Identical constituent compounds in German

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Abstract

The status of identical constituent compounds (ICCs) (e.g. Künstler-Künstler, ’artist-artist’) is discussed controversially in the morphological literature on German. In this paper, it is claimed that ICC formation is a productive word formation pattern in German. In the first part of the paper, I investigate the formal, semantic and pragmatic properties of ICCs in German. Based on this description, I discuss in more detail two conflicting claims about their meaning constitution: the ‘prototype reading claim’ and the ‘context-dependency claim’. I argue that ICCs do not behave differently, in principle, from canonical N+N compounds with respect to context-dependency. Based on a discussion of selected theoretical models of nominal compounds, an approach is sketched that takes into account not only semantic and contextual, but also stored conceptual and experiential knowledge as main sources of knowledge in ICC interpretation. In the second part of the paper, the results of a pilot experimental study are presented in which 40 native speakers were asked to paraphrase a set of context-free German ICCs. The findings clearly indicate that ICCs are systematically interpretable in isolation, with a significant preference for ‘prototype’ (e.g. Winter-Winter: ‘very cold winter’) and ‘real’ readings (e.g. Holz-Holz: ‘real wood, not artificial wood’).

1. Introduction

In recent years, the linguistic process of ‘identical constituent compounding’ (ICC\(^2\), cf. Hohenhaus 2004) – also called ‘contrastive focus reduplication’ (Ghomeshi et al.), ‘double construction’ (Dray 1987; Horn 1993), ‘lexical cloning’ (Horn 2006; Huang 2009), or ‘real-X-TR’ (with ‘TR’ = ‘total reduplication’, Stolz et al. 2011) – has gained increasing attention, within both pragmatic and typological research (e.g. Levinson 2000; Wierzbicka 2003; Stolz et al. 2011). ICC formation is claimed to exist in
numerous languages (Huang 2009: 134). Well-known English and Italian examples, respectively, are (1) and (2).

(1) Engl. *I'll make the tuna salad, and you make the salad-salad* (Ghomeshi et al. 2004: 308)

(2) Ital. *caffe` caffe`* (‘real coffee, no surrogate’; ‘strong coffee’) (Wierzbicka 2003: 265; Rossi 2011: 155)

In Italian, this is a regular total reduplication pattern that is very well-established and commonly used (Medici 1959; Wierzbicka 2003; Rossi 2011). In English, the pattern is also frequently employed in colloquial speech, but it is a relatively recent phenomenon. In a corpus study including both British and American sources, Hohenhaus (2004) found that the majority of examples were from the 1990s onward. The semantic effect of this construction is, according to Ghomeshi et al. (2004: 308), ‘to focus the denotation of the reduplicated element on a more sharply delimited, more specialized range’. Similarly, Hohenhaus (2004: 301) suggests the interpretational schema ‘an XX is a proper/prototypical X’ (cf. also Horn 1993). As to their usage, it is widely held that ICCs are heavily context-dependent, preferably occurring within contrastive contexts (such as ‘not X, but XX’).

In this paper, I will focus on ICC formation in German. It is controversial whether or not ICC formation is a productive process in German. If this process productively exists (and I will argue in favor of this assumption), we have to ask what kind of linguistic process it is – i.e. morphological or syntactic – and what the relevant formal properties of German ICCs are. Furthermore, a central question concerning ICCs is how their meaning constitution may be described: What is the abstract semantic meaning of the pattern, and what role does the context play in ICC interpretation? Is the meaning constitution of ICCs semantically induced, or is it (purely) pragmatic? What kind of stored knowledge do native speakers of German have about the pattern as such?

As to the existence of ICC formation in German, there are opposite opinions in the morphological and typological literature. While Hohenhaus (2004: 319) claims that ‘ICCs are at least as common in German as they are in English’, Ghomeshi et al. (2004: 312–313) do not accept German as an ICC language. Standard works on German morphology such as Motsch (1999) and Eisenberg (2006) do not mention the process. While in Duden (1984: 406), there is a very short note on expressive Augenblicksbildungen (expressive ad hoc formations) of the type *Theater-Theater* (‘theater theater’), more recent editions of Duden (2005; 2009) don’t refer to ICC formation at all. Some works refer to the process by the label of ‘self-compounding’ (Fleischer 1978; Günther 1981; Schindler 1990; Neef 2009; Fleischer & Barz 2012), mostly assuming that self-compounds form a small and rather marginal subclass of determinative compounds, i.e. of compounds with a semantic modifier-head structure. Others explicitly exclude self-compounds from the set of possible compounds in German, arguing that compounding essentially is a process of combining dissimilar constituents (Kürschner 1974; cf. also Downing 1977 on English).
Against this view, Erben (1981: 39–40), Ortner (1991: 124) and Hohenhaus (1998: 156) independently provide different sets of attested ad hoc examples for German, including *Mann-Mann* (‘man-man’), *Winter-Winter* (‘winter-winter’), *Dirndl-Dirndl* (‘dirndl dirndl’), *Jäger-Jäger* (‘hunter-hunter’), *Besen-Besen* (‘broom-broom’), and *Stuhl-Stuhl* (‘chair-chair’). Hohenhaus (2004) adds *Film-Film* (‘film film’), as invented by the TV channel Sat.1. Also Mau (2002) refers to the process, providing the additional example *Hit-Hits der 60er und 70er Jahre* (‘hit hits of the sixties and seventies’), as used by a Hamburg broadcasting station. Günther (1981), experimentally testing examples such as *Holzholz* (‘wood.wood’) and *Sommersommer* (‘summer.summer’), found that self-compounding is a productive word formation process in German.

Recent typological research on total reduplication suggests that ICC formation in German is gaining ground. While Stolz (2006) is still inclined to deny the existence of (nominal) ICC formation in German, Stolz et al. (2011: 202) concede an increasing acceptability of “real-X-TR in our native German.” More systematic empirical evidence comes from a corpus study Freywald (2012) reports on. Freywald shows that ICC formation in German is used productively not only with nouns (3), but also with adverbs (4) and adjectives (5). Examples (3) and (5) are taken from Freywald’s corpus, (4) is an example that I attested.

With “just” friend I meant that I can’t imagine being together with Daniil. [What] I mean [is], just as “friend-friend”.

(4) [Conversation between two students]

A: *Ich war am Wochenende daheim.*
‘I was at home at the weekend.’

B: *Hier in Mainz oder daheim-daheim?* [i.e. at the parent’s place]
‘Here in Mainz or home-home?’

(5) *Er hat Tagesdienste, das heißt er muss den ganzen Tag arbeiten, also von früh bis spät . . . also früh-früh bis spät-spät*
‘He has day shifts, which means that he must work all day, that is from early till late . . . that is from early-early till late-late.’

In this paper, I will focus on nominal instances of ICCs. I take the examples provided above as evidence for my claim that this process does productively exist in German (though it certainly is less ubiquitous in German than in, e.g., English, contra Hohenhaus 2004). The experimental study presented in this paper will provide further evidence for this claim.

In part, the controversy about the existence of ICC in German may be explained by the unclear status of the process as such: Is it a morphological process (and if yes, is it compounding proper or is it reduplication?), or does it belong entirely into the sphere of syntax and pragmatics? While Ghomeshi et al. (2004) claim that constructions such
as *salad-salad* are the result of a syntactic reduplication process, Hohenhaus (2004) argues for a morphological process of compounding. In this paper, I will provide further structural and semantic evidence in favor of Hohenhaus’ compound analysis for German ICCs. However, I will also show that ICCs share a range of features with total reduplication (see Section 2.1). According to Hohenhaus (2004), the results of ICC formation are non-lexicalizable ad hoc formations. The property of non-lexicalizability is characterized in Hohenhaus (1998: 241) as ‘the impossibility of a word-formation to be listed’, i.e. ‘it cannot be given an entry in the lexicon and thereby become part of the language’s vocabulary’. Thus, according to Hohenhaus, ICCs may not be potential listemes, but they may well be possible words (cf. Hohenhaus 2005: 366). However, it is not clear why ICCs should be generally non-lexicalizable. Why should language users not store compounds like *Winter-Winter* ‘very severe winter’? Obviously, this claim depends on the assumption that the interpretation of ICCs is necessarily context-dependent (see below). In this paper, however, I will provide evidence for the claim that ICCs can easily be interpreted in isolation. Moreover, even if ICCs typically may not become lexicalized, the process of ICC formation equally must be part of the lexical component of the language faculty. A comprehensive theory of word formation also must explain the usage of word formation patterns whose products are primarily performance-oriented (cf. Bauer 2003; Booij 2005).

As to the interpretation of ICCs, Huang (2009: 139) points out that ICCs are ‘heavily context-dependent’, claiming that ‘the vast majority of lexical clones is impossible to be interpreted properly out of context’ (my emphasis). This view is supported by Rossi (2011: 164), who claims that ICC interpretation gives rise to both contextually induced explicatures and to affective implicatures. On the other hand, the prototype analysis (e.g. Hohenhaus 2004) predicts that ICCs should be interpretable out of context, as it ascribes the word formation process of ICCs an abstract semantic interpretation pattern. I will argue that these two contradictory positions are in fact not so contradictory if we adopt the view that many linguistic expressions, among them the majority of canonical dissimilar *N+N* compounds, are semantically underspecified and in need of contextual enrichment (e.g. Levinson 2000; Carston 2002; Recanati 2004). Thus, I will claim that ICC interpretation is not in principle different from the interpretation of canonical *N+N* compounds. However, contra Weiskopf (2007), who proposes an indexical account to compound nominals based on three logical-semantic relations, I claim that an adequate account of compounds also must take into consideration stored conceptual and experiential knowledge that speakers have available.

