, und sonst studieren*
 what I now do now.now you write and otherwise study
in den letzten zügen. und selber so?
 in the last stages and yourself so
 ‘What I am doing now? **Now-now** [= right now] I’m writing to you, and otherwise I’m in the last stages of my course of study. And yourself?’
 (Guest book entry, 06.09.2006; <http://www.neon.de/user/surflehrer>)
- (22) *Die Verlagerung in den Osten hat einen einzigen Zweck: Die Aktionäre wollen mehr verdienen. Schwarze Zahlen genügen nicht mehr.*
 ‘The move to the East has a single purpose: The share holders want to earn more. Black figures are not enough anymore.’
*Die Zahlen müssen **schwarzschwarz** sein. Nicht zwei-, sondern dreistellige Gewinne.*
 the figures must black-black be not two but three.digit profits
 ‘The figures must be **black-black** [= really black]. Not two-digit, but three-digit profits.’
 (“Der Standard”, Austrian newspaper, 12.03.2004)

The reduplicated form of *arbeiten* ‘to work’ in (23) stands for being actively involved in working processes as opposed to being only formally employed, e.g. during a parental leave.

- (23) *Wie ist das eigentlich wenn ich 2 Jahre arbeite und dann ein Jahr in Elternzeit gehe, muss ich dann noch ein Jahr **arbeitenarbeiten** um verbeamtet auf Lebenszeit zu sein?*
 ‘What happens if I work for two years and take parental leave for one year, do I have to **work-work** [= be in the job] for another year before getting the status of civil servant?’
 (Forum entry, 21.06.2009, <http://referendar.de/forum/viewtopic.php?f=6&t=12851&start=84>)

This type of reduplication has been described first for several Romance languages (see, e.g., the early reference to this phenomenon in Medici 1959). In spoken varieties of Italian, French and Spanish, among others, we find the same function of referring to prototypes of concepts, which may lead to intensification, in particular with adjectives:

- (24) a. *caffè caffè* [Italian]
 coffee coffee
 ‘caffè vero’ [= real/good coffee, no surrogate]
 (Medici 1959: 84)
- b. *lana lana*
 wool wool
 ‘real wool’
 (Wierzbicka 1991: 265)
- (25) a. *Il est pas **malin malin**.* [French]
 he is not clever clever
 ‘He isn’t **clever-clever** [= really clever].’
 (Everyday conversation, overheard in 2014)¹⁴

¹⁴ I thank Jean-Marc Bobillon for providing this example.

- b. A: *Cet été je pars en vacances en Grèce.* [French]
 this summer I go in holidays on Greece
 B: *Oh, quelle chance! En Grèce Grèce ou dans les îles?*
 oh what luck on Greece Greece or in the islands
 ‘A: This summer I’m going to spend my holidays in Greece.
 B: Oh, how lucky you are! Are you going to **Greece-Greece** [= continental Greece] or to the islands?’
 (Rossi 2015)
- c. *Es un perro perro.* [Spanish]
 be.3SG a dog dog
 ‘It’s a **dog-dog** [= real dog].’
 (Bollée 1978: 328, fn. 40; taken from Stolz et al. 2011: 199)

RXR is also attested in English, it has been investigated in some detail by Horn (1993, 2006, to appear a, b), Hohenhaus (1996, 2004) and Ghomeshi et al. (2004). Horn refers to cases of RXR as “clones”, Hohenhaus calls them “Identical Constituent Compounds (ICC)”, and Ghomeshi et al. label them as “Contrastive Focus Reduplication (CFR)”. Examples are given in (26) and (27):¹⁵

- (26) a. Lorelai: *I got stuff on my mind.*
 Rory: *Max stuff?*
 Lorelei: *No, **stuff stuff**.*
- b. *Honey, I’m so sorry. Am I **late late** or just late?*
 (Hohenhaus 2004: 328)
- c. *We have muffins and we have **DESSERT desserts**.*
 (waitress, Atticus Bookstore Cafe, New Haven; Horn 1993: 49)
- (27) a. *I’ll make the tuna salad, and you make the **SALAD-salad**.*
- b. *She wasn’t a fancy cow, a Hereford or Black Angus or something, just a **COW-cow**.*
- c. A [to B, who is about to give a recital]: *Are you nervous?*
 B: *Yeah, but, you know, not **NERVOUS-nervous**.*
- d. *My car isn’t **MINE-mine**; it’s my parents’.*
 (Ghomeshi et al. 2004: 308, 311, 312)

As Horn (1993: 48) points out for English, “the reduplicated modifier singles out a member or subset of the extension of the noun that represents a true, real, default, or prototype instance.” Extending this description, Hohenhaus (2004: 314) postulates that the meaning ‘a proper X’ conveyed by ICCs “covers not only the cases of ‘prototypicality’ in the sense of ‘a proper X’ / ‘no less than X’ but also ‘no more than just X’” (Hohenhaus 2004: 314). This is captured again in the more detailed description of the functions of “clones” in English by Horn (to appear, a), who lists two ‘no less than X’ categories and one ‘no more than just X’ category: “(i) marking *echt*-icity (prototype category membership),

¹⁵ Remarkably, there are already signs of lexicalisation processes noticeable in English. Horn (2015) mentions the examples *LIKE HIM like him*, *JOB job* and *DATE date* as obvious candidates.

especially for nouns, (ii) assigning a value-added or intensifying use, especially for adjectives, and (iii) picking out a literal as opposed to figurative/metaphorical use.” Contrastiveness seems to be another typical ingredient (but see Horn, to appear, a, for another view), which led Ghomeshi et al. to the term “contrastive focus reduplication” in the first place. The contrast relation thus established can concern either orientation of the dimensions just mentioned: ‘less than X’, but also ‘more than just X’. Often this contrast is made explicit verbally.¹⁶

All this also holds true for RXR in German. To my knowledge, Hohenhaus (1996, 2004) is the first who reports on its being existent in German. He states that “ICCs are at least as common in German as they are in English” (Hohenhaus 2004: 319),¹⁷ whereas Ghomeshi et al. (2004: 312) deny its availability in German altogether.

In (28) a contrast relation is established between the core meaning and a more loose interpretation of *früh* ‘early’ and *spät* ‘late’. In (29), however, RXR is used to the effect that the interpretation of *Blumen* ‘flowers’ is restricted to the core meaning (‘just a bunch of ordinary flowers’) in contrast to an interpretation as an expensive, fancy bouquet of flowers.

(28) ‘no less than X’

Er hat Tagesdienste, das heißt er muss den ganzen Tag arbeiten,
 he has day.shifts this means he must the whole day work
also von früh bis spät, also früh-früh bis spät-spät
 that.is from early to late that.is early-early to late-late

‘He has day shifts, which means that he must work all day, that is from early till late, that is from **early-early** [= really early] till **late-late** [= really late].’

(Everyday conversation, overheard in 2012)

(29) ‘no more than X’

Context: Mother and daughter are at the florist’s. The daughter chooses a costly bouquet for buying. Her mother remarks:

Nee, die sind mir eigentlich zu teuer. Ich will einfach nur so Blumen-Blumen.
 no they are me PTCL too expensive I want simply only PTCL flowers-flowers

‘No, they are too expensive for my liking. I just want **flowers-flowers** [= plain flowers].’

(Everyday conversation, overheard in 2013)

It depends entirely on the context which dimension is chosen as target of the contrast relation. Thus, in isolation, the interpretation as ‘a proper X’ might be available in each case (if not exclusively so, see Finkbeiner 2014), but the target of the contrast must be inferred from additional information in the surrounding context. A case in point is the quite well-established reduplicative noun *Freundfreund*

¹⁶ This points to a discourse property which Hohenhaus (2004: 302) identifies as a “common situational factor” typical of English ICCs. When ICCs are used, the communicative situation usually entails “a potential misunderstanding or ambiguity if the doubled constituent were to be used on its own. Thus it is obviously deemed important to clarify this (potential) misunderstanding by means of an ICC” (ibid.).

¹⁷ The pattern must have existed in German long before Hohenhaus’s indication, cf. ex. (40) below, which dates from 1974.

‘friend-friend’ (cf. (30)–(33)). It receives rather diverse interpretations which, at times, even express the opposite of each other. Note, that at the same time all these readings are reducible to the reading ‘a real/proper friend’:

(30) *Freundfreund* ‘pal’

nächstes thema. ich brauche einen freund. also, freundefreunde habe ich
 next topic I need a friend well friends-friends have I
allemaal genug, aber ich brauche einen festen freund.
 certainly enough but I need a constant friend
 ‘Next topic. I need a friend. Well, **friend-friends** [= pals] I’ve got enough, I need a boy-friend.’

