

# Fatal attraction: inheritance and collocation in the *ihjel*-construction

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The purpose of this paper is two-fold. Firstly, it presents an argument for usage-based inheritance models over complete inheritance models in construction grammar. It is argued that, with the principle of inductive language learning as their foundation, usage-based inheritance models allow for redundancies and incongruities in construction networks which enables linguists to take into account details of language use, which would otherwise not be facilitated in complete inheritance models. Secondly, making use of the method of collocational analysis, the article offers a corpus-based description of the use of the Danish *ihjel*-construction which accounts for patterns of attraction of construction-verb attraction, patterns of productivity, and various types of subconstructions, including item- and item-class-based ones and metaphorical extensions. The description of the *ihjel*-construction should also illustrate the superiority of usage-based inheritance models over complete inheritance models in construction grammar-based language description.

## 1. Introduction

The Danish adverbial particle *ihjel* appears to be deceptively simple, which is probably why it has received extensive attention by neither syntacticians nor lexicologists, and in-depth analyses and descriptions are few and far between.

Its formal simplicity is striking. It seems to exclusively enter into two-word phrasal verb constructions. However, while formally simple, it is much more complicated functionally, as it covers a wide range of different functions. In some cases, like *brænde ihjel*<sup>1</sup> or *tæve ihjel*, the verb-plus-*ihjel* constellation quite literally expresses a situation in which a specific action specified by the verb – in this case, the actions of setting someone afire and of beating someone severely up – results in the death of this someone. But in other cases, as in the case of *slå ihjel*,

the constellation does not predicate any specific action but rather just the killing of someone in general. There are also cases in which *ihjel* combines with verbs that cannot possibly result in anyone's death as in *kede ihjel* or *skygge ihjel*. In some cases, despite all logical improbabilities, the instance will refer to a literal death, but in other instances to a metaphorical one. Moreover, *ihjel* does not indiscriminately appear with any verb at any time. If one were to observe *ihjel* in use, one would find that certain verbs and verb types are much more frequent with *ihjel* than others, and that there seem to be certain patterns in the relation of attraction and repulsion between verbs and *ihjel*. A question that will doubtlessly arise from such an observation is whether there is any form of item correlation between verb attraction and communicative functions of *ihjel*.

Another question is how to best describe this phenomenon. Since *ihjel* conventionally enters into phrasal verb-like constellations in present-day Danish, and rarely appears on its own, a reasonable assumption, in a functional-cognitivist perspective, would be that the verb-plus-*ihjel* constellation is a construction and, consequently, it would be appropriate to describe it in a construction grammar framework. But that would not be enough, one would also have to consider how to account for the relations between the construction and its instances in discourse; that is, one would have to apply an appropriate model of inheritance in the constructionist description of *ihjel*.

This paper presents an empirical constructionist study of the combination of verbs and the particle *ihjel*. While empirically based on three hypercorpora, the description of the *ihjel*-construction presented here should not be taken to be any form of exhaustive and final description of *ihjel*. Rather, it should be seen as a first step towards a constructionist description of the construction, exploring the descriptive possibilities of a usage-based approach, in which the construction is an asymmetric category which subsumes different types of subsets – with differing degrees of entrenchment and idiomaticity as well as differences in symbolic structure and patterns of use – as opposed to a description based on complete inheritance, in which a construction is a symmetric category which does not account for differences among its instances.

Before exploring the *ihjel*-construction itself, we will briefly introduce construction grammar in section 2 which serves as the theoretical framework of our discussion of the construction, and, in section 3, we shall contrast usage-based inheritance with complete inheritance pointing out the advantages of the former in the description of the *ihjel*-

construction. After a brief overview of the data and method in the fourth section, verb attraction in the *ihjel*-construction in general is discussed in the light of the results of the corpus investigation in section 5. In section 6, we will look specifically at the symbolic and conventional status of the specific combination of the verb *slå* and *ihjel*, arguing that it serves a specific communicative purpose of its own, and section 7 deals with instances of the *ihjel*-construction co-occurring with reflexive subject exploring the possibility that this constellation might subsume a number of verb-class-based extensions. Finally, in section 8, we discuss metaphorical extensions of the construction.