The aim of this paper is to give a systematic account of the process of ICC formation in German both from a theoretical and an experimental point of view. In Section 2, I discuss the characteristic formal properties of ICCs in German, arguing for the claim that ICC formation in German is a kind of compounding process. In Section 3, I describe in more detail the semantic and pragmatic properties of German ICCs. In Section 4, I discuss a range of theoretical approaches to ICC meaning. First, I present two standard claims about ICCs, the prototype reading claim and the
context-dependency claim, and show that these claims are in need of some refinement. Then, I sketch different approaches to canonical N+N compounds from the perspective of the semantics/pragmatics interface, going into some more detail with Weiskopf’s (2007) account. Based on this discussion, I sketch an alternative approach to ICCs that takes into account both semantic, conceptual, experiential and contextual knowledge. In Section 5, I present and discuss the results of a first exploratory experimental study on the context-free comprehension of ICCs. Section 6 concludes.

2. ICC formation in German: A syntactic or morphological process?

In this section, I will address the question whether the process of ICC formation is a syntactic or a morphological process, i.e. whether ICCs are to be analyzed as phrasal constructions or as complex words. If they are complex words, one has to ask whether or not they are proper compounds. I will argue in favor of a compound analysis, but also point to some properties that ICCs share with total reduplication.

Formally, an ICC is a construction of two completely identical words – with the focus in this paper being on nouns – that are adjacent to each other, with no phonological material in between. This formal description, so far, is compatible with a compound analysis as well as with a total reduplication analysis.

As to English, Ghomeshi et al. (2004: 322) argue against a compound analysis of what they call contrastive focus reduplication (CFR). First, they point out that CFR in English may apply to phrases, as in SLEEPING-TOGETHER-sleeping-together. Compounding, they argue, may not involve phrases. However, in German, phrasal compounding is a productive process (e.g. Schwarze-Kassen-Affäre, ‘black-cash-scandal’, Irgendetwas-stimmt-mit-dem-Jungen-nicht-Blick, ‘There-is-something-the-matter-with-the-boy-glance’, cf. Meibauer 2003), with phrasal compounds behaving like complex words. Thus, while I am not aware of phrasal instances of German ICCs, their potential existence would not be, in principle, an obstacle to a compound analysis of ICCs, as German exhibits phrasal compounding.

Second, Ghomeshi et al. (2004: 322) argue that ‘compounding typically excludes overt inflection on the first element’, as it is found in English CRIED-cried. For German, I have no attested examples of such forms (in general, verbs seem to be excluded in German, cf. Freywald 2012). Rather, it seems that German ICCs behave like complex words with respect to inflection, i.e. inflection only applies to the complex word as a whole, as may be illustrated by the constructed example diese extrem teuren Wein-Weine/*Weine-Weine/*Weine-Wein (‘those extremely expensive wine-wines’). This example shows, more generally, that ICCs behave word-like in that they may function as syntactic heads, i.e. they can project phrases and can be modified by attributes.

Third, Ghomeshi et al. (2004: 322) exclude the possibility of pronouns – which do occur in CFR – as constituents of compounds. This, again, is not true for German, where pronouns may be part of (phrasal) compounds (e.g. Ich-AG, Wir-Gefühl, Wie-für-mich-gemacht-Kredit, cf. also Kentner 2013: 9). In sum, we may refuse the
arguments provided by Ghomeshi et al. (2004) as not convincing for the case of German.

As a crucial argument in favor of a complex word analysis of ICCs we may take stress. Hohenhaus (2004) points out that the main stress in ICCs – both in English and in German – is on the first constituent, in accordance with the stress pattern of canonical compounds, and in contrast to phrasal stress, cf. e.g. a black BIRD vs. a BLACKbird. Even Ghomeshi et al. (2004), while in general refusing a compound analysis of CFR, agree that CFR prosodically resemble compounds.

Furthermore, ICCs are structurally right-headed, i.e. they exhibit a modifier–head structure, just like canonical compounds in German. It’s true that, because of the identity of the two constituents, it is not easy to decide, on categorical or semantic grounds, about the modifier or head status of the two constituents, in contrast to most dissimilar N+N compounds, where this decision is straightforward (‘wine glass’: \textit{Wein}_{masc}+\textit{Glas}_{neut} > \textit{Weinglas}_{neut}; \textit{Weinglas}: ‘Glass for wine’). On the other hand, there is nothing that would suggest that ICCs, exceptionally, should be analyzed as cases of left-headedness. According to Kentner (2013), German speakers have the clear intuition that the right part of ICCs is the semantic head, while Italian and French speakers find that the left part is the semantic head. This observation ‘correlates perfectly with the head-modifier ordering in canonical compounds in these languages’ (Kentner 2013: 9).

Thus, I take it as the most plausible assumption that German ICCs are complex words, not phrases. However, the question remains whether ICCs are proper compounds or rather cases of total reduplication at word-level (e.g. Gil 2005). At least, ICCs exhibit a range of formal properties that are quite unusual for canonical compounds.

A first formal difference to canonical compounds is that ICCs never exhibit linking elements (L.E). It is common opinion on German morphology that each nominal lexeme has (exactly) one\(^9\) default form for the position of the left-hand constituent of a compound, where in a not so small number of cases, this form is longer than the stem, usually with a L.E, e.g. \textit{Freundeskreis} (friend-L.E.circle), \textit{Hasenbraten} (hare-L.E.roast), \textit{Eierbecher} (egg-L.E.cup). While the majority of nouns always come without L.E, it is a rule that if a default compound stem form is available that is longer than the stem, this form must be used in compounding. Thus, as the default compound stem form of \textit{Liebe} (‘love’) is \textit{Liebes-} (love-L.E), we get \textit{Liebesbrief} (love-L.E.letter) and \textit{Liebesheirat} (love-L.E.marriage), but not *\textit{Liebebrief} (love.letter) or *\textit{Liebeheirat} (love.marriage). In ICCs, in contrast, this rule does not apply: We may predict that an ICC with \textit{Liebe} as constituent will get the form \textit{Liebeliebe} (love.love), not *\textit{Liebesliebe} (love.love). While \textit{Liebiesliebe} has a potential reading as a determinative compound, meaning roughly ‘love of love’, a true ICC reading (‘real love’, ‘very intense love’ or the like) seems to be excluded.

Another formal difference to canonical compounds is that ICCs cannot consist of more than two constituents (*\textit{Buch-Buch-Buch}), while canonical compounds in German are highly recursive (e.g. \textit{Hand.buch.artikel.rezensions.verfasserin} ‘author of a review of an article in a handbook’). Thus, in this respect, ICCs resemble instances of
total reduplication on word level, which standardly consist of exactly two constituents (cf. Gil 2005).

Moreover, whereas canonical compounds usually exhibit compound-spelling (e.g. Liebesbrief, Haustür), the most common ICC spelling is hyphenated spelling (e.g. Mann-Mann, Winter-Winter). This might be taken as indicating a rather insecure compound status of ICCs. On the other hand, according to German orthographic norms (Deutsche Rechtschreibung, 2006), hyphenated spelling also is allowed for canonical compounds in a range of cases (e.g. in order to avoid ambiguity, cf. Druck-Erzeugnis ‘print product’ vs. Drucker-Zeugnis ‘certificate for a printing craftsman’, or to improve structural transparency or readability, cf. Lotto-Annahmestelle, ‘lotto ticket receiving office’, See-Elefant, ‘sea elephant’). Scherer (2012) shows in her study on compound spelling in German that writers increasingly use hyphenated spellings even for canonical compounds. Thus, it is questionable whether we may take the hyphenated spelling as an indicator pro or contra the status of ICCs as proper compounds.

Thus, on formal grounds alone, it is difficult to decide about the compound status of ICCs. The major argument in favor of a compound analysis comes from semantics. As already pointed out above, ICCs ‘mostly show the logico-semantic ‘determinans-determinatum’ compound structure’ (Hohenhaus 2004: 323, footnote 24), i.e. ICCs share with canonical compounds the semantic effect of subcategorizing a concept. We may represent this by the general formula ‘an AB is a B’, which comprises as a special case ‘an XX is an X’ (‘a wine glass is a glass’; ‘a winter winter is a winter’).

However, one can observe specific differences between the semantic structures of ICCs versus determinative compounds: In (transparent) determinative compounds, both constituents contribute to the overall meaning of the compound. That is, both the meanings of wine and of glass are part of the compound meaning ‘wine glass’, which is reflected by the fact that both nouns figure in the standard paraphrase, e.g. wine glass: ‘glass for wine’. In contrast, the prototype reading of an ICC such as Winter-Winter is not the result of a process of combining the lexical meanings of X₁ and X₂. In the standard paraphrase of ICCs, the base noun occurs only once, e.g. Winter-Winter: ‘a prototypical winter’. One might try to capture this by assuming that X₂ contributes its lexical meaning, and X₁ contributes some kind of functional meaning (‘real’, ‘prototypical’, ‘intense’); this, however, would be quite unintuitive (which process should license the assignment of this kind of functional meaning to the lexical item X?). Rather, the relevant process is to be modeled as a functional procedure (namely, doubling of a lexical item X) that yields the effect of intensifying or restricting the lexical meaning of X. In exhibiting this kind of procedural meaning, ICC formation, again, resembles the process of (total) reduplication.

We may conclude that ICCs share the general properties of right-headedness and semantic subcategorization with determinative compounds; on the other hand, the procedural meaning constitution of ICCs is close to the semantics of reduplicative constructions.