(Blog entry, 19.07.2009, <http://highway.myblog.de/highway/33>)

(31) *Freundfreund* ‘partner’

User 1: *Freund? seit wann*
 friend since when
 User 2: *Nicht FreundFreund sondern Kumpel freund!*
 not friend friend but pal friend

‘User 1: Boyfriend? Since when?
 User 2: It’s not a **friend-friend** [= boyfriend], just a buddy.’

(Postings on Facebook, 30.05.2012,
https://www.facebook.com/permalink.php?id=224149467636431&story_fbid=395087887209254)

(32) *Freundfreund* ‘friend in private life (as opposed to work-life)’

Nachdem sich einige Kollegenfreunde und Freundefreunde ;) zu Wort meldeten
 after REFL some colleague.friends and friends.friends to word reported
und Verbesserungsvorschläge zur ersten Version des Klappentexts äußerten [...]
 and improvement.suggestions to.the first version of.the blurb uttered
 ‘After several colleague-friends and **friend-friends** made suggestions for improvement concerning the first version of the blurb [...].’

(Blog entry, 09.02.2014, <http://cathrinkuehl.wordpress.com/category/manuskripte-bucher-und-geschichten/>)

3.2 The internal structure of RXX

At first glance, these examples look just like N+N compounds. Actually, compounds consisting of two identical words are indeed existent in German (see (33) for examples). Such ‘self-compounds’ comply entirely with the rules of German word formation in that the first constituent modifies the second; hence, we are dealing with a genuine modifier-head structure here. They are not as rare or extraordinary as is sometimes suggested in the literature on word formation.¹⁸ The semantic relations between identical constituents can be manifold, see (33)–(35) for illustration (X represents the head, Y the

¹⁸ See Günther (1981) who provides experimental evidence for this fact.

modifier).¹⁹ All self-compounds listed below are attested in the above-mentioned internet corpora, each of them more than once:

- (33) X holds a hierarchical relationship with Y²⁰
- a. *Kind-es-kind*²¹ ‘grandchild’
child-LE-child
 - b. *Freund-es-freund* ‘friend of a friend’
friend-LE-friend
 - c. *Helfer-s-helfer* ‘accessory’
helper-LE-helper
 - d. *Chef-Chef* ‘boss of the boss’
boss-boss
 - e. *Kollege-n-kollege-n* ‘colleagues of colleagues’
colleague-PL/LE(?)-colleague-PL
 - f. *Azubi-Azubi* ‘apprentice of an apprentice’
apprentice-apprentice
- (34) Y is the intellectual content of X
- a. *Büch-er-büch-er* ‘books about books and literature’
book-PL/LE(?)-book-PL
 - b. *Umfrage-umfrage* ‘survey concerned with surveys’
survey-survey
 - c. *Wissenschaft-s-wissenschaft* ‘theory/history of science (science concerned with science)’
science-LE-science
- (35) X consists of Y
- a. *Glas-glas* ‘(drinking) glass made of glass (not of, e.g., plastic)’
glass-glass
 - b. *Holz-holz* ‘lignified part of a branch’
wood-wood

When compared with RXR, the morphological structure looks exactly the same:

- (36) Y-like X (real X)
- a. *Büch-er-büch-er* ‘real books, i.e. stories, novels, poetry and the like’
book-PL/LE(?)-book-PL
 - b. *Literatur-literatur* ‘real literature, i.e. belles lettres’
literature-literature

¹⁹ For an in-depth discussion on the semantics of identical constituent compounds the reader is referred to the detailed study by Finkbeiner (2014) (see also fn. 23 below).

²⁰ These nouns are sometimes called ‘recursive’. They express a recursively hierarchical relation between the referents of the two constituents. They are not recursive in the strict structural sense, for the rule of compounding is not applicable to the self-compound itself, cf. **Kindeskindskind*, **Freundesfreundesfreund*, **Helfershelfershelfer*, **!/?Chefchef-Chef*. Again, this kind of semantic relation in compounding is not as limited as is generally assumed. No doubt it is restricted to nouns which imply a hierarchical relation, but these include more than the handful of lexicalised examples listed in the literature.

²¹ The gloss LE stands for a (semantically empty) linking element.

Thus, telling RXRs and self-compounds apart is not at all a trivial matter. Examples (34a) and (36a) are superficially identical.²² Whether the CONTENT-OF-X- or the REAL-X-reading is employed here, depends solely on the context.²³ Hence, one might wonder whether it is just that a new semantic relation has been added to the repertoire of possible ways of interpreting otherwise ‘normal’ compounds (Hohenhaus 2004, Kentner 2013, and Finkbeiner 2014 take this view). It is obvious that in (36a,b) the structural slot of Y could also be filled by other elements, for example by those in (37) and (38):

- | | | |
|------|---------------------------------------------------|---------------------|
| (37) | a. <i>Notiz-bücher</i>
note-books | ‘note-book’ |
| | b. <i>Schul-bücher</i>
school-books | ‘school-books’ |
| (38) | a. <i>Reise-literatur</i>
travel-literature | ‘travel literature’ |
| | b. <i>Trivial-literatur</i>
trivial-literature | ‘light fiction’ |

This holds equally for adjectives, for instance for *schwarz* ‘black’:

- | | | |
|------|------------------------------------------|----------------|
| (39) | a. <i>pech-schwarz</i>
pitch-black | ‘pitch-black’ |
| | b. <i>raben-schwarz</i>
raven-black | ‘raven-black’ |
| | c. <i>tief-schwarz</i>
deep-black | ‘ebony’ |
| | d. <i>schwarz-schwarz</i>
black-black | ‘really black’ |

²² In (i) and (ii) the complete examples are provided; (i) represents a determinative compound, (ii) involves the RXR case:

(i) *Auf dieser Seite werden Bücher aufgeführt, in denen Bücher, Bibliotheken, Buchmenschen, Buchherstellung, Schreiben und Lesen das zentrale Thema sind oder eine große Rolle spielen. **Bücherbücher** können Romane ebenso sein wie Sachbücher rund um das Buch.*

‘On this webpage books are listed that deal with books, libraries, bibliophiles, bookmaking, writing and reading. **Book-books** can be novels as well as non-fiction concerned with the topic ‘book’.’

(Webpage about books, <http://www.buecher-wiki.de/index.php/BuecherWiki/Buecherbuecher>)

(ii) *So betrachtet müsste der Unterricht sehr viel individueller und offener gestaltet werden: bringt eure Lieblingsbücher mit und diskutiert sie, und wenn ihr **Bücherbücher** sterbenslangweilig findet, hey, es gibt auch zu zahlreichen Filmen und Spielen bereits komplette Bücherserien und Graphic Novels.*

‘Seen from this perspective, lessons should be organised much more individually and openly: bring your favourite books along and discuss them; if you find that **books-books** are deadly boring, hey, there are also whole book series on films and games as well as graphic novels.’

(Forum entry, 12.08.2010, <http://12185.forumromanum.com/>)

²³ See Finkbeiner (2014) for an extensive discussion of this point and for experimental evidence. In her experiment subjects were asked to give an interpretation of novel identical constituent compounds, which were presented without any contextual information. The results revealed a total of 13 different semantic relations being assigned, among which prototypical and REAL-X readings turned out to be default interpretations.

Stolz et al. (2011) also refer to the modifier-head structure of these constructions; they point out:

The construction consists of two slots one of which is occupied by an expression which represents the concept X. The representative of X may belong to any kind of word class (adjectives, nouns, verbs or other). In addition to X, there is another slot whose filler has focus accent and serves as a modifier of the X-expression. In contrast to the T[otal]R[eduplication] prototype, [it] does not specifically determine that the slot-filler is identical to X. If filler and X happen to be identical phonologically, morphologically and semantically, then we are dealing with a proper REAL-X-TR.

(Stolz et al. 2011: 203)

Indeed, we find numerous examples in our data where the first constituent of a compound is contrasted with the first component of a RXR. Two of them are given in (40) and (41):

- (40) *Der Fußballkünstler Netzer unterscheidet zwischen Fußballkunst und **Kunstkunst**.*
the football.artist N. distinguishes between football.art and art.art
'Football artist Netzer distinguishes football-art from **art-art**.'
Aus dem Bereich der letzteren besitzt er ein Spiegelkästchen von Adolf Luther.
'With regard to the latter, he possesses a mirrored casket by Adolf Luther.'
(“Der Spiegel”, German magazine, Issue 8/1974, 18.02.1974)

- (41) *habe nit gewusst, dass Leinenpflicht an der Nordsee ist, ok in die Stadt gehen wir sowieso selten*
'I didn't know that dog leads are required at the North Sea. Well, we don't go to town very often, anyway.'
*wir wollten Wattwandern, Strandwandern, **Wandernwandern***
we wanted tideland.hiking beach.hiking hiking.hiking
'We wanted to walk across the mudflats, walk on the beach, and **hike-hike**.'
(Forum entry, 02.03.2012, <http://www.das-boxerforum.de/thread.php?postid=131049#post131049>)

These findings concerning the internal structure of RXR receive further support from the observation that canonical compounds and instances of RXR can be coordinated and that these coordinations license ellipses, as illustrated in (42):

- (42) *Zum einen, so wird argumentiert, wird in der **Kinder- und Literaturliteratur** Gewalt vor allem reflektiert und sogar geächtet. Zum anderen [...]*
'On the one hand, as is said, violence is reflected upon and even proscribed in children's literature and in **literature-literature** [= aesthetic literature]. On the other hand [...]'
(Book review, 12.11.2012, <http://www.jugendhilfeportal.de/>)

Interestingly, it is on the other hand not possible to elide the second constituent of the RXR, see (43a) in contrast to (43b):²⁴

- (43) a. *Kinder- und Literatur-literatur*
children and literature-literature
b. **Literatur- und Kinder-literatur*
literature and children-literature

²⁴ I thank Thomas Stolz for pointing this out to me.