## **2. Constructions**

The theoretical framework of the present study is that of construction grammar (Goldberg 1995; Fillmore, Kay & O'Connor 1998; Croft 2001) in which the concept of construction is the central unit of grammar. A construction is defined as “an entrenched routine ..., that is generally used in the speech community ... and involves a pairing of form and meaning” Croft (2005:274), and may be found at all levels of linguistic competence:

linguistic knowledge at all levels, from morphology to multi-word units can be characterized as constructions, or pairings of form and meaning ... language users exploit constructions at these various levels to discern from a particular utterance a corresponding collection of inter-related conceptual structures. (Bergen/Chang 2005: 145).

Constructions are conventionalized pairings of form and meaning and essentially semiotic units. Accordingly, rather than being two separate areas of linguistic competence, syntax and the lexicon form a continuum, referred to as the syntax-lexicon continuum (Goldberg 1995:7; Croft 2001:17).

As Lakoff (1977) points out, constructions are considered *gestalts* at several levels. A complex construction is a *gestalt*, such that the entire form is a templatic configuration which expresses semantic and pragmatic content. The formal elements of a construction are defined on the basis of the construction as a functional whole. The form of a construction may be substantive (lexically fixed) or schematic (lexically open). Substantivity/schematicity is essentially a matter of degree (Fillmore, Kay & O'Connor 1988:505fn3) such that a continuum may be posed ranging from totally substantive constructions over constructions with both substantive and schematic elements to constructions which are to-

tally schematic (Croft & Cruse 2004:233-234). Gestaltic features are also found at the semantic level of a construction. The content is often a complex matrix (Langacker 1987, 1991) of cognitive models, which are themselves conceptual gestalts. Consequently, the semantic components of a construction are defined on the basis of the cognitive models they are part of. Finally, the construction is a semiotic gestalt in that the form and content, being associated through convention, form a symbolically holistic structure. This means that the symbolic units within the construction are defined on the basis of the entire construction as a whole. The internal symbolic complexity differs from construction to construction, and constructions are not necessarily of a biunique symbolic nature since one element may form more than one symbolic unit and *vice versa*.

Since constructions are held to be gestalts, they are idiomatic to some degree. Idiomaticity is, indeed, considered central in the definition of the concept of a grammatical construction:

C is a construction iff<sub>def</sub> C is a form-meaning pair  $\langle F_i, S_i \rangle$  such that some aspect of  $F_i$  or some aspect of  $S_i$  is not strictly predictable from C's component parts or from other previously established constructions. (Goldberg 1995:4)

However this does not mean that constructions are *per se* non-compositional. As Michaelis (1998:79) points out, “[t]he Construction Grammar approach does not deny the existence of compositionally derived meaning”. Since many constructions may indeed be analyzed into symbolic units, it would make no sense to argue that construction grammar is a totally non-compositional approach to linguistic structure. Constructions may indeed be compositional, but as Lakoff (1987:465) argues, “grammatical constructions in general are holistic, that is, ... the meaning of the whole construction is motivated by the meanings of the parts but is not computable from them”. The compositionality of a construction is thus determined by its inner symbolic structure. Constructions as well as their instances may differ from each other in terms of idiomaticity such that expressions that are semantically derived from their parts display low idiomaticity and those which are not display high idiomaticity. According to Lipka & Schmid (1994), idiomaticity is very much a matter of degree, and constructions and instances may be plotted onto what they call the scale of idiomaticity.

Constructions are organized in taxonomic networks in which a central schematic construction, providing the formal, semantic and symbolic configuration, licenses instances of the construction. The instances inherit the basic structural configuration from the central schema, much like prototype categories in general, and elaborate on the instance by specifying them lexically.

### **3. *Ihjel*: structure and inheritance**

*Ihjel* is traditionally defined as an adverbial particle which expresses the semantic component TO DEATH, both in a literal sense, as in example (1), and in a metaphorical sense, as in (2):

- (1) *De tævede ham ihjel.*  
They beat him to death.
- (2) *Han kedede sig ihjel.*  
He was bored “to death”.

According to ODS (2007), the adverbial particle *ihjel* is ultimately derived from the Old Danish expression *i hel* (or *i hæl*), which literally means INTO THE REALM OF DEATH. Thus *ihjel* seems to have undergone the grammaticalization process of condensation in which larger multi-unit structures are contracted and condensed into smaller structures of fewer units (Croft 2000:158). Although this is a discussion I shall not pursue further, it could be argued that in the case of *ihjel*, condensation is actually a lexicalization process, as *ihjel* might be argued to be a lexical semantic particle which primarily contributes lexical meaning to the constructional verb-plus-*ihjel* complex.