The difference between determinative and reduplicative semantics is reflected also in the distinction between self-compounds and (true) ICCs. By the label of
self-compounding, the German morphological literature usually refers to the (rather small class of) compounds like Kindeskind (‘child of the child’, ‘grandchild’) or Zinsezins (‘interest on interest’, ‘compound interest’). Just like ICCs, they consist of two identical words. However, they differ in important respects from ICCs. First, they exhibit linking elements (Zins-es.zins, interest-LE.interest; Kind-es.kind, child-LE.child; Wissenschaft-s.wissenschaft, science-LE.science). Second, they usually show compound spelling (e.g. Personenperson, Wissenschaftswissenschaft, cf. Erben 1981). Third, they can be assumed to be recursive (it is, at least, not so difficult to create contexts in which Kindeskindeskind, ‘child of a child of a child’ makes sense). In sum, they behave exactly like canonical determinative compounds which accidentally consist of identical constituents (Arbeiterkind: ‘child of a worker’, Kindeskind: ‘child of a child’, cf. Kentner 2013: 8).

This is confirmed by the observation that those examples in Erben (1981: 40) that exhibit linking elements (e.g. Personenperson, person-LE.person, Wissenschaftswissenschaft, science-LE.science) also are assigned determinative readings, not reduplicative ones, cf. Personenperson: ‘the fact that within a single person, so many other persons may be hidden’ (Erben 1981: 40). In fact, it seems that if a compound with two identical constituents contains a linking element, this biases the interpretation towards a determinative reading. A biasing effect of the linking element towards a determinative reading has been claimed to be true for co-compounds as well (cf. Neef & Borgwaldt 2012: 32), which may be ambiguous between a determinative and a coordinative reading. For example, the compound Komponistenmaler (composer-LE.painter) exclusively gets the reading ‘a person who paints composers’, whereas Komponist-Maler (composer-painter), a true co-compound, denotes a person who is a composer and a painter at the same time.

Note, however, that I do not intend to claim that ICCs cannot get a determinative interpretation. Of course, a compound such as Gedicht-Gedicht (‘poem poem’) is potentially ambiguous between a determinative (e.g. ‘a poem about a poem’) and a prototype reading (e.g. ‘a very good exemplar of a poem, e.g. one that rhymes’); this will also be shown below in more detail. What I claim is just that the prototype interpretation of ICCs, which generally is regarded to be the default ICC interpretation, is not an instance of a determinative relation, but rather an instance of a reduplicative reading. Below, I will discuss in more detail the question of how to properly describe the potential ambiguity of ICCs.

### 3. Semantic and pragmatic properties of ICCs in German

Having argued for a compound analysis of ICCs, I will now describe in more detail the semantic and pragmatic properties of ICCs in German. This description will lay the ground for the discussion of different theoretical approaches to ICC meaning in Section 4.

As to the semantics of canonical (dissimilar) N+N compounds, the general linguistic literature postulates from as few as six to as many as 20 different semantic categories to characterize the relation between the two nouns (cf. e.g. for German
Kürschner 1974; Ortner & Ortner 1984; Fandrych & Thurmair 1994). Some widely accepted relations are FOR (tooth brush), HAS (apple pie), MATERIAL (snowman), LOCATED (farm animal), TEMPORAL (winter night), CAUSE (sunburn), LIKE (banana boat), and FROM (seafood). Whereas Downing (1977: 828) remarks that lists of possible compounding relationships at most can ‘reflect[s] the fact that certain types of relationships are typically perceived to be of greater classificatory value than others’, Krott et al. (2010), in a study on compound acquisition, suggest ‘that when adults are presented with an unfamiliar compound (e.g. apple ring), they usually concur on a small set of relations and often have a strong preference for a single relation (ring made of apple)’ (Krott et al. 2010: 374, my emphasis). Whereas one cannot be sure to cover all novel compounds by way of lists of possible relationships (cf. Günther 1981: 277), the view that compound semantics can be modeled by the help of a set of potential relations is widely accepted since Levi (1978).

For ICCs, in contrast, it is usually assumed that they do not exhibit any of these canonical compound relations, but are instead interpreted along the interpretational schema ‘an XX is a proper/prototypical X’ (Hohenhaus 2004: 301). For example, in the English example (6), job-job is interpreted as ‘a proper, full time job’; in (7), pain-pain is interpreted as ‘real, physical pain’ (examples from Hohenhaus 2004: 299–300).

(7) Adam: [referring to his partner undergoing IVF] . . . that she’s going through all this pain. I mean not just emotional pain, but pain-pain.

As pointed out above, the prototype reading can be regarded as different from the canonical (determinative) compound relations in that it is not the result of a combination of the lexical meanings of N1 and N2 (plus further processes to infer the actual relation between N1 and N2), but rather seems to operate on the single noun, restricting or narrowing its meaning. This is a procedural meaning effect which is well-known from reduplication. In the typological research on reduplication, it is referred to by the category of ‘absoluteness’ (Stolz et al. 2011).

Other semantic effects that have been described for the complete and adjacent iteration of nouns are plurality, distribution, diminution, and adverbialisation (e.g. Moravcsik 1978; Stolz et al. 2011). Plurality is expressed, e.g., by Indonesian kanak kanak (‘child child’: ‘children’, Hurch et al. [without year] p. 2). An example of distributive semantics is Italo-Roman mattina mattina (‘morning morning’: ‘each morning’, Stolz et al. 2011: 475). Diminution can be illustrated by Saramaccan baafu-baafu (‘soup soup’: ‘soup-like’, Kouwenberg and LaCharité 2001: 73). An example of adverbialisation is Italo-Roman paura paura (‘fear fear’: ‘very fearfully’, Stolz et al. 2011: 469).

The category of absoluteness, which is the most interesting category for the purposes of this paper, is also referred to by ‘exactness’ and ‘identity’ (Stolz et al.
An example is Italian (Salentino) *cima cima* (‘top top’: ‘the very top’, Stolz et al. 2011: 463). Stolz et al. (2011) point out that

[i]f reference has to be made to the top in the strictest sense of the term, it is not sufficient to use *cima* ‘top’ alone as it is relatively vague. [...] *Cima cima* invites only one reading, namely that of ‘topmost part’. (Stolz et al. 2011: 463)

This is what Ghomeshi et al. (2004: 308) describe as the semantic effect of focusing ‘the denotation of the reduplicated element on a more sharply delimited, more specialized range.’

Elsewhere, Stolz et al. (2011: 199) introduce the category of ‘real-X TR’ (TR = total reduplication). ‘Real-X TR’ is exemplified by Italian *caffè caffè* ‘real coffee, no surrogate’ (cf. (2) above), or French *chien chien* (‘dog dog’: ‘a real dog’, ‘a dog with excellent and first-class doggy properties’, cf. Stolz et al. 2011: 1999). Also in these cases, ‘the total reduplication is about features which are associated with authenticity and quintessence’ (Stolz et al. 2011: 199). In other words, ‘the reduplication implies that there is no exaggeration in what is said’ (Wierzbicka 2003: 264).

Below I will argue that the interpretational pattern that is characterized here by the notions of ‘prototypicality’, ‘absoluteness’, or ‘exactness’ must be differentiated into at least two distinct sub-patterns. Furthermore, I will argue that, in principle, ICCs also may receive interpretations along the lines of canonical determinative relations.

As to the pragmatics of ICCs, it has been pointed out repeatedly in the literature that ICCs are typically used in conversation to clarify or single out a certain reading of a range of possible readings of a lexical item (Ghomeshi et al. 2004; Hohenhaus 2004). According to Hohenhaus (2004: 301), they typically occur in a contrastive ‘co-text frame’, where a prototypical instance is contrasted to a less prototypical instance of a category (‘not X, but XX’). This can be observed, e.g., in the English examples above (cf. (6)–(7)). However, it seems that the contrast does not necessarily have to be established in linguistic *co-text*; it is sufficient to have it somewhere in the common ground, as is the case in (8), which I recently came across in the German weekly newspaper *Die Zeit* (September 5, 2013).

(8) **Guyton betont in Interviews, er sehe sich nicht als Künstler-Künstler, halte wenig von Originalität und überlasse gerne dem Drucker die Entscheidungen.**

‘Guyton emphasizes in interviews that he does not regard himself an artist-artist, that he takes no stock in originality and that he likes to leave decisions to the printer.’

This example is from an article about the American artist Wade Guyton, in which it is questioned whether it is justifiable that this man sells ordinary ink-jet printings for hundreds of pounds at Christie’s. The underlying contrastive question, which, however, is not part of the linguistic co-text, is whether this man can be regarded a real artist or not.
In (9), taken from a dialogue in the German television crime series Tatort (broadcasted at the television channel ARD, March 24, 2013), two homonymous readings of a lexical item are contrasted. This kind of example is also attested for English (e.g. Song & Lee 2011 on bat-bat).

(9) [At the forensics department. Assistant examining the corpse, forensics doctor Boerne at some distance from the corpse.]
Boerne: Nachdem das heute noch länger dauern wird, werden wir wohl des Junk-Foods freuen müssen. Pizza oder vietnamesisch, was sagen Sie?
‘As this will take some time today, we are forced to order some junk food. Pizza or Vietnamese, what would you prefer?’
Assistant: Bienenstich.
‘Bee sting.’
Boerne: Wenn Ihnen nach etwas Süßem zumute ist – es lagert noch jede Menge vollreifer Bananen im Kühlfach.
‘If you prefer something sweet – there is lots of ripe bananas in the fridge.’
Assistant: Ich meine Bienenstich-Bienenstich. Hier, sehen Sie mal. Da steckt sogar noch der Stachel.
‘I mean bee sting bee sting. Look, even the stinger is still stuck there.’

As a common situational factor ‘in almost all’ of these contrastive contexts, Hohenhaus (2004: 302) identifies ‘a potential misunderstanding or ambiguity if the doubled constituent were to be used on its own’, arguing that ICCs are ‘bound to highly specific situation conditions, which ultimately are of a meta-linguistic nature’ and that they show a ‘type-of-situation-dependency’ (Hohenhaus 2004: 315). This suggests that the only way to acquire the abstract meaning of ICCs is by (actively or passively) participating in a sufficient number of instances of conversational situations in which the prototype reading of the pattern is employed within such a contrastive frame. Based on this kind of pragmatic experience, adult speakers will be able to connect the pattern to these typical situations of use and to recall the prototype reading even when presented with ICCs in isolation.