Another clue that indicates the modifier-head structure is prosody. In German, RXRs get exactly the same stress pattern as canonical determinative compounds: it is always the first constituent which receives the word accent.

As it stands, there are quite a number of indicators that suggest an analysis of RXR as a case of proper compounding. At least, it is undeniable that a modifier-head structure is present. This would be an atypical feature of total reduplication in general, which normally shows no kind of hierarchical internal structuring (cf. also Stolz et al. 2011: 203f.).

In the remainder of this subsection I am going to discuss three pieces of evidence that, in contrast, support the view that RXR is not an ordinary type of compounding either.

The first argument is concerned with the (non-)occurrence of linking elements (LE). Canonical compounding in German is characterised by the regular occurrence of obligatory linking elements (German terms: *Kompositionsfugen* or *Fugenelemente*). The number of compounds that take linking elements amounts to about 35-40 % (Nübling & Szczepaniak 2009: 196). For example, the noun *Leben* ‘life’, when being the first part of a compound takes the linking element *-s-*, as in *Leben-s-geschichte* ‘life story’. The compound *Lebensgeschichte* cannot exist without a linking element or with any other than *-s-*. In RXR, however, we observe the peculiar behaviour that linking elements never occur, even if the reduplicated noun must have one otherwise, i.e. when acting as first constituent in a determinative compound. (44) shows ‘minimal pairs’ that illustrate this point: only in the case of RXR in (44c) no linking element is present.

- | | | | |
|------|------------------------------------------------|--------------------------|-----------------------|
| (44) | a. <i>Freund-es-kreis</i>
friend-LE-circle | (* <i>Freundkreis</i>) | ‘circle of friends’ |
| | b. <i>Freund-es-freund</i>
friend-LE-friend | (* <i>Freundfreund</i>) | ‘friend of a friend’ |
| | c. <i>Freund-Freund</i>
friend-friend | | ‘friend, not partner’ |

In this light, examples like *Blume-n-blumen* ‘flowers-flowers’, *Freund-e-freunde* ‘friends-friends’, *Büch-er-bücher* ‘books-books’ (see ex. (29), (30) and (36a) above), which show phonetic material between the reduplicated elements, appear as problematic cases at first sight. However, what might be taken for linking elements here must actually be seen as inflection markers. This leads us directly to the second non-compound-like property of RXR: the first constituent can be an inflected word form in RXRs (an option not available in canonical, determinative compounds). I am going to argue that the first constituent of the RXR *Bücherbücher* carries a plural marker (and that of *Freundefreunde*, *Blumenblumen* and others do, too). Evidence for this claim comes from the observation that between reduplicant and base there is only phonetic material detectable that mirrors exactly the plural marker of

the second constituent. The potentially imaginable forms in (45), which do not match this description, cannot get an RXR reading.²⁵

- (45) a. Reduplicant contains phonetic material without corresponding equivalent in the base
Blume-n-blume
Büch-er-buch
Freund-e-freund
- b. Reduplicant contains phonetic material which differs phonetically from the affix at the base
Freund-es-freund-e

What is possible, however, is that only the second constituent is marked for number:

- (46) *Jede Woche stellen sich die beiden Filmfreund-e (und auch **Freundfreund-e**)*
 every week introduce REFL the both film.friend-PL and also friend.friend-PL

Benedikt und Marius einen Film vor den der andere noch nicht kennt.
 B. and M. a film before which the other yet not knows

‘Every week the two filmfans (and **friends-friends** [= friends of each other]) Benedikt and Marius present each other a film which the other does not know yet.’

(Podcast, n.d., <http://www.podfilter.de/podcasts/1208-sieh-dir-das-an-podcast/sources/1245>)

- (47) *Es wäre daher außerordentlich irreführend anzunehmen, daß es nun, nach der Epoche ausschließlich schögeistiger **Literaturliteraturen**, darauf ankäme, eine Epoche der Technoliteraturen zu etablieren*

‘It would be extraordinarily misleading to assume that now, after a period of exclusively **literature-literatures** [= aesthetic literatures], it would be important to establish a period of techno-literatures.’

(Akademie-Journal 1/2001, p. 30; ed. by Union der deutschen Akademien der Wissenschaften)

- (48) *Ich partitioniere gar nicht, weil ich strukturiert arbeite *prahl* [...] Andere partitionieren einen Teil für Aufnahmen, einen für **FilmFilme**, however.*

‘I do not at all partition, because I work in a structured way *boast* [...] Others partition a part for recordings, one for **film-films** [= cinema films], however.’

(Forum entry, 12.07.2012, <http://www.xoro.tv/index.php?page=Thread&threadID=8563>)

One may tentatively conclude from this that all the material embodied in the reduplicant must exactly mirror the material in the same slot of the base – except that the reduplicant may contain less material than the base. So, with regard to number marking there are two options: (i) the plural suffix is added to the already reduplicated structure, like in (49a), or (ii) the single noun gets the plural marker first and is then reduplicated as a whole, like in (49b).²⁶ This is why in the domain of RXR we find *Freundfreund*, *Freundefreunde* and *Freundfreunde*, but not *Freundefreund* or *Freundesfreund(e)*.

²⁵ This corresponds to the results of a semantic judgement task conducted by Günther (1981). In this study, three quarters of the participants rated the given interpretation of *Bücherbuch* ‘B[uch] über bestimmte Bücher’ (‘book about particular books’) as ‘üblich’ (‘usual’) or ‘möglich’ (‘possible’), cf. Günther (1981: 270).

²⁶ As ex. (26c) from Horn (1993) illustrates, we encounter the same situation in English (see also Ghomeshi et al. 2004: 322).

- (49) Plural marking in RXR
 a. *Freund-freund-e*
 friend-friend-PL
 b. *Freund-e-freund-e*
 friend-PL-friend-PL

The example *Bücherbücher* therefore is structurally ambiguous. As discussed above, it can receive two interpretations. In the first case, it is a determinative compound meaning ‘books about books’, then the underlying structure is the one in (50a). The *-er-* element, which happens to be homonymous with the plural morpheme, serves as a linking element, here.²⁷ The corresponding singular form is *Bücherbuch*. In the second case, *Bücherbücher* is a reduplicative noun which refers to ‘real books, such as novels, poetry and the like’. The structure is the one given in (50b) then, with *-er-* representing the plural suffix. The singular of this noun is *Buchbuch*.²⁸

- (50) Plural marking in determinative compounding vs. RXR
- | | | | |
|----|--------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------|
| a. | <i>Büch-er-buch</i>
book-LE-book
‘book(s) about books’ | <i>Büch-er-büch-er</i>
book-LE-book-PL | [determinative compound] |
| b. | <i>Buch-buch</i>
book-book
‘real book(s), i.e. stories, novels, poetry and the like’ | <i>Büch-er-büch-er</i>
book-PL-book-PL | [RXR] |

Thirdly, and finally, it should be noted that even those parts of speech that are normally not subject to compounding can undergo RXR. This applies particularly to verbs and adverbs. There are only a few established V+V compounds and Adv+Adv compounds in Contemporary German and their status as compounds is not even undisputed, see (51) for a few examples:

- (51)
- | | | | | |
|----|---------------------------------------------------------------------------|---------------------------------------------------------|-----------------------------------------|-----------|
| a. | <i>kennen-lernen</i>
know-learn
‘to become acquainted with sb/sth.’ | <i>stehen-bleiben</i>
stand-stay
‘to stand still’ | [V+V] | |
| b. | <i>so-bald</i>
so-soon
‘once, as soon as’ | <i>hier-her</i>
here-fro
‘here, hither’ | <i>nun-mehr</i>
now-more
‘by now’ | [Adv+Adv] |

As Fleischer & Barz (2012: 374) point out (with reference to Fuhrhop 2007), complex verbs whose first constituent is an infinitive, such as *kennenlernen* and *stehenbleiben*, represent in fact a syntactic structure with the second verb governing the first. Other compounds, which are formed of two verb stems, remain utterly scarce and mostly represent nonce words or literary ad hoc formations. Three of

²⁷ For details on the historical development of linking elements out of genitive singular and plural morphemes, which are occasionally homophonous with the nominative plural suffix, see, among others, Kürschner (2010), Nübling & Szczepaniak (2013).

²⁸ Another option for plural marking of *Buchbuch* is – just as is the case with *Freund-freund-e* – to attach the plural suffix to the reduplicative construction as a whole, which yields *Buch-büch-er*.

the rare examples, which are quoted all over, are *zieh-schleifen* ‘to drag-grind, to hone’, *grins-keuchen* ‘to grin-pant’ and *trenn-schweißen* ‘to separate-weld’. What is more, it is hard to decide whether we are dealing with determinative or copulative structures here. Some of these verbs could also plausibly be analysed as cases of backformation. Seen from this perspective, V+V compounds do not exist at all.²⁹

As for Adv+Adv compounds, their structure can hardly be considered a determinative one. In line with Fleischer & Barz’s argumentation (2012: 363), it is more appropriate not to assume any hierarchical structure in complex adverbs, but to analyse them as copular structures. In any event, compounding as an operation of word formation is only weakly productive if not entirely absent as far as adverbs and verbs are concerned (cf. Fleischer & Barz 2012: 361-366, 374).

It is therefore somewhat unexpected that adverbs do not merely play a minor part within the domain of RXR, as one could have presumed, but prove rather suitable for the pattern. As is the case with nouns and adjectives, RXR reduplicated adverbs are restricted to their core meaning, which can be paraphrased as ‘really X; X in the proper sense of the word’, ex. (21) is repeated here as (52) for convenience:

- (52) *was ich jetzt mach? jetztjetzt dir schreiben, und sonst studieren*
 what I now do now.now you write and otherwise study
in den letzten zügen. und selber so?
 in the last stages and yourself so

‘What I am doing now? **Now-now** [= right now] I’m writing to you, and otherwise I’m in the last stages of my course of study. And yourself?’

(Guest book entry, 06.09.2006; <http://www.neon.de/user/surflehrer>)

- (53) *Und die Millisekunde nach dem Schuss reicht für den Geiselnnehmer auch, selbst noch den Abzug zu drücken.*

‘The millisecond after the gunshot is enough for the kidnapper to squeeze the trigger himself.’

Man stirbt ja nicht sofortsofort.

one dies PTCL not instantly.instantly

‘One does not die **instantly-instantly** [= that instantly].’

(Forum entry, <http://www.sofacoach.de/forum/showthread.php?t=106&page=59>, 28.07.2009)

- (54) Context: Two colleagues bump into each other in the cafeteria after a long time.

A: *wie lange bist=n du schon hier?*

how long are=PTCL you already here

‘How long have you been here?’

B: *hier?*

here

‘Here? [= in the cafeteria]’

²⁹ For a different view see Meibauer & Scherer (2007).

A: *nee, nicht hier-hier, sondern in Deutschland*
 no not here-here but in Germany
 ‘No, not **here-here** [= right here], in Germany!’
 (Conversation, cafeteria of the University of Potsdam, January 2009)

The first constituent does not fill a slot that can paradigmatically be filled otherwise. There are no other adverbs or other words thinkable which could replace – and thus be in contrast with – the first constituent of a reduplicated adverb:

- (55) a. *jetzt-jetzt* **heute-jetzt* **nachher-jetzt*
 now-now today-now later-now
 ‘right now’
- b. *sofort-sofort* **bald-sofort* **sekunden-sofort*
 instantly-instantly soon-instantly second-instantly
 ‘this instant’
- c. *hier-hier* **hinten-hier* **neben-hier*
 here-here behind-here beside-here
 ‘exactly here’

Normally, modifiers of adverbs occur in phrasal constructions, such as *genau jetzt* ‘right now’, *echt sofort* ‘really instantly’, *genau hier* ‘exactly here’, *ungefähr hier* ‘roughly here’, and similar combinations.

To conclude this subsection, it can be stated that the morphological status of RXR constructions is still not entirely clear. What is quite clear for the moment, though, is that RXR takes place at word level: reduplicated items are neither smaller nor greater than words. The decision whether RXR is a matter of compounding in the traditional sense or whether it represents a morphological process in its own right, namely a case of reduplication proper, cannot easily be made, for the borderline between canonical compounding and prototypical total reduplication is blurred by several inconsistencies.

At least for some word classes, the modifier-head structure of RXR is undeniable. In nouns and adjectives the copied constituent alternates with other, modifying and determinative, constituents just like in compounds. A permutation of this kind is not observable in reduplicative verbs and adverbs, however. These compound-phobic word classes do not allow initial constituents other than copies of themselves. This would be an utterly untypical behaviour of compounds, thus a reduplication analysis looks like the more appropriate option here.

Two other properties strongly support a reduplication analysis: adjacency and exactness of the reduplicant. The discussion on RXR of nouns revealed that linking elements are not permitted here. Even nouns which cannot occur as the first part of a compound without taking a linking element undergo RXR without any extra phonetic material showing up at the right edge of the reduplicant. According to the data analysed, it is possible to reduplicate nouns in their plural form, however. Thus, what might

seen as intervening material, like *-n-* in examples like *Blume-n-blumen* ‘flowers-flowers’, is in fact the plural suffix of a reduplicated plural form.

Finally, it is important to keep in mind that RXR must be carefully distinguished from different types of self-compounding, which count as compounding in the proper sense. I tried to sketch an account of self-compounding that shows it to be much more common and more multi-faceted than is usually assumed (for a detailed approach to the semantics of several sorts of self-compounds cf. Finkbeiner 2014).

Let us now turn to a further type of total reduplication: the reduplication of bare verb stems in order to express duration of the expressed event or activity.

4. Doubling of bare verb stems: Durative Reduplication

4.1 Structural properties of Durative Reduplication

This type of reduplication is as intriguing as it is still underexplored. In all sorts of computer-mediated communication, but also sometimes in spoken language, one encounters verbs which are used in their bare, uninflected form (i.e. as verb stems), for example *grins* ‘to grin’.³⁰ This is all the more remarkable as German verbs usually do not appear without an inflectional marker at all; even infinitives are obligatorily equipped with the infinitival suffix *-en* (e.g. *grins-en*).³¹ Uninflected verbs appear frequently in reduplicated form, like, for example, *grins-grins*, or **hechel-hechel** ‘pant-pant’ in (56):³²

(56) (speaker enters the chat room)

hechel-hechel* so, bin wieder da *schweiß-weg-wisch

pant-pant so am again there sweat-off-wipe

‘*pant-pant* so, I’m back again *wipe off the sweat*’

(Forum entry, n.d.,

<http://germanspouses2.myfastforum.org/index.php?component=content&topicid=3834&postdays=0&postorder=asc&start=75>)

Uninflected verbs both in their single and in their reduplicated form are not part of the surrounding syntactic structure. They represent syntactically independent units and constitute independent speech acts. The agent of the activity denoted by the uninflected verb is mostly the speaker him-/herself (see Teuber 1999; Schlobinski 2001). Further frequent examples are *schluchz* ‘to sob’, *knuddel* ‘to cuddle’, *freu* ‘to be glad’, *würg* ‘to retch’, *seufz* ‘to sigh’, *grübel* ‘to muse about sth.’, and *grummel* ‘to grumble’.

³⁰ Uninflected verbs are commonly used in internet chat rooms, internet forums, newsgroups, blogs, tweets, emails, and text messages (cf., e.g., Pankow 2003; Pauer 2013; Rehbein 2013). Given their text-type specificity, they can even be seen as means to define text-types.

³¹ The question whether verb stems count as bound or unbound morphemes in German is not conclusively answered yet. With the exception of singular imperative forms of regular verbs, which undergo apocope in colloquial German (for example *geh(e)!* ‘go!’, *denk(e)!* ‘think!’, *wart(e)!* ‘wait!’), verb stems always occur in combination with other morphemes.

³² In written form, uninflected verbs are typically enclosed in pairs of asterisks but sometimes other characters are used, such as *::verb-verb::* or *<verb-verb>*.

Within the Germanophone literature the term *Inflektiv* was coined by Teuber (1999) and is now in general use. To avoid any confusion with the English words *inflection* and *inflective*, which have just the opposite meaning of that intended by the German term, I will dispense with the German term, but keep speaking of ‘uninflected verbs’ instead.³³

Inevitably, the emergence of this type of reduplication is chronologically tied to the emergence of bare verb stems as autonomous words. It is widely assumed that uninflected verbs originated in early German comic strips. As these were translations from American English the translators had to transfer English sound words, such as *click* or *stomp*, into the German language. For this purpose they used uninflected verbs. Allegedly the first ones were *poch* ‘to tap’, *knarr* ‘to creak’, *bimmel* ‘to ring’, *knacks* ‘to crack’, *klopf* ‘to knock’, and *platsch* ‘to splash’, dating back to the early 1950s (see Schlobinski 2001 for details).