The observation that the usage of ICCs is bound to very specific discursive settings can explain that German native speakers, when asked about the pattern, often react skeptically about its actual existence in German. As they are bound to very specific situations, it is to be expected that ICCs occur rather infrequently on the whole. Yet, frequency is not to be confused with productivity. According to Bauer (2001; cf. also Plag 2006), the notion of productivity is ambiguous between ‘availability’ and ‘profitability’. While availability of a morphological process is ‘its potential for repetitive rule-governed morphological coining’ (Bauer 2001: 211), and is determined by the language system, profitability of a morphological process ‘reflects the extent to which its availability is exploited in language use’, and is a gradual notion (Bauer 2001: 211). My claim is that ICCs are productive both in the sense of availability and in the sense of profitability, although it is an empirical question to which degree the process is exploited in German language use. For the aims of this paper, it is important to retain
that the potentially low frequency of ICCs in German is not a compelling argument against their relevance as a productive morphological pattern.

We may summarize, as main claims from the literature, that ICCs are associated with a general, context-independent interpretational pattern (‘prototypicality’) and that context plays a crucial role in ICC interpretation. Below, I will argue that assuming the existence of a general interpretational pattern is not in contrast with the assumption that ICCs receive their fully specified interpretation only in context. Rather, this assumption is in line with the common idea that many linguistic expressions are in systematic need of pragmatic enrichment (e.g. Levinson 2000; Carston 2002; Recanati 2004).

4. Approaches to ICC meaning

I will now discuss in some more detail different theoretical approaches to the question how ICCs are assigned their meaning. First, I look in more detail at the prototype reading claim and the context-dependency claim and present some arguments against them. Then I discuss Weiskopf’s (2007) indexicalist view of nominal compounds and point to some difficulties with the application of this view to ICCs. Based on the discussion, I finally sketch my own claims about the meaning constitution of ICCs.

4.1 The prototype reading claim

As pointed out above, ICCs are generally assumed to be interpreted along the schema ‘an XX is a proper/prototypical X’. This is clearly true for the examples given in the literature, which illustrate the default usage contexts. However, I think that the category of ‘prototypicality’ has to be further distinguished into (at least) two distinct subtypes. For example, dog dog may be used to restrict the denotation of the word dog to real dogs, excluding toy dogs. In this sense, the reduplication conveys that the X is IDENTICAL TO THE CATEGORY ITSELF, hence the label ‘identity’ (Stolz et al. 2011; cf. also Song & Lee 2011). This is also the case with ICCs that are used to disambiguate homonymous lexemes, such as the bee sting example above. By using Bienenstich-Bienenstich, the speaker restricts the denotation of the potentially ambiguous noun such that exact identity with one of its subcategories is expressed. On the other hand, absoluteness is connected with ‘intensity’: By dog dog, one also may refer to A VERY GOOD EXEMPLAR OF THE CATEGORY ‘dog’, e.g. a Border Collie (rather than a Chihuahua). (Of course, the actual interpretations are very much culturally dependent.) In a similar fashion, café café might not only denote the category itself, i.e. real coffee in contrast to a surrogate, but also a ‘very good’ exemplar of a coffee, i.e. ‘strong coffee’, ‘Italian coffee’, ‘espresso’ etc. (cf. Rossi 2011).

Thus, it seems that ‘prototypicality’ is a semantic category that comprises two subclasses, namely (i) identity (‘a real X’; below: REAL reading) and (ii) intensification (‘a very p X’, where p stands for a prototypical property of the category X; below: PROT reading). Interestingly, it turns out here that the category of intensification, which in the typological literature usually is restricted to the reduplication of adjectives
(e.g. *She is a smart, smart woman*, ‘She is a very smart woman’), also occurs with nouns. However, in the case of reduplicated nouns (in contrast to the case of adjectives), it is not explicit which property is to be intensified. This property has to be inferred by speakers from general and/or contextually induced knowledge about prototypical parameters of the category denoted by the noun (e.g. ‘very *strong* coffee’, ‘very *cold* winter’).

Secondly, while I do agree that the REAL and PROT readings are the most frequent readings for ICCs in actual usage contexts, I do not think that they are the only possible ones. As pointed out above, I claim that ICCs have, as a regular pattern of word formation, both a potentiality aspect and an actuality aspect. So far, the literature on ICCs has focused on the actuality aspect, i.e. on the usage of ICCs in actual conversation. I would like to widen the perspective onto the potentiality aspect of ICCs, i.e. onto (knowledge of) the abstract pattern as such. This abstract pattern allows both (i) for reduplicative readings other than REAL and PROT, and (ii) for determinative readings. So, we should not exclude the possibility of contexts in which, e.g., ICCs get a plurality or diminution reading (e.g., *Stuhl-Stuhl* may denote ‘two (or more) chairs (upon each other)’, or even ‘a little chair’). Neither should we exclude the possibility of determinative readings, as pointed out above (*Gedicht-Gedicht*: ‘poem about a poem’).

Obviously, the distinction between determinative and reduplicative readings is not always clear-cut. For example, *Stein-Stein* (‘stone stone’) could be paraphrased as ‘a stone made of stone’, which would be a determinative (MATERIAL) reading. However, ‘a stone made of stone’ is likely to contrast with, say, ‘a stone made of plastic’ (a toy stone), thereby coming very close to the reading ‘a real stone’, which would be a reduplicative (REAL) reading. Similarly, the LIKE relation (*banana boat*), which has been postulated as a subtype of a determinative reading, may come close to the REAL reading (e.g., *Stein-Stein* may be conceptualized as ‘a stone that is just like a stone, nothing more and nothing less’).

Hence, the overarching question is how we should deal with this (potential) multiplicity of meanings. Do we have to assume that ICCs are highly polysemous semantically? Or should we assume that their meaning is highly unspecific and is getting fixed only in context? In the following sections, I will deal with these questions in some more detail.

### 4.2 The context-dependency claim

The context-dependency claim in its most extreme form is advocated by Huang (2009: 139), who claims that ‘the vast majority of lexical clones [ICCs] is impossible to be interpreted properly out of context’ (my emphasis). The view that ICCs are heavily context-dependent is widely held, and surely it does make sense intuitively. Yet, the question is what is meant exactly by context-dependency, and in what ways ICCs behave specifically in this respect. Generally, one may differentiate between context-invariant expressions that always make the same contribution to a proposition, and context-sensitive expressions (e.g. indexicals such as *I, here, now*), that make
varying contributions to a proposition relative to the context of utterance. Research on
the semantics/pragmatics interface has long been discussing linguistic utterance types
which are said to be semantically incomplete and in need of additional pragmatic
processes completing the propositional content. For example, the content of utterances
such as *John has [exactly] four children* (Carston 2002) or *I have eaten [supper]* (Wilson &
Sperber 2002) is supposed to be incomplete without enrichment of the components in
brackets. For the case of (novel) N+N compounds, there is a long research tradition
showing that they are, in principle, open to nearly unrestrictedly many interpretations
(Downing 1977; Levi 1978; Heringer 1984; Meyer 1993). For example, think of
Heringer’s (1984) famous *Fischfrau* (‘fish woman’), with readings such as ‘a woman
selling fish’, ‘a woman with fish as zodiac sign’, ‘a woman that is a fish’, ‘spouse of a
fish’, and many more. Thus, one may ask whether the property of being heavily
context-dependent is something special for ICCs, or whether it is a general property
of N+N compounds, just as of many other linguistic expressions. As I have argued
above, ICCs may be regarded as instances of compounding. In line with this
assumption, I will argue here that also with regard to context-dependency, ICCs
behave like canonical compounds.

The context-dependency of N+N compounds may be modeled in different ways.
Weiskopf (2007) distinguishes between two main accounts, (i) the ‘singular unspecific
meanings’ account and (ii) the ‘multiple specific meanings’ account. Pragmatic
enrichment theorists may count as representatives of (i), e.g. Recanati (2004). Under
this view, an N+N compound has a ‘conventionally determined meaning consisting
only of the juxtaposed meanings of its constituents’ (Weiskopf 2007: 170). This
meaning is semantically complete, i.e. there is no open variable to be filled, in
contrast to the case of mandatory saturation processes. The singular unspecific
meanings account then would posit free enrichment of the head N, e.g. in ‘cat flap’, in
one context, ‘flap’ might be enriched to mean *flap for use by* (a), in another context,
*flap covered by a picture of* (a). Weiskopf objects that it is unintuitive that the semantic
meaning of N+N compounds is complete, because independent of any context, it is
unclear what things it is true of. Rather, in Weiskopf’s view, one should posit a
tacit indexical in the semantic structure of the compound nominal and assume a
process of mandatory saturation.

A representative of (ii) is Levi (1978). On her analysis, compound nominals are
ambiguous, ‘derived from twelve underlying logical structures, each of which contains
a different specific relationship between head and modifier’ (Weiskopf 2007: 171). Two
main objections against this view are, first, that in order to keep the list of relations
small, they must be relatively unspecific, which again raises problems akin to those
faced by (i). Second, ‘the list of possible semantic material filling in a compound is
extensive, and subject to surprising new additions’ (Weiskopf 2007: 171), so that no list
of relations seems likely to capture all uses of N+N compounds (cf. Downing 1977; see
above).