Teuber (1999) has already cast doubt on this story; he believes that uninflected verbs must be much older. As evidence for this claim he presents only one historical example, dating from the 18th century. This example comes from a remark in Adelung’s grammar of the German language (1782). In his chapter on interjections Adelung mentions the word *knall!* ‘to pop’, which he classifies as an interjection and which he considers as the basis for the derivation of the verb *knall-(en)* (Adelung 1782: 207). Onomatopoeic words or sound words of this kind belong to the word class which is called ‘ideophones’ in typology. Ideophones are defined by Dingemanse (in press) as “marked words that depict sensory imagery”. The sensory events that are described by ideophones are not restricted to sounds but include – depending on the language – reference to other senses too, such as vision, olfaction, taste etc., as well as inner feelings (in German one could think of *glitzer* ‘to twinkle’ or *prickel* ‘to sparkle on the tongue’). At least onomatopoeic words (called *Schallwörter* by 19th-century linguists), which can possibly also occur as verb stems, seem to have existed in the German language for a long time – a discovery that comes as no real surprise. I will return to this issue below.

As already mentioned, nowadays uninflected verbs are not restricted to the text type ‘comic strip’ anymore. The possibility of using virtually all verbs in their uninflected form today is in all likelihood indeed a relatively new development, however, and the regular usage of onomatopoeic uninflected verbs in comic strips and the resulting popularity of these words particularly among youths might have paved the way for the spread and the generalisation of this phenomenon (see Schlobinski 2001 for a similar line of argumentation).

Today, uninflected verbs represent syntactic structure of considerable complexity. Elaborated constructions with uninflected verbs can employ objects and adverbials:

³³ Thanks to an anonymous reviewer for suggesting, among others, this usage to me.

- (57) a. **buch-such**
 book-look.for
 b. **am camillentee die hände wärm**
 at.the camomile.tea the hands warm
 c. **mit-den-füßen-nach-der-fernbedienung-fisch**
 with-the-feet-for-the-remote.control-angle

(all examples are taken from Pankow 2003)

Formally, there are only few restrictions that limit the formation of an uninflected verb form. If a verb stem ends in a cluster consisting of obstruent + nasal, the use of the uninflected verb is ruled out. Verbs of this kind are, for example, *rechn-(en)* ‘to compute’, *ordn-(en)*, ‘to arrange’, *ebn-(en)* ‘to smooth’, *atm-(en)* ‘to breathe’. Restoring syllabicity by the addition of a schwa would lead to forms which look like finite verb forms (to be exact, they would look like 1SG.PRES: *rechn-e*, *ordn-e*, *atm-e*, etc.), a confusion which seems to be avoided (cf. also Teuber 1999: 21).

The data from Contemporary German reveal that in the course of time, the pattern has become more and more widespread. The examples in (58) below give some idea of the changes that must have taken place.

The semantic change is twofold:

- (i) expansion with respect to orientation:
 from event-oriented (purely descriptive) to speaker-oriented (acting, experiencing)
 (ii) expansion with respect to verbal semantics:
 from ideophones and onomatopoeic verbs to verbs which denote activities, processes, and physical and mental states

The pragmatic status of the utterance has changed from a relatively iconic sign that represents an immediate noise or sound (for example *knacks* ‘to crack’, *bim* ‘to ring’) to an entire speech act with assertive or expressive illocutionary force (for example **freu** ‘I’m glad.’, **buchsuch** ‘I’m looking for a/the book.’) (cf. Schlobinski 2001: 199).

This rough outline of the linguistic features of uninflected verbs is to provide the background against which the reduplicated forms can be assessed. My own corpus search revealed a wide range of reduplicated uninflected verbs. (58) gives an incomplete but fairly representative type-list (with each type attested more than once).³⁴

(58)	<i>bibber-bibber</i> shiver-shiver	<i>blubber-blubber</i> bubble-bubble	<i>brabbel-brabbel</i> babble-babble
	<i>freu-freu</i> delight-delight	<i>glitzer-glitzer</i> sparkle-sparkle	<i>grübel-grübel</i> ponder-ponder

³⁴ Reduplicated uninflected verbs vary in spelling in the texts. Usually they are written as one word, sometimes they are hyphenated or interrupted by a blank space. For the purpose of glossing and homogeneity I use the form with hyphen throughout.

<i>grummel-grummel</i>	<i>heuchel-heuchel</i>	<i>hex-hex</i>
grumble-grumble	pretend-pretend	conjure-conjure
<i>hoff-hoff</i>	<i>jammer-jammer</i>	<i>kicher-kicher</i>
hope-hope	complain-complain	chuckle-chuckle
<i>klapper-klapper</i>	<i>klopf-klopf</i>	<i>kopf-schüttel-kopf-schüttel</i>
clatter-clatter	knock-knock	head-shake-head-shake
<i>lach-lach</i>	<i>läster-läster</i>	<i>leucht-leucht</i>
laugh-laugh	tattle-tattle	glow-glow
<i>mecker-mecker</i>	<i>murmel-murmel</i>	<i>poch-poch</i>
nag-nag	mumble-mumble	knock-knock
<i>quiek-quiek</i>	<i>ratter-ratter</i>	<i>räusper-räusper</i>
squeak-squeak	rattle-rattle	hem-hem
<i>schnarch-schnarch</i>	<i>schnief-schnief</i>	<i>suelz-suelz</i>
snore-snore	snivel-snivel	jelly-jelly [to bend sb.'s ears]
<i>tätschel-tätschel</i>	<i>trippel-trippel</i>	<i>tröpfel-tröpfel</i>
pat-pat	patter-patter	trickle-trickle
<i>tuschel-tuschel</i>	<i>zischel-zischel</i>	<i>zitter-zitter</i>
whisper-whisper	hiss-hiss	tremble-tremble

It is important to note that all reduplicative uninflected verbs also show up in their simple form. So, contrary to lexicalised forms like *Pinkepinke* ‘dough, money’ or *plemplem* ‘doolally’ (see (5) above), the uninflected verbs in (58) are indeed clear cases of reduplication.³⁵

As is typical for total reduplication, it is almost impossible to decide which part of the reduplicated uninflected verb is the base and which the reduplicant. Both constituents carry an accent of equal strength. What is more, the semantics of reduplicated uninflected verbs is not at all determinative in nature. So, in this case, we do not run into the problem whether we are dealing with compounds or not, as we did with RXR. In parallel to RXR, however, reduplication of uninflected verbs operates at word level only. As illustrated in (57) above, uninflected verbs potentially head quite complex syntactic phrases. Notably, uninflected verbs which extend to a complex phrase never undergo reduplication (as far as we can judge from the data).³⁶

³⁵ From a formal point of view, reduplicated uninflected verbs usually consist only of the base and one reduplicant. It is not ruled out, however, to have more than one reduplicant. Examples like those in (i) and (ii) are much less frequent, though:

(i) *wir hatten dieses Jahr mehr Herbst- als Sommerwetter im Sommer **bibber-bibber-bibber***
 we had this year more autumn than summer.weather in.the summer shiver-shiver-shiver
 ‘This year, we had more autumn weather than summer weather during the summer. **shiver-shiver-shiver**
 (Forum entry, 08.07.2012, <http://www.wzforum.de/forum2/read.php?33,2466861,2466885>)

(ii) *2 personen haben sich gemeldet und werden sie am wochenende besichtigen! freue mich so!*
 ‘Two people have called and they are going to view her [= a she-dog] this weekend! I’m so glad!’
*ich hoffe es sind tolle leute. ***hoff-hoff-hoff****
 I hope it are great people hope-hope-hope
 ‘I hope they are nice people. ***hope-hope-hope***’
 (Forum entry, 11.10.2006, http://www.reitkalender.ch/forum/topic.asp?ARCHIVE=true&TOPIC_ID=5877&whichpage=3)

³⁶ What looks like an exception here, namely the reduplicated form *kopfschüttel-kopfschüttel* (see (58)), is only an apparent violation of the word-level constraint. *kopfschüttel* is not to be considered as a syntactic head-complement structure but as a verb (*schüttel* ‘to shake’) with its object (*Kopf* ‘head’) incorporated.

4.2 The function of Durative Reduplication

As for the function of reduplicated uninflected verbs, I argue that they indicate duration of the activity or the event denoted by the verb. The characteristic usage of a non-reduplicated uninflected verb is to refer to a (often non-verbal) action which takes place at the moment of speaking/writing. Discussing their usage in comics, Schlobinski (2001: 197) points out that the course of action is encoded directly by uninflected verbs. They do not comment on a panel or a scene but immediately represent events that are not perceivable visually.

Reduplication of uninflected verbs in general emphasises the durative, continuing character of a current activity or perception. The simplex *kicher* ‘to chuckle’, for example, denotes a short event of chuckling, rather a single chuckle, whereas *kicher-kicher* depicts continued chuckling. Likewise, the reduplicated form *kopfschüttel-kopfschüttel* ‘to shake one’s head disapprovingly’ refers to ongoing head-shaking. The simplex *kopfschüttel*, however, evokes an interpretation as an abrupt, decidedly short shake of the head.

In (59) and (60) the verb *fühl-fühl* ‘to feel’ depicts the action of touching the speaker’s own feet (or hip) in order to check the body temperature (or measuring point) while writing the forum entry. The reduplication adds to this a perception of extended duration of the denoted activity. This might be paraphrased as ‘feeling/fumbling for a while’ (in (60) this perception is further increased by adding the almost synonymous *tast-tast* ‘to fumble’).

- (59) ... drei vier dünne scheiben frischen ingwer ungeschält mit heißem wasser übergießen, paar minuten ziehen lassen löffel zucker umrühren köööstlich und ***fühl-fühl*** füsse sind warm
‘Pour hot water on three or four thin slices of unpeeled ginger, let it draw for several minutes, add a teaspoon of sugar, stir – delicious, and *feel-feel* feet are warm.’
(Forum entry, 08.01.2003, <http://vegan.de/foren/read.php?77,191537,191830>)

- (60) Ich bin 1,86 und würde nicht behaupten überproportional lange Beine zu haben und messe sowas 98cm. Wobei ich stehend den Zollstock auf den Boden gesetzt habe und auf Höhe des Hüftgelenks (denke ich, **fühl-fühl** .. **tast-tast**) abgelesen habe, also die Beinlänge.
‘I’m 1.86m tall and I don’t think that I have very long legs, I measure about 98cm. I put the folding ruler on the floor and read the ruler at the height of my hip joint (so I believe, feel-feel ... fumble-fumble), that is, my leg length.’
(Forum entry, 30.09.2007, <http://www.seekajakforum.de/forum/read.php?1,30525,30527>)

Note that the semantics of DR does not involve intensification: *fühl-fühl* does not mean ‘feeling/fumbling vehemently’ but just ‘fumbling for a little while’. Equally, in (61) the reduplicated verb *schnatter-schnatter* ‘to chatter’ indicates that the annoying chatter was of considerable length, it does not (necessarily) say that the chatter was extraordinarily intense:

- (61) *einige leute waren leider sehr laut, muß aber dazu sagen, es waren ne kleine gruppe von brits und drei russische mädels die unablässig geschwätzt haben.. *schnatter-schnatter* habs aber gut ignorieren könne und mich ganz den klängen gewidmet..*

‘Unfortunately, some people made rather a noise, I have to say, there was a small group of Brits and three Russian girls who cackled incessantly. ***chatter-chatter*** I could ignore it quite easily, however, and gave my full attention to the music.’

(Forum entry, 08.05.2009, <http://www.carookee.net/forum/starsailorfanpage/5/23877632;0;30115?p=3>)

As may be expected from the fact that the concept of duration is closely related to iteration, verbs which denote repetitive or recurrent events are well represented among the most frequent reduplicated uninflected verbs. The list in (58) includes a great number of such verbs. Many of them are equipped with an iterative suffix, such as *-el* or *-er*, which are used to derive iterative verbs from non-iterative verbs or from ideophones. See the examples in (62), which are taken from the list above, but are cited here in their infinitival form:

- | | | | | | |
|------|----|-------------------|---|-----------------|-------------------------------------------|
| (62) | a. | <i>blubb-er-n</i> | < | <i>blubb</i> | |
| | | bubble-ITER-INF | | IDPH | (depicting the sound of bubbling liquids) |
| | b. | <i>klapp-er-n</i> | < | <i>klapp-en</i> | |
| | | clatter-ITER-INF | | clap-INF | |
| | c. | <i>zisch-el-n</i> | < | <i>zisch-en</i> | |
| | | hiss-ITER-INF | | hiss-INF | |

It fits the picture perfectly that there are uninflected verbs which appear in their simple form, but not – or extremely rarely – in reduplication. These are verbs which belong to the “achievement” and “semelfactive” categories of lexical aspect (or *aktionsart*). Since they denote instantaneous, immediate events (in the case of achievements) or punctual events (in the case of semelfactives) their meaning is not compatible with durativity. Achievement verbs like *ankommen* ‘to arrive’ and semelfactive verbs like *umfallen* ‘to fall over’, *knallen* ‘to pop’, and *platzen* ‘to burst’ do occur as uninflected verbs, but they do so only as simplex forms. As such they denote a sudden single event (of falling or popping or bursting) which cannot extend over time. Conversely, simplex forms of verbs that are inherently iterative, such as *klapper* ‘to clatter’ or *ratter* ‘to rattle’, sound a bit awkward if used non-reduplicated.

The expression of durative/iterative is a common function of reduplication among the languages that employ reduplication as a regular grammatical process. Moravcsik (1978) gives several examples for this kind of verbal reduplication, among others those in (63):

- | | | | | |
|------|----|---------------------|-------------------------------|-----------|
| (63) | a. | <i>-pik</i> | <i>-pikpik</i> | [Tzeltal] |
| | | ‘touch it lightly’ | ‘touch it lightly repeatedly’ | |
| | b. | <i>zɔ</i> | <i>zɔzɔ</i> | [Ewe] |
| | | ‘walk’ | ‘be walking’ | |
| | c. | <i>tēem’</i> | <i>tētētēem’</i> | [Twi] |
| | | ‘to cry out (once)’ | ‘to cry out (repeatedly)’ | |
- (Moravcsik 1978: 319f.)

Strikingly, even the word forms used in DR follow a similar pattern in a number of languages. According to the extensive list of languages collated by Stolz et al. (2011), “indicating progressive and/or durative of an activity which accompanies the activity expressed by the main predicate [...] is a task which is very often associated with the T[otal] R[eduplication] of non-finite verb forms” (Stolz et al. 2011: 431). (64a) gives an example from Portuguese where the reduplicated infinitive is employed to express durativity, (64b) is from Sardinian, which uses reduplicated verb stems for the purpose, a strategy which comes closest to the German pattern:

(64) a. Portuguese

Mas pôs-se a pensar, a pensar, e acabou por perguntar ...

‘He began **to think for a while** and finally asked ...’ [port. *a pensar* ‘to think’]

(Stolz et al. 2011: 431)

b. Sardinian

Unu santu, però, passàda in Sa Prazzitta murrùngia murrùngia.

one saint but pass:3SG in Sa Prazzitta grumble grumble

‘One saint, however, went into Sa Prazzitta **grumbling all the way.**’

(Stolz et al. 2011: 430)

Viewed in this light, the existence of verb reduplication in German is nothing extraordinary. We can even sketch a plausible diachronic path leading to Durative Reduplication in Contemporary German.

4.3 The origin of Durative Reduplication

It is suggestive to assume that ideophones were the starting point for the emergence of reduplicated uninflected verbs. Ideophones provide often, although not always, the basis from which onomatopoeic verbs are derived. In many cases, these onomatopoeic verbs convey an iterative meaning, consistent with their reference to repetitive sounds or other quickly repeating events.

German ideophones and the stems of onomatopoeic verbs can either be formally identical (*knall*_{IDPH} vs. *knall*_V- ‘to pop’, *platsch*_{IDPH} vs. *platsch*_V- ‘to slosh’) or they differ in some formal respect and exist simultaneously (*blubb*_{IDPH} vs. *blubber*_V- ‘to bubble’) or there is no transparent relation between a verb and some ideophone at all (*knatter*_V- ‘to rattle’). The iterative meaning of many onomatopoeic verbs entails the perception of duration and continuation. This perception is enhanced by reduplication of the verb stem, and reduplication becomes the marker for a durative or continuative reading.

Subsequently, this pattern is generalised. It spreads to denotations that have nothing to do with sounds, noises, and other perceivable events and that do not imply recurrence of an event. Verbs like *hoffen* ‘to hope’, *freuen* ‘to be glad’, *heucheln* ‘to pretend’ and *leuchten* ‘to glow’ convey nothing but durativity when reduplicated.