For the case of ICCs, Rossi (2011) proposes a contextualist analysis that we
might subsume under (i). In her view, lexical reduplications [ICCs] ‘give rise to an
explicature made strongly manifest by the speaker and conveyed by the pattern XX’
The content of this explicature can be an intensification or narrowing of X, or an expansion. In this sense, the pattern XX functions as a trigger of a procedural meaning chosen among different possibilities. Under this analysis, there is a (semi-optimal) ‘development of a logical form’ (according to Carston’s (2002) definition of explicature), which means that the logical form of ICCs is conceived as incomplete and in need of enrichment. Yet, in contrast to the indexical analysis, the contextual analysis does not postulate hidden indexicals in the structure of XX. While Weiskopf (2007) claims that under a contextualist view, the pragmatic enrichment process is not mandatory, this is not in line with Rossi’s view that the explicature is ‘made strongly manifest by the speaker and conveyed by the pattern XX’. Thus, what is suggested by a contextualist view may not be a mandatory process (in the sense of saturation), but it is not an entirely optional process either (contra Weiskopf).

One problem I see with Rossi’s account is that it seems to suggest that ICCs nearly automatically give rise to ‘a positively or negatively oriented affective implicature that results from the speaker’s appraisal […] about her/his construal of a state of affairs’ (Rossi 2011: 164). Thus, in examples like I want a coffee coffee (explicature: ‘I want a strong coffee’), the speaker also would communicate the positive appraisal ‘a strong coffee is a good coffee’. Surely, that is plausible for this example. However, it seems to me that this implicature mainly has to do with the meaning of the verb to want, with which the speech act of a wish is indicated. Yet, if we take the example I make the tuna salad, and you make the salad-salad, I can’t see any (positive or negative) appraisal/evaluative implicature. Conversational implicatures have the general property to be cancellable, i.e. they represent meaning aspects that do not arise (nearly) automatically. Accordingly, we may cancel the implicature by saying I want a coffee coffee, not because I think strong coffee is good coffee, but just because I desperately have to get awake.

A last problem with the context-dependency claim is the more general question whether one actually can control for ‘context-freeness’ of an interpretation. This is a non-trivial problem for every experimental study on the ‘context-free’ meaning of linguistic expressions, and it is not merely a methodological question. In fact, it is very hard to control for ‘imagined’ contexts, i.e. for representations of typical usage situations of certain expressions in speakers’ minds. In that connection, we may find that it is not really clear what counts as a ‘context’ (cf. Finkbeiner et al. 2012), and how we should deal with the phenomenon of stored contextual knowledge. The general question is how we may reliably distinguish between semantic knowledge in a narrow sense, conceptual knowledge, and actual contextual knowledge. I will come back to this question below.

4.3 An indexical view

Weiskopf (2007) argues against the two accounts presented above and suggests instead that

the linguistic meaning of CNs [compound nominals] contains a phonologically unrealized open variable or otherwise indexical expression that picks out the
relation among their constituents, and this relation is filled in by pragmatic mechanisms that draw on features of the context of utterance. (Weiskopf 2007: 175)

That is, the variable (the relation ‘R*’) behaves like a context-sensitive expression and makes different contributions to the utterance content in different contexts. For example, in the compound traffic lights, the semantic meaning may be specified as an indexical relation R* between the elements traffic and lights. In a normal context, the relation ‘[lights] designed and used for regulating [traffic]’ will be selected (Weiskopf 2007: 184). In other contexts, other relations might be applied (e.g. ‘lights of cars illuminating the road’). Thus, on this account, the variability in the meaning of CNs is located in the utterance content (what is said in particular utterances of CN-containing sentences), ‘rather than in the linguistic meaning of the CNs themselves.’ That is, only in a certain context, a specific relation can be assigned to the indexical, making the content of the utterance complete.

More specifically, Weiskopf (2007: 175–178) proposes three semantic rules of compound nominal interpretation, all of which contain ‘R*’ as an indexical, context-sensitive expression. Rule I captures compounds with which a relation between an individual N2 and the class of N1s (or between the class of N2s and the class of N1s) is asserted (e.g. dog house, ‘house of a dog’). Rule II captures compounds that express a quantified relation between N2 and N1, i.e., a certain quantity of something denoted by N1 is implied (e.g. hamburger plate, ‘a plate with some hamburgers’). Rule III captures compounds that express habitual, regular, or recurrent relations that obtain between N2 and N1 (e.g. garbage man, ‘a man that regularly takes away the garbage’). This set of relations is different from the set of relations that Levi (1978) and others have proposed in that it is guided by potential logical-semantic structures of compounds, excluding any conceptually motivated relations.

Trying to apply this approach to the case of ICCs, as a subclass of nominal compounds, a heterogeneous picture arises. On the one hand, Weiskopf’s approach can elegantly account for both the potentiality aspect of ICCs – i.e., it provides a minimal semantic model – and for the context-dependency of ICCs – i.e., it accounts for the context-variability of meaning. Furthermore, this analysis does not face the problem of seemingly unrestricted enrichment processes, as does the contextualist account, because in the indexicalist view, contextual enrichment is anchored in an indexical expression in logical structure (cf. Finkbeiner & Meibauer, to appear).

On the other hand, it is questionable whether Weiskopf’s account adequately models the resources speakers draw on when interpreting compounds. If one assumes that compound meaning is exhaustively described by the three relations mentioned above, and everything else speakers add when interpreting them is ‘contextual’, then one seems to miss a great deal of stored knowledge that speakers possess about ‘strongly available’ or ‘preferred’ readings of N+N compounds (e.g., that a tooth brush normally is a brush FOR teeth, not a brush that HAS teeth), knowledge that is crucial to select the appropriate relation. Weiskopf claims that the intuition that there are such ‘strongly available’ relations is merely due to the fact that ‘they are most
common or most frequently sensible values of $R^*$ in context’ (Weiskopf 2007: 180), rather than being conventional meanings that are selected from a set of possible disambiguations. However, it is not plausible to me why speakers would need context to decide upon the default meaning of tooth brush or traffic lights. These compounds, it seems, have meanings that are conventional, i.e. stored in the lexicon.

Let us try to apply the indexical approach to ICCs. Surely, certain potential meanings of ICCs may be captured in this model. For example, for an ICC such as Winter-Winter, in one context, rule I might be applied, and we may select the (determinative) relation ‘[winter] during which Mr. [Winter] did something remarkable’. However, in a standard usage context, it is likely that Winter-Winter will be interpreted reduplicatively (e.g. as PROT). Taking a closer look at the PROT relation, we find that it basically is a meta-linguistic relation (cf. Hohenhaus 2004: 315) which we may paraphrase as follows: ‘A winter-winter is a winter that corresponds perfectly to what one typically means by the linguistic expression “winter”’. So, in contrast to the relation ‘$R^*$’ in dissimilar N+N compounds (and in determinative readings of ICCs), in PROT readings of ICCs, the relation strictly is not between two individuals or classes of individuals (between two nouns), but between a noun and something that is said about the usage of this noun.17 This means that none of Weiskopf’s relations is applicable, because he does not provide any meta-linguistic category. This poses a serious problem for the view that the semantic structure of ICCs is that of an indexical relation between two linguistic items. At the same time, the observation that ICCs are meta-linguistic in nature nicely explains our intuition that the meaning of ICCs, in their readings as REAL or PROT, differs from standard determinative relations, in that it is not a relation between two lexical meanings, but rather an operation on one single lexical item.

4.4 An alternative view

Based on the discussion in the previous sections, I would like to propose a different view on ICCs in German. First of all, I claim that the process of ICC formation is a productive compounding process in German. This means that native speakers of German have systematically available stored knowledge about this process which they make use of in language comprehension and language production. This knowledge consists of knowledge about the word formation process as such, including some kind of semantic interpretation schema. More importantly, this knowledge also comprises stored conceptual, encyclopedic, and situational-pragmatic knowledge (cf. Meyer 1993). That is, speakers will be able, because of their pragmatic experience, to imagine typical situations in which ICCs may be used.18 Altogether, this view predicts that ICCs are interpretable ‘in isolation’. Yet, the notion of isolation here merely refers to the experimental setting, but not to the minds of speakers.

In order to test these claims, a pilot experiment on German ICC comprehension was carried out, in which native speakers of German were asked to provide paraphrases for ICCs presented in isolation. The aim of this test was to find out whether ICC formation is an existent and productive process in German, that is, whether speakers of
German are able to properly interpret ICCs, and if yes, how they preferably interpret ICCs. The main goal of this investigation was to learn more about how speakers of German deal with the phenomenon of ICC formation in general. As a future task, additional experiments have to be carried out on the comprehension of ICCs in context, and the results from these experiments have to be related to those of the ‘isolated’ test.

5. Context-free comprehension of ICCs: A pilot study

In accordance with the assumptions made above, the following hypotheses about the context-free comprehension of ICCs in German were set up.

H1. The majority of subjects will be able to assign plausible interpretations to ICCs within the range of reduplicative and determinative readings. (This hypothesis is based on the claim that ICC formation is a productive pattern of compounding in German.)

H2. PROT and REAL will be selected most frequently. (This hypothesis is based on claims in the literature (e.g. Hohenhaus 2004; Ghomeshi et al. 2004) that in actual use, the prototype pattern is the default interpretation. Assuming stored contextual knowledge, this should be reflected in the experiment as well.)

H3. The relations chosen will vary according to the conceptual semantics of the base noun. (This hypothesis is based on results from research on novel compound comprehension (e.g. Meyer 1993; Gagné & Spalding 2005). For example, base nouns denoting physical objects may preferably receive locative interpretations, or base nouns denoting materials may preferably receive a material reading.)

5.1 Method

Subjects and task. Subjects were 40 students, all native speakers of German, enrolled in German linguistics courses at the Johannes Gutenberg University Mainz. Their task was to paraphrase the meanings of a sample of 16 German ICCs that were presented in isolation.