This scenario can be illustrated with two examples displaying all diachronic stages up to this day:

(65)	Diachronic path from ideophone to Durative Reduplication		
ideophone	<i>zisch / zisch zisch</i> IDPH	<i>blubb / blubb blubb</i> IDPH	
verb	<i>zisch-en</i> hiss-INF	–	
iterative verb	<i>zisch-el-n</i> hiss-ITER-NF	<i>blubb-er-n</i> bubble-ITER-NF	
uninflected verb (ideophonic)	<i>zischel</i> hiss	<i>blubber</i> bubble	
DR of uninflected verb	<i>zischel-zischel</i> hiss-hiss	<i>blubber / blubber-blubber</i> bubble-bubble	

The assumption of a diachronic path like this is actually supported by the – admittedly scanty – historical data. It is not only Adelung who quotes ideophones (interjections in his terms) of the type *knall!* (see above). In the Grimms’ *Deutsches Wörterbuch* (1854-1961) we encounter quite a number of ideophones, which in most cases date back to the 19th century and occasionally as far as to the 16th century. Many of them resemble stems of verbs already existing at the time. Most interestingly, reduplication is very frequently referred to here.³⁷ (66) presents some of the ideophones that are listed in Grimms’ dictionary:

- (66) a. *zisch zisch* (mid-16th c.) > *zischen* (16th c.) > *zischeln* (mid-17th c.)
IDPH IDPH hiss-INF hiss-ITER-INF
‘(to) hiss’
- b. *klirr* > *klirr-en* (18th c.)
IDPH clink-INF
‘(to) clink’
- c. *plauz* > *plauz-en* (mid-19th c.)
IDPH shatter-INF
‘to go flying’
- d. *klapp klapp klapp* > *klapp-en* > *klapp-er-n* (19th c.)
IDPH IDPH IDPH clap-INF clap-ITER-INF
‘(to) clap’ ‘to clatter’
- e. *poch poch* > *poch-en* (beginning of the 19th c.)
IDPH IDPH hiss-INF
‘(to) knock’
- (Grimms’ *Deutsches Wörterbuch*, 1854-1961)

So we can conclude that uninflected verbs have existed in German for more than 150 years. The processes of language change involved semantic generalisation and syntactic extension. Furthermore, it does not seem too far-fetched to assume that frequency and popularity of the comic strips of the 1950s and 1960s gave an innovative boost and accelerated the change.

³⁷ As for the general relation of ideophones and reduplication cf. Dingemanse, this issue.

5. Summary

The aim of this paper was to show that reduplication in general and total reduplication in particular have their productive domains in German. After discussing productive ablaut and rhyme reduplication within the process of creating individual user names (*Heinzpeinz*, *Frinzfranz*) (cf. Kentner 2013) and pointing to the observation that total reduplication is productive here, too (*Tanjatanja*, *heinzheinz*), I turned to a specific recent development: the emergence of Turkish-like *m*-reduplication (*schwarzmarz*) in the German variety ‘Kiezdeutsch’ spoken by speakers in urban, multiethnic speech communities. These brief discussions revealed that it is justified to assume that specific subtypes of partial reduplication are productive in German. They were hidden behind the view that German – as a reduplication-averse language – does not possess any reduplication phenomena that go beyond the small group of fossilised examples of the *Klimbim*-sort.

In the main part of the article I studied two further, almost completely overlooked cases of total reduplication in more detail: REAL-X Reduplication (*Blumen-Blumen*) and Durative Reduplication (*grummel-grummel*). Although they are profoundly different in nature, they show some parallels. First, they both operate at word level, thus units of a size smaller or larger than a word cannot undergo RXR or DR. Second, both types adhere – strictly or preferably – to general constitutive features of total reduplication, namely (i) that reduplication takes place only once, that is, there is only one reduplicant, (ii) that the reduplicant must be an exact copy, and (iii) that reduplicant and base need to be adjacent.

In Section 3, I gave a detailed account of RXR-specific features. A central topic was the question how RXR-constructions are internally structured. Particularly nouns and adjectives are clearly headed. The determinative semantic relation between reduplicant and base (or: modifier and head) suggests that we are dealing with compounds here. The situation gets even more complicated if one takes seriously the numerous types of real self-compounds and the various semantic relations which potentially underlie such combinations of identical constituents (see Finkbeiner 2014). I put forward several arguments against a compounding approach and in favour of a reduplication approach. In short, RXRs lack some features of compounds, a fact that should not be ignored. First, as opposed to canonical N+N compounds, nominal RXR constructions do not show linking elements. Cases like *Bücherbücher* ‘books-books’ are to be analysed as reduplications of a noun in its plural form. Second, RXR also applies to adverbs and verbs, two word classes that are not apt to form (new) compounds at all in Contemporary German.³⁸ Both types of evidence strongly support a reduplication analysis. The resemblance to compounds in the domain of nouns and adjectives can possibly be seen as a kind of analogy to an already existing morphological structure in the language, which supports the development of the new one.

The second detailed analysis was concerned with Durative Reduplication. Formally, it is reduplication of an uninflected verb, i.e. of a verb stem (in German: *Inflektiv*). As I have argued, reduplication of

³⁸ There is only a handful of compound-like adverbs and verbs in present-day German, and, moreover, their modifier-head structure is highly disputable.

verbs in the outlined way is linked to the expression of durative aspect (*knister-knister* ‘to crackle’, *freu-freu* ‘to be glad’). The durative interpretation emanates from the iterative meaning of many uninflected verbs. Iterativity, in turn, results from the fact that numerous uninflected verbs have their origin in ideophones, which most often depict a repetitive or quickly recurring sound. This entails an interpretation as durative.

Finally, what I hope to have shown in this paper is the fact that it will always be worth venturing into the backwoods of a language. Even in a well-described language such as German, new phenomena are waiting to be discovered...

References

- Adelung, Johann Christoph (1782): Umständliches Lehrgebäude der Deutschen Sprache, zur Erläuterung der Deutschen Sprachlehre für Schulen. Leipzig: Breitkopf.
- Baroni, Marco, Silvia Bernardini, Adriano Ferraresi, Eros Zanchetta (2009): The WaCky Wide Web: A collection of very large linguistically processed web-crawled corpora. *Language Resources and Evaluation* 43. 209-226.
- Bollée, Annegret (1978): Reduplikation und Iteration in den romanischen Sprachen. *Archiv für das Studium der neueren Sprachen und Literaturen* 215. 318-336.
- Bzdęga, Andrzej Zdzisław (1965): Reduplizierte Wortbildung im Deutschen. *Praca Wydana z Zasiłku Polskiej Akademii Nauk*, Poznań.
- Dingemanse, Mark (this volume): Ideophones and reduplication. Depiction, description, and the interpretation of repeated talk in discourse.
- Dingemanse, Mark (in press): Expressiveness and system integration: On the typology of ideophones, with special reference to Siwu. To appear in: *Language Typology and Universals (STUF)*.
- Donalies, Elke (2002): *Die Wortbildung des Deutschen*. Tübingen: Narr.
- Erdmann, Hans (ed.) (1960): *Volkslieder aus Mecklenburg*. Schwerin: Petermännken.
- Finkbeiner, Rita (2014): Identical constituent compounds in German. *Word Structure* 7. 182-213.
- Fleischer, Wolfgang & Irmhild Barz (2012): *Wortbildung der deutschen Gegenwartssprache*. Berlin, Boston: de Gruyter.
- Fuhrhop, Nanna (2007): *Zwischen Wort und Syntagma. Zur grammatischen Fundierung der Getrennt- und Zusammenschreibung*. Tübingen: Niemeyer.
- Ghomeshi, Jila, Ray Jackendoff, Nicole Rosen & Kevin Russell (2004): Contrastive focus reduplication in English (The *salad-salad* paper). *Natural Language and Linguistic Theory* 22. 307-357.
- Göksel, Asli & Celia Kerslake (2005): *Turkish. A Comprehensive Grammar*. London: Routledge.
- Grimm, Jacob & Wilhelm Grimm (1854-1961): *Deutsches Wörterbuch*. 16 Bände. Leipzig: Hirzel.
- Groß, Michael (2000): Reduplikation im Deutschen. Ein paar systematische und ein paar unsystematische Bemerkungen. In: Hess-Lüttich, Ernest W. B. & H. Walter Schmitz (eds.), *Botschaften verstehen. Kommunikationstheorie und Zeichenpraxis. Festschrift für Helmut Richter*. Frankfurt am Main: Lang. 101-116.
- Günther, Hartmut (1981): N+N: Untersuchungen zur Produktivität eines deutschen Wortbildungstyps. In: Lipka, Leonhard & Hartmut Günther (eds.), *Wortbildung*. Darmstadt: Wissenschaftliche Buchgesellschaft. 258-280.
- Hohenhaus, Peter (1996): Ad-hoc-Wortbildung – Terminologie, Typologie und Theorie kreativer Wortbildung im Englischen. Frankfurt am Main: Lang.
- Hohenhaus, Peter (2004): Identical constituent compounding: A corpus-based study. *Folia Linguistica* 38. 297-331.