Materials. The items used consisted of 16 ICCs and four dissimilar N+N distractor items. The base nouns were chosen such that a broad range of different conceptual categories, both abstract and concrete concepts, and both concepts of higher and lower categorical levels, were covered, allowing for different kinds of potential relations. Subsets of the items had been used previously as experimental items (Günther 1981) or were attested ad hoc examples from the literature (Erben 1981; Ortner 1991; Hohenhaus 1998). The items included nouns denoting animate objects (dog, man, tiger), inanimate objects (car, chair, book, broom), temporal objects (winter, music), located/inanimate objects (house, grass, flood), materials/inanimate objects (stone, wood), and abstract objects (love, time). All of the 16 nouns allowed for combination
without linking elements, a criterion that was applied to avoid a bias towards determinative readings, which are triggered by explicit linking elements. Concerning spelling, the hyphenated form was chosen, as this is regarded as the unmarked case for ICCs.

Procedure. Subjects performed a written task. They were handed out a small booklet containing one ICC (or distractor item) on the top of each page. The ordering of the items was random and different for each participant. Subjects were asked to write down for each item one meaning paraphrase that they felt to be a suitable one, while being advised that different meanings could be possible, and that sometimes they might not be able to come up with a paraphrase. In this case, they should just move on to the next item.

Coding of paraphrases. The paraphrases were coded according to the following coding scheme.

A. Determinative readings

1. MAT (‘X is made of X’), e.g. Stein-Stein: ‘Stein aus Naturstein’ [a stone made of natural stone], Auto-Auto: ‘Auto, das aus kleinen Autos besteht’ [a car made of small cars].
2. FOR (‘X is for X’), e.g. Auto-Auto: ‘ein Auto, das andere Autos transportiert’ [a car to transport other cars], Besen-Besen: ‘ein Besen, mit dem man den Besen fegt’ [a broom to sweep the broom].
3. LOC (‘X is located at/on/... X’), e.g. Buch-Buch: ‘der Klappentext im Buch’ [the blurb in a book], Haus-Haus: ‘Haus in dem noch ein Haus ist’ [a house inside a house].
4. TEMP (‘X happens during/after/... X’), e.g. Winter-Winter: ‘eine Jahreszeit nach dem eigentlichen Winter, welche besonders kalt ist’ [a season after the winter, which is especially cold], Zeit-Zeit: ‘ein Zeitpunkt innerhalb einer größeren Zeitspanne’ [a point in time within some larger time span].
5. HAS (‘X has X’), e.g. Hund-Hund: ‘der Hund eines Hundes’ [the dog of a dog], Mann-Mann: ‘Freund von meinem Mann’ [friend of my husband].
6. ABOUT (‘X is about X’), e.g. Buch-Buch: ‘ein Buch über ein Buch’ [a book about a book], Musik-Musik: ‘Musik über Musik’ [music about music].

B. Reduplicative readings

7. REAL (‘a real/true/normal X’), e.g. Besen-Besen: ‘Besen, der ein richtiger, normaler Besen ist (kein Spielbesen)’ [broom that is a proper, normal broom, no toy broom], Holz-Holz: ‘echtes Holz, kein Kunstholz’ [real wood, no artificial wood]. A subtype of REAL are disambiguations of homonymous lexemes, such as Gras-Gras: ‘Rasen, keine Drogen’ [lawn, no drugs], or, the other way round, Gras-Gras: ‘Das Gras zum Rauchen. Definitiv nicht grünes Wiesen-Gras.’ [grass to smoke, definitely not green grass on the meadow].
(8) PROT (‘a very p X’, where p stands for a prototypical property of the category X), e.g. Winter-Winter: ‘ein extrem kalter Winter’ [an extremely cold winter], Mann-Mann: ‘ein sehr maskuliner Mann’ [a very masculine man].

(9) DUAL (‘two X’), e.g. Haus-Haus: ‘Doppelhaus’ [duplex house], Stein-Stein: ‘zwei miteinander verbundene Steine, etwa durch Beton’ [two adherent stones, glued to each other by concrete].

(10) PLUR (‘a plurality/high quantity of X’), e.g. Fluss-Fluss: ‘ein Fluss, der sich in viele Flüsse aufspaltet (ein Delta)’ [a flood delta], Zeit-Zeit: ‘ganz viel Zeit’ [a lot of time].

(11) DIMIN (‘a little X’), e.g. Auto-Auto: ‘ein kleines Auto (Babysprache)’ [a little car, baby-talk], Tiger-Tiger: ‘Babytiger’ [baby tiger].

(12) FAKE (‘not a real X, an imitation of X’), e.g. Gras-Gras ‘künstliches Gras’ [artificial grass], Liebe-Liebe: ‘gespielte, nicht echte Liebe’ [pretended love].

C. Other readings

(13) OTHER (correct answer which does not fit into one of the other classes), e.g. Gras-Gras: ‘eine bestimmte Grassorte, deren Züchter oder dazugehörige Firma ‘Gras’ heißen’ [a sort of grass whose cultivator or corresponding company is called ‘Grass’]20, Liebe-Liebe: ‘Sex’ [sex].

D. not applicable answer/no answer

(14) NOT APPLICABLE (incorrect or non-interpretable answer), e.g. Liebe-Liebe: ‘Gibt es eine Steigerung von Liebe?’ [Can love be augmented?], Mann-Mann: ‘Mann oh Mann’ [this is a colloquial interjection in German, which however has nothing to do with the compound].

(15) NO ANSWER. The classes NOT APPLICABLE and NO ANSWER were collapsed for the analysis.

5.2 Results

Table 1 shows the overall frequency of the different relations. Each of the 40 participants chose one relation per item (n = 16), which amounts to a total of 640 answers.

Apparently, NO ANSWER/NOT APPLICABLE was selected most frequently. However, one has to keep in mind that the NO ANSWER class is in opposition not to each of the other single relations, but rather to a class ‘answer’, under which all of the remaining categories fall. The total frequency of this ‘answer’ class is 390, which corresponds to roughly 60 percent. It becomes clear, thus, that in the majority of cases, subjects did provide suitable paraphrases for ICCs.

In order to find out more about whether there were preferences for certain relations, a one-factor Chi-square test was carried out on the data which compared the expected
and the observed frequencies of all relations in the ‘answer’ class, i.e. of all relations except NO ANSWER/NOT APPLICABLE. The Chi-square test shows that the differences between observed and expected frequencies of relations are statistically significant ($\chi^2 = 826.2$, $df = 12$, $p < 0.001$). From table 2, one may conclude that subjects preferred PROT over the other relations.

Table 2 shows that PROT was roughly twice as frequent as REAL. Compared to PROT and REAL, the other relations were chosen with relatively low frequency. In order to find out if the difference in the frequencies of PROT and REAL was significant, a paired t-test was applied to the data, where the mean score for REAL and PROT were compared for each participant ($n = 40$). The test statistics show that the mean scores for PROT are significantly higher than the mean scores for REAL ($t(39) = -3.201; p = 0.003$).

Table 3 compares the absolute frequencies of reduplicative vs. determinative readings. The table reveals that reduplicative readings are chosen almost four times as often as determinative readings, and 1.2 times as often as NO ANSWER/NOT APPLICABLE.

Figure 1 shows the distribution of relations for each item. From the graph, one can observe several differences between items.

First of all, there are only two items for which more than 50 percent of the subjects chose the NO ANSWER/NOT APPLICABLE category, namely Auto-Auto (‘car car’) and Liebe-Liebe (‘love love’). Second, it is striking that many determinative relations are highly restricted to certain subsets of items. For example, LOC is restricted to Buch-Buch (‘book book’), Gras-Gras (‘grass grass’), Haus-Haus (‘house house’), Stein-Stein (‘stone stone’), and Stuhl-Stuhl (‘chair chair’) (with one single selection for

<table>
<thead>
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<th>relation</th>
<th>absolute frequency</th>
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<tbody>
<tr>
<td>REAL</td>
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</tr>
<tr>
<td>PROT</td>
<td>165</td>
</tr>
<tr>
<td>DUAL</td>
<td>22</td>
</tr>
<tr>
<td>DIM</td>
<td>11</td>
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<tr>
<td>FAKE</td>
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<td>PLUR</td>
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<tr>
<td>LOC</td>
<td>25</td>
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<td>FOR</td>
<td>24</td>
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<td>ABOUT</td>
<td>11</td>
</tr>
<tr>
<td>MAT</td>
<td>7</td>
</tr>
<tr>
<td>TEMP</td>
<td>5</td>
</tr>
<tr>
<td>HAS</td>
<td>5</td>
</tr>
<tr>
<td>OTHER</td>
<td>12</td>
</tr>
<tr>
<td>NO ANSWER/NOT APPLICABLE</td>
<td>250</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>640</strong></td>
</tr>
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</table>
**Table 2:** Expected and observed frequencies of relations.

<table>
<thead>
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<th>Relation</th>
<th>Observed</th>
<th>Expected</th>
<th>Residuum</th>
</tr>
</thead>
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<td>83</td>
<td>30.0</td>
<td>53.0</td>
</tr>
<tr>
<td>PROT</td>
<td>165</td>
<td>30.0</td>
<td>135.0</td>
</tr>
<tr>
<td>DUAL</td>
<td>22</td>
<td>30.0</td>
<td>−8.0</td>
</tr>
<tr>
<td>DIMIN</td>
<td>11</td>
<td>30.0</td>
<td>−19.0</td>
</tr>
<tr>
<td>FAKE</td>
<td>9</td>
<td>30.0</td>
<td>−21.0</td>
</tr>
<tr>
<td>PLUR</td>
<td>11</td>
<td>30.0</td>
<td>−19.0</td>
</tr>
<tr>
<td>LOC</td>
<td>25</td>
<td>30.0</td>
<td>−5.0</td>
</tr>
<tr>
<td>FOR</td>
<td>24</td>
<td>30.0</td>
<td>−6.0</td>
</tr>
<tr>
<td>ABOUT</td>
<td>11</td>
<td>30.0</td>
<td>−19.0</td>
</tr>
<tr>
<td>MAT</td>
<td>7</td>
<td>30.0</td>
<td>−23.0</td>
</tr>
<tr>
<td>TEMP</td>
<td>5</td>
<td>30.0</td>
<td>−25.0</td>
</tr>
<tr>
<td>HAS</td>
<td>5</td>
<td>30.0</td>
<td>−25.0</td>
</tr>
<tr>
<td>OTHER</td>
<td>12</td>
<td>30.0</td>
<td>−18.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>390</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 3:** Frequencies of types of relations (determinative vs. reduplicative).