- Horn, Laurence R. (1993): Economy and redundancy in a dualistic model of natural language. In: Shore, Susanna & Maria Vilkkuna (eds.), SKY 1993. 1993 Yearbook of the Linguistic Association of Finland. Helsinki: Suomen kielitieteellinen yhdistys. 33-72.
- Horn, Laurence R. (2006): Speaker and hearer in neo-Gricean pragmatics. *Journal of Foreign Languages* 164. 2-26.
- Horn, Laurence R. (to appear a): The lexical clone: Pragmatics, prototypes, productivity. To appear in: Finkbeiner, Rita & Ulrike Freywald (eds.), *Exact Repetition in Grammar and Discourse*. Berlin, Boston: Mouton De Gruyter.
- Horn, Laurence R. (to appear b): Pragmatics and the lexicon. To appear in: Huang, Yan (ed.), *The Oxford Handbook of Pragmatics*. Oxford: Oxford University Press.
- Inkelas, Sharon & Cheryl Zoll (2005): Reduplication. *Doubling in Morphology*. Cambridge: Cambridge University Press.
- Kentner, Gerrit (2013): On the emergence of reduplication in German morphophonology. Published on *LingBuzz*, 31p. Online-publication. URL: <http://ling.auf.net/lingbuzz/001810/>
- Kürschner, Sebastian (2010): *Fuge-n-kitt, voeg-en-mes, fuge-masse und fog-e-ord*. Fugenelemente im Deutschen, Niederländischen, Schwedischen und Dänischen. In: Dammel, Antje, Sebastian Kürschner, Damaris Nübling (eds.), *Kontrastive Germanistische Linguistik*. Vol. 2. Hildesheim: Olms. 827-862.
- Lewalter, Johann (1911): *Deutsches Kinderlied und Kinderspiel*. Kassel: Vietor.
- Lewis, Geoffrey L. (1967): *Turkish Grammar*. Oxford: Clarendon.
- Lohde, Michael (2006): *Wortbildung des modernen Deutschen*. Tübingen: Narr.
- Medici, Mario (1959): Il tipo 'caffè-caffè'. *Lingua nostra* 20. 84.
- Mel'čuk, Igor' A. (1996): *Cours de morphologie générale*. Vol. 3. Troisième partie: Moyens morphologiques. Quatrième partie: Syntactiques morphologiques. Montréal: Presses de l'Université de Montréal.
- Meibauer, Jörg & Carmen Scherer (2007): Zur Semantik von V+V-Komposita im Deutschen. In: Kauffer, Maurice & René Métrich (eds.), *Verbale Wortbildung im Spannungsfeld zwischen Wortsemantik, Syntax und Rechtschreibung*. Tübingen: Stauffenburg. 85-95.
- Moravcsik, Edith A. (1978): Reduplicative constructions. In: Greenberg, Joseph H. (ed.), *Universals of Human Language*. Vol. 3: Word Structure. Stanford: Stanford University Press. 297-334.
- Mukherji, Mishka Shreya (2014): Bengali fixed-segment reduplication in morphology and phonology. *Georgetown University Working Papers in Linguistics* 8. 77-118.
- Nübling, Damaris & Renata Szczepaniak (2009): *Religion+s+freiheit, Stabilität+s+pakt und Subjekt(+s+)pronomen*: Fugenelemente als Marker phonologischer Wortgrenzen. In: Müller, Peter O. (ed.), *Studien zur Fremdwortbildung*. Hildesheim: Olms. 195-222.
- Nübling, Damaris & Renata Szczepaniak (2013): Linking elements in German. Origin, change, functionalization. *Morphology* 23. 67-89.
- Ortner, Hanspeter & Lorelies Ortner (1984): *Zur Theorie und Praxis der Kompositaforschung*. Tübingen: Narr.
- Pankow, Christiane (2003): Zur Darstellung nonverbalen Verhaltens in deutschen und schwedischen IRC-Chats. Eine Korpusuntersuchung. *Linguistik online* 15 (online-publication). 89-124. URL: http://www.linguistik-online.de/15_03/pankow.pdf
- Pauer, Susanne (2013): Der Inflektiv – Wortbildungsphänomen der Zukunft? In: Born, Joachim & Wolfgang Pöckl (eds.), *„Wenn die Ränder ins Zentrum drängen...“ Außenseiter in der Wortbildung(sforschung)*, Berlin: Frank & Timme. 265-286.
- Rehbein, Ines (2013): Fine-Grained POS Tagging of German Tweets. In: Gurevych, Iryna, Chris Biemann & Torsten Zesch (ed.), *Language Processing and Knowledge in the Web*. Proceedings of the International Conference of the German Society for Computational Linguistics and Language Technology (GSCL) 2013. Berlin, Heidelberg: Springer. 162-175.
- Rehbein, Ines, Sören Schalowski & Heike Wiese (2014): The KiezDeutsch Korpus (KiDKo) Release 1.0. Proceedings of the 9th Language Resources and Evaluation Conference (LREC), 26-31 May 2014. Reykjavík, Island. 3927-3934. Online: <http://www.lrec-conf.org/proceedings/lrec2014/summaries/1081.html>
- Richling, Julia (2008): *Die Sprache in Foren und Newsgroups*. Saarbrücken: VDM Verlag Dr. Müller.
- Rossi, Daniela (2011): Lexical reduplication and affective contents. A pragmatic and experimental perspective. *Belgian Journal of Linguistics* 25. 148-175.

- Rossi, Daniela (2015): Creative uses of reduplication as legitimate instances of total reduplication: Arguments of French. Talk at the 37th Annual Conference of the German Linguistic Society (DGfS), Leipzig, Germany, 4-6 March 2015.
- Rubino, Carl (2005): Reduplication: Form, function and distribution. In: Hurch, Bernhard (ed.), *Studies on Reduplication*. Berlin, New York: Mouton de Gruyter. 11-29.
- Scherer, Carmen (2012): Vom *Reisezentrum* zum *Reise Zentrum*. Variation in der Schreibung von N+N-Komposita. In: Gaeta, Livio & Barbara Schlücker (eds.), *Das Deutsche als kompositionsfreudige Sprache. Strukturelle Eigenschaften und systembezogene Aspekte*. Berlin: De Gruyter. 57-81.
- Schindler, Wolfgang (1991): Reduplizierende Wortbildung im Deutschen. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 44. 597-613.
- Schlobinski, Peter (2001): *knuddel – zurueckknuddel – dich ganzdollknuddel*. Inflektive und Inflektivkonstruktionen im Deutschen. *Zeitschrift für germanistische Linguistik* 29. 192-218.
- Stolz, Thomas (2008): Total reduplication vs. echo-word formation in language contact situations. In: Siemund, Peter & Noemi Kintana (eds.), *Language Contact and Contact Languages*. Amsterdam, Philadelphia: Benjamins. 107-132.
- Stolz, Thomas, Cornelia Stroh & Aina Urdze (2011): *Total Reduplication. The Areal Linguistics of a Potential Universal*. Berlin: Akademie-Verlag.
- Teuber, Oliver (1999): *fasel beschreib erwähn* – Der Inflektiv als Wortform des Deutschen. In: Butt, Matthias & Nanna Fuhrhop (eds.), *Variation und Stabilität in der Wortstruktur*. Hildesheim: Olms. 7-26.
- Thompson, Hanne-Ruth (2012): *Bengali*. Amsterdam, Philadelphia: Benjamins.
- Wierzbicka, Anna (1991): *Cross-Cultural Pragmatics. The Semantics of Human Interaction*. Berlin, New York: Mouton de Gruyter.
- Wiese, Heike (2009): Grammatical innovation in multiethnic urban Europe: New linguistic practices among adolescents. *Lingua* 119. 782-806.
- Wiese, Heike (2012): *Kiezdeutsch. Ein neuer Dialekt entsteht*. München: Beck.
- Wiese, Heike (2014): Constructional pejoration in a language-contact situation: *m*-doublets in urban German. Talk at the 36th Annual Conference of the German Linguistic Society (DGfS), Marburg, Germany, 5-7 March 2014. Online: <http://www.uni-potsdam.de/dspdg/pers/wiese.html>
- Wiese, Heike & Nilgin Taniş Polat (to appear): Pejoration in contact: *m*-reduplication and other examples from urban German. To appear in: Finkbeiner, Rita, Jörg Meibauer & Heike Wiese (eds.), *Pejoration*. Amsterdam, Philadelphia: Benjamins.
- Wiese, Heike, Ulrike Freywald, Sören Schalowski & Katharina Mayr (2012): Das KiezDeutsch-Korpus. Spontansprachliche Daten Jugendlicher aus urbanen Wohngebieten. *Deutsche Sprache* 40. 97-123.
- Wiese, Richard (1990): Über die Interaktion von Morphologie und Phonologie: Reduplikation im Deutschen. *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung* 43. 603-624.

Internet resources

- [a] Football forum, user name, <http://community.fussball.de/de/id/HeinzHeinz.html>
- [b] “Neon” (a monthly magazine for young readers), user name, <http://www.neon.de/user/tinatina>
- [c] Forum for aquarists, user name, <http://www.korallenriff.de/user/19620/AndiAndi>
- [d] Nightlife & party forum, user name, <http://gesichterparty.de/user/tanjatanja>
- [e] “golocal” (a city journal), user name, <http://www.golocal.de/user/61235e3b3928ed3f33bc3e38ef0c99c2/>