<table>
<thead>
<tr>
<th>Relation</th>
<th>Determinative</th>
<th>Reduplicative</th>
<th>Other readings</th>
<th>No answer/not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOC</td>
<td>25</td>
<td>REAL 83</td>
<td>OTHER 12</td>
<td>NO ANSWER 207</td>
</tr>
<tr>
<td>FOR</td>
<td>24</td>
<td>PROT 165</td>
<td></td>
<td>NOT APPLICABLE 43</td>
</tr>
<tr>
<td>ABOUT</td>
<td>11</td>
<td>DUAL 22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT</td>
<td>7</td>
<td>DIMIN 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEMP</td>
<td>5</td>
<td>FAKE 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAS</td>
<td>5</td>
<td>PLUR 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77</strong></td>
<td><strong>301</strong></td>
<td><strong>12</strong></td>
<td><strong>250</strong></td>
</tr>
</tbody>
</table>

Zeit-Zeit, ‘time time’), TEMP is restricted to Musik-Musik (‘music music’), Winter-Winter (‘winter winter’), and Zeit-Zeit (‘time time’), and ABOUT is restricted to Musik-Musik and Buch-Buch. In contrast, PROT and REAL are selected for all items (except Zeit-Zeit). Of the reduplicative relations, DUAL was overused for Fluss-Fluss (‘river river’) in the reading ‘river that is splitting up into two rivers’ or ‘river flowing into another river’. FAKE, PLUR, and DIM were generally rather infrequent. Third, looking at the most frequently selected relation, PROT, it is striking that this relation exhibits a rather unequal distribution over items. In particular, the items Winter-Winter and Mann-Mann (‘man man’), and, to a lesser extent, Hund-Hund (‘dog dog’), stand out compared to the other items. To find out if the observed differences between items with respect to PROT were statistically significant, a repeated-measures ANOVA was carried out on the data. Results showed that differences between items were unlikely to have arisen by sampling error (F = 9.74, df = 10.06; p < 0.001). One pair-wise
comparison was carried out, between Winter-Winter and Auto-Auto. Auto-Auto was chosen because it is illustrative for items with rather average PROT frequency. Test statistics show that participants assigned PROT significantly more frequently to Winter-Winter than to Auto-Auto \((t(39) = -8.51, p < 0.001)\).

5.3 Discussion

The first hypothesis H1 was that the majority of subjects would be able to assign plausible interpretations to ICCs within the range of reduplicative and determinative readings. This hypothesis was confirmed by the results. Participants assigned reduplicative (PROT, REAL, DUAL, DIMIN, PLUR, FAKE) and determinative (LOC, MAT, FOR, TEMP, ABOUT, HAS) relations to ICCs. Thereby, the determinative range of ICCs was restricted compared to the list of relations of canonical compounds previously set up in the linguistics literature. There were, e.g., neither instances of CAUSE (sunburn) or FROM (seafood) relations. In general, the total frequency of determinative relations was relatively low. Both observations support the assumption that in the unmarked case, subjects comprehend ICCs as instances of reduplicative, not of determinative structures.

In roughly 40 percent of the cases, subjects did not select any relation, or they selected a relation that was not applicable. The relatively high percentage of NO...
ANSWER/NOT APPLICABLE indicates that subjects were not always sure how to interpret ICCs. This result can be related to the fact that ICCs are relatively infrequent in German because of being bound to highly specific conversational situations. As there were no hints about actual conversational situations in the experiment, the task was even more difficult. Nevertheless, despite this difficulty, in the majority of cases subjects indeed were able to select plausible relations. It is therefore justifiable to say that native speakers of German in general have available systematic knowledge about the interpretation of this pattern.

The second hypothesis H2 was that PROT and REAL would be selected most frequently. This was confirmed by the results, which revealed that PROT was by far the most frequent relation, followed by REAL. The overall preference for PROT/REAL can be explained by the assumption that these relations are the most frequent in actual contexts of use, and that speakers of German have available stored knowledge about salient ICC interpretations in standard contexts. A potential explanation for the heavier use of PROT compared to REAL might be found in terms of markedness. In the PROT interpretation (‘a very p X’), an ICC denotes an entity that is, in some sense, ‘deviant’ from a norm, in that it exceeds the norm (‘very strong coffee’ is stronger than normal coffee). In contrast, in the REAL interpretation (‘a real X’), the ICC denotes an entity which itself is regarded as the norm or the unmarked category (‘real coffee’ is just normal coffee). According to Stolz et al. (2011: 197–199), the expression of markedness is the universally preferred effect of reduplication, while the expression of a ‘norm case’ is less wide-spread. Thus, the overuse of PROT meets the general prediction from typology.

The third hypothesis H3 was that the relations chosen would vary dependent on the semantics of the base noun. The findings confirm that items indeed have a strong influence on the choice of relation. Notably, there were significant differences between items regarding PROT. Subjects assigned this relation most frequently to Winter-Winter and Mann-Mann. The relatively strong affinity of Winter-Winter towards PROT might be explained by the assumption that our conceptualization of a prototypical winter is relatively clear-cut: It is cold, there is snow, and it lasts for many months. It is easy to intensify one of those prototypical parameters, ending up with a PROT reading. The item Mann-Mann was paraphrased by most subjects as ‘very masculine man’. Also in this case, we have available rather uniform stereotypical knowledge about masculinity. In contrast, it might be less clear-cut what, for instance, a prototypical car is like, because this category is much more diverse. For example, big size is not prototypical for all kinds of cars. Therefore, a paraphrase like ‘a very big car’ for Auto-Auto, which was given by one subject, is not straightforward.

It is striking that determinative relations, in particular, were highly restricted to certain subsets of items, whereas PROT and REAL were selected across items (except Zeit-Zeit), albeit to a varying degree. For one, this has to do with the generally low frequency of determinative relations. But this result also suggests that the influence of noun semantics might be more important for determinative than for reduplicative readings. In a way, semantic operations such as intensifying are less dependent on particular nouns, compared to operations such as constituting a material or temporal
relation, which heavily depend on the meanings of particular nouns. Therefore, a relation such as PROT is applicable more universally on ICCs than, e.g., MAT or TEMP.

The only two items that were assigned NO ANSWER/NOT APPLICABLE by more than 50 per cent of the participants were Auto-Auto and Liebe-Liebe. In the case of Auto-Auto, several subjects chose to paraphrase ‘automatic car’. This paraphrase was coded as not applicable, as it makes reference to auto in its adjectival reading ‘automatic’. Liebe-Liebe is an instance of an abstract noun. Abstract categories seem harder in general to be assigned the otherwise preferred PROT relation. (It is not without reason that research in prototype semantics heavily focuses on concrete categories such as birds and cups.) In line with that, the (only) item to which PROT was not assigned at all was an abstract noun (Zeit-Zeit).

6. Conclusion

There are opposite assumptions in the theoretical literature about the meaning constitution of identical constituent compounds (ICCs). Some researchers highlight the heavy context-dependency of ICCs, where the most extreme opinion is that ICCs cannot be assigned a meaning at all in isolation. Others stick to the assumption that ICCs are associated with an abstract prototype reading (which may get further specified in context). The fact that much of the research literature on ICCs concentrates on the question of context-dependency certainly is due to the widely held assumption that ICCs – at least in languages such as English and German – usually do not exist as established items in the lexicon, but are ad hoc word formations which (only) occur in actual performance. However, even if most ICCs may never enter the lexicon, they are possible words in performance. As such, they must be formed according to a certain word formation pattern, which in turn must be part of the morphological component of the language faculty. The present study was intended to take a first explorative step to find out more about speaker’s knowledge about this word formation pattern.

Focusing on ICC formation in German, it was claimed that ICCs are not, in principle, different from canonical N+N compounds with respect to context-dependency. It was argued that the meaning constitution of ICCs, just like the meaning constitution of canonical N+N compounds, builds on both semantic and pragmatic aspects. Some recent theoretical approaches to compound nominals were discussed, with a focus on Weiskopf’s (2007) indexical account. This account models the semantics of compounds as an indexical relation ‘R*’ that has to be saturated in context by pragmatic enrichment. Contra this view, it was argued that a concept of ‘semantics’ as a set of minimal logical-semantic relations cannot capture the intuition that speakers have available very complex knowledge about the meaning of compounds, including ICCs. A large part of this knowledge, it seems, is stored conceptual and experiential knowledge that can neither be reduced to a narrow semantics nor is fully captured by assuming contextual enrichment of actual utterances. Furthermore, it was argued that Weiskopf’s approach cannot capture the
typical interpretational patterns for ICCs. In particular, the logical-semantic relations in this approach do not provide any interpretational schema for meta-linguistic relations such as PROT and REAL, which are default interpretations of ICCs.

On the basis of the theoretical considerations, it was predicted that ICCs should be systematically interpretable, i.e., that ICCs should be assigned a range of reduplicative and determinative readings. Thereby, it was expected that reduplicative readings, in particular PROT and REAL, would be preferred, and that the conceptual semantics of the base nouns would have an influence on the choice of relation. In order to test these predictions, a pilot experimental study was carried out with 40 native speakers of German on the context-free comprehension of ICCs. Thereby, it was pointed out that ‘context-free’ (or ‘isolated’) is merely a methodological notion, referring to a certain way of presenting items. We do not know, however, to what extent subjects make use of imagined contextual knowledge when interpreting ICCs. The findings clearly indicate that ICCs are systematically interpretable ‘in isolation’. The majority of subjects assigned plausible interpretations to ICCs within a range of reduplicative and determinative readings. Of these readings, the PROT reading (e.g. *winter winter*: ‘very cold winter’) was selected most frequently, followed by REAL (e.g. *wood wood*: ‘real wood, not artificial wood’). Moreover, the results confirmed the basic insight that the conceptual semantics of the items (base nouns) influence the choice of relation. Notably, there were significant differences between items regarding PROT. Overall, the results indicate that ICC formation is an existent and productive process in German, contrary to some researchers who explicitly exclude this process from the German language.

More generally, it became evident that there are still many open questions regarding the semantics and pragmatics of nominal compounds, despite the rich research literature on the topic. One central question is how to adequately distinguish between ‘semantic’, ‘conceptual’, and ‘contextual’ knowledge. Another question is how exactly pragmatic enrichment processes work in the interpretation of compounds and how they are constrained. These questions remain to be answered both for canonical compounds and for ICCs. A major task for the future is to empirically investigate the claims from theoretical research on compound semantics and pragmatics. This study was intended as a little step into this direction.

Notes

1. I am grateful to my reviewers for their questions and comments that helped me reshape the paper in important ways. Many thanks also to Jochen Geilfuß-Wolfgang and Jörg Meibauer for their comments on earlier versions of this paper, and to Ulrike Freywald and Gerrit Kentner for very interesting discussions. All remaining errors are my own.

2. In this paper, ‘ICC’ is used as an acronym for both the process (‘identical constituent compounding’) and the product (‘identical constituent compound’). Alternatively, to explicitly refer to the process, the term ‘ICC formation’ is used.

3. Huang (2009: 134) lists British and American English, Afrikaans, Dyari, Dyirbal, Italian, French, Quebec French, Modern Greek, KiNande, Vulgar Latin, Persian, Russian, Spanish, Tzeltal, Tzotzil, and Western Desert. To this list, he adds German, with reference
to Hohenhaus (2004) and Mau (2002). Actually, the first to detect ICC formation in German was Hohenhaus (1996); Mau (2002) mainly cites examples from Hohenhaus (1996). In Hohenhaus (2004), only one rather atypical German example is provided, namely Film-Film, a lexicalized example invented by the TV channel Sat 1 for commercial purposes.

4. Ghomeshi et al. (2004: 312-313) base their judgment on a German translation of the reduplicated adjective rich-rich, with the original English sentence being They are rich, of course; obscenely rich by the world’s standards; but not RICH-rich, not New York City rich (Michael Cunningham: The Hours). In the German translation of this novel, RICH-rich is not translated by reich-reich, but by richtig reich (‘really rich’, ‘very rich’), cf. . . . aber nicht richtig reich, nicht nach den Maßstäben von New York City. Obviously, though, one translated example cannot count as sufficient evidence against the claim that ICC formation does exist in German. Generally, one has to take into account the possibility that the process has become increasingly popular in German only within the last decade.

5. Note, however, that the notion of ‘self-compounding’ is not necessarily equivalent to what I call ICC formation. Below, I will point out some central differences between self-compounds and ICCs.

6. Generally, the typological literature conceives of German as a total reduplication avoider (Rubino 2005, Stolz et al. 2011). However, as Stolz (2008) points out, German does exhibit syndetic (non-adjacent) reduplication patterns, as illustrated by examples such as nach und nach (‘bit by bit’). This is also shown by Finkbeiner (2012), who investigates in more detail the German total reduplication pattern X und X (‘X and X’); cf. also Finkbeiner (to appear) on N hin, N her (‘N hither, N thither’), a pattern similar to English X or no X.

7. Thanks to one of my reviewers for pointing out this to me. Interestingly, the only German example provided in Hohenhaus (2004) is, in fact, a lexicalized example, namely Film-Film (see endnote 3).

8. Admittedly, phrases only occur in modifier position, i.e. as first constituents in phrasal compounds. In cases such as Pflänzlein-rühr-mich-nicht-an (‘plantlet-don’t-touch-me’, roughly ‘shy person’, ‘shrinking violet’), where the phrasal constituent is in second position, the phrase functions as the modifier as well, as this is an exceptional case of a left-headed compound.

9. There are some nouns that have more than one default compound stem form, e.g. Männ-er.magazin (‘man-LE.magazine’), Mann-es.kraft (‘man-LE.power’), Mann-s.person (‘man-LE.person’); in these cases, however, it is only one of these forms which is productive. I am very grateful to one of my reviewers for valuable remarks about the role of linking elements in German compounds.

10. There are also spellings with internal capital letter (FilmFilm, cf. Freywald 2012). In total, of Freywald’s 14 nominal examples, seven exhibit hyphenated spelling, one exhibits a spelling with internal capital letter, and six exhibit compound spelling.

11. Hyphenated spelling is also the default spelling for co-compounds (Dichter-Komponist ‘poet-composer’, grün-blau ‘green-blue’) and phrasal compounds. On the one hand, these compounds may be regarded as ‘marginal’ compound classes in German; on the other hand, this fact may be taken as showing that compounding in German is a multi-faceted category comprising a broad range of phenomena, including ICC formation.

12. Analogously, e.g., a prefix such as be- (e.g. be-arbeiten: vx-work, ‘work on sth.’) does not contribute a lexical meaning, but indicates a procedure, namely, to make a transitive verb out of an intransitive verb.
13. A reviewer has a point in remarking that the term ICC might not be fully appropriate for the subject under investigation because of the differences between (true) ICCs and (determinative) self-compounds, where the latter also consist of identical constituents. I have decided to stick to the term ICC anyway because it is an established term for the phenomenon under discussion. I hope to have made clear that there are important differences between the two classes, and that the phenomenon I am interested in primarily are ICCs, not self-compounds.

14. Moreover, the differences between self-compounds and ICCs are reflected in register. Whereas self-compounds clearly are not colloquial, but belong to the sphere of legal language (Erben 1981: 39), also being reminiscent of expressions from the Bible (‘N of the N’, cf. *das Buch der Bücher*, ‘the book of the books’), ICCs are colloquial expressions. This is indicated, e.g., by the fact that the majority of the English examples discussed in Ghomeshi et al. (2004) and Hohenhaus (2004) stem from dialogues on television soaps; also Freywald’s (2012) German examples are taken from sources of colloquial speech.

15. An apparent counter-example is Günther’s (1981) novel compound *Frauenfrau* (woman-l.e.woman). He reports not only a range of determinative readings, among them ‘woman taking care of other women’ and ‘woman interacting a lot with women’, but also, unintuitively, a range of reduplicative readings for this compound, such as ‘very feminine woman’, ‘prototypical woman’, and ‘superwoman’ (Günther 1981: 280, my translation). However, as both reviewers point out, this is a rather dubious example. It may be that semantic interpretation was different from today when Günther made his experiment (on or before 1981). I share the intuition with the reviewers that the linking element strongly biases the interpretation towards a determinative reading.

16. This example is said to stem from the times of World War II, where real coffee was a rare commodity, cf. Stolz et al. (2011: 198).

17. The same is true for the reduplicative reading REAL, e.g., ‘a [tiger] that is nothing more and nothing less than what is referred to by the common noun [‘tiger’]’. In contrast, DUAL/PLURAL readings are additive, not meta-linguistic, e.g. ‘a [tiger] and another/several other [tiger(s)]’.

18. A reviewer points out that another important source for speakers in interpreting novel N+N compounds is the so-called family size of this compound (e.g. Gagné & Spalding 2005), that is, knowledge about the relations found in existing compounds. For example, the constituent *mountain*, as modifier, is in most existing compounds related to the second constituent by a locative relation (e.g. *mountain bike*, *mountain goat*), and speakers use this kind of relational knowledge when encountering new compounds with the same modifier constituent (e.g. *mountain apple*). This knowledge certainly can play a role also in the interpretation of novel ICCs. However, I am not sure in how far this knowledge helps speakers to detect reduplicative readings of ICCs. As pointed out above, the modifier constituent in (reduplicative) ICCs does not contribute its lexical meaning in the same way as does the modifier constituent in canonical N+N compounds. That is, family size knowledge may explain that locative readings of *mountain mountain* (e.g. ‘mountain situated on a mountain’) are preferred to other potential determinative readings, but it does not guide speakers to the interpretation of *mountain mountain* as ‘a very high mountain’, or the like.

19. A reviewer points out that five of the 16 items, namely *Hund, Mann, Buch, Haus*, and *Liebe* are not well-chosen because their default compound stem forms contain linking elements (*Hunde-, Männer-, Bücher-, Häuser-, Liebes-*). He or she writes that ‘if explicit linking
elements lead to a bias towards determinative readings’ (a view that I support), ‘then the nominal lexemes chosen should be ones that never have a linking element, neither in determinative compounds nor in compounds of other semantic quality.’ I see the point and I agree; the very fact that, e.g., Liebe-Liebe does allow for a counterpart Liebesliebe, while, e.g., Tiger-Tiger does not allow for a counterpart with linking element, may have a biasing effect. In future experiments, I will have to adjust this problem.

20. This example clearly exhibits a determinative reading; however, it does not fit into any of the six determinative classes established above. To establish a class, I think one needs more than only one example.

21. The expected frequency is calculated by dividing the total number of answers (390) by the number of different relations (13), i.e. $390/13 = 30$. If there were no preferences for any relations, every relation should receive the same number of answers, namely 30.

References


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