In Modern Danish, *ihjel* mainly enters into phrasal verb relations which predicate actions that result in the literal or metaphorical death of one or more participants in the situation described. The verb expresses the action itself, and *ihjel* specifies that the action has fatal consequences:

- (3) *Ericson måtte dolke ham ihjel, da vennen var ved at telefonere sine oplysninger.*  
Ericson had to stab him to death, as the friend was about to phone in the information.
- (4) *Gud lader folk sulte ihjel.*  
God lets people starve to death.

- (5) *Før Pickles hakker ham ihjel, springer en tilskuer ind i arenaen.*  
Before Pickles can peck him to death, a spectator jumps into the arena.
- (6) *På vejen fryser hun ihjel i en snedrive.*  
On the way, she freezes to death in a snowdrift.
- (7) *Det vil sige, at folk her keder sig ihjel?*  
Does that mean that people around here are bored to death?
- (8) *Jeltsin er ved at drikke sig ihjel.*  
Jeltsin is drinking himself to death. = Jeltsin is killing himself through excessive alcohol consumption.

At first glance, it seems that, as a construction, the constellation of a verb-plus-*ihjel* has a rather simple symbolic structure, which, in a Langackerian (1987, 1991) fashion, may be represented as [[V *ihjel*]/[ACTION RESULTING IN DEATH OF PARTICIPANT]] (or [[V *ihjel*]/[ACTION > DEATH]]).<sup>2</sup>

This constructional structure is essentially an atomic one in which there is a biunique relationship between form and content. The form consists of two elements – namely, the verb and *ihjel* – and the content of two components – namely, whatever ACTION the PARTICIPANTS are involved in and DEATH OF A PARTICIPANT (or TO DEATH for short) respectively. The action itself is specified by the verb through a process called elaboration which is the addition of further conceptual information to a schematic structure by filling a lexically open slot, a so-called elaboration site (or e-site), in a construction (Langacker 1987:304).

Thus, in example (5), the verb *hakke* specifies the action as that of PECKING (see appendix for a glossary of verbs) and *ihjel* indicates that the consequence of the pecking is the death of Pickles' victim. Likewise, in example (6), *fryse* specifies the action, which in this case is the situation of FREEZING, and *ihjel* indicates that the situation results in the DEATH of the primary participant.

The general symbolic structure of [[V *ihjel*]/[ACTION > DEATH]] seems quite simple and could form the basis of a so-called complete inheritance taxonomy (Goldberg 1995:73-4; Croft & Cruse 2004:270-2), which is characterized by maximal generality, as all instances are directly licensed by one central abstract construction. According to Croft & Cruse (2004:271), “[i]n a complete inheritance model, a construction can inherit the feature structures of its parent construction; this is

the significance of the taxonomic relation between constructions in this model.” This means that all information relating to the construction is stored in the abstract construction, and thus “complete inheritance is an all-or-none relation” (Croft & Cruse 2004:271). In a complete inheritance model, *dolke ihjel*, *sulte ihjel*, *hakke ihjel*, *fryse ihjel*, *kede ihjel*, and *drikke ihjel*, are all direct instances of [[V *ihjel*]/[ACTION > DEATH]], and all of their formal and semantic properties can ultimately be traced back to this central abstract schematic construction.

This would be a simple and easy-to-grasp representation of the *ihjel*-construction, but, due to the all-or-nothing nature of complete inheritance models, it would ultimately be an imprecise one which would fail to capture several critical details regarding patterns of use.

Where complete inheritance models fail to capture details regarding patterns of use, a usage-based inheritance model would not only capture these but also allow for patterns of use to be distinctive such that recurring differences in use may serve as features of subconstructions within a more fine-grained constructional network. Different patterns of use, if statistically significant enough, may be entrenched (Langacker 1987:59) in the network with differing degrees of productivity and idiomatization, as usage-based inheritance allows for category-instance discrepancies and for information redundancy throughout the taxonomy.

Usage-based models do not separate competence from performance since “structure, or regularity, comes out of discourse and is shaped by discourse in an ongoing process” (Hopper 1998:156). As Tomasello (2003:99) points out,

for usage-based theorists the fundamental reality of language is people making utterances to one another on particular occasions of use. When people repeatedly use the same particular and concrete linguistic symbols to one another in “similar” situations, what may emerge over time is a pattern of language use schematised in the minds of users as one or another kind of linguistic category or construction.

Grammar is not an inventory of preset rules and principles that govern linguistic interaction. On the contrary, linguistic competence emerges through discourse, and repetitions in discourse result in the storage of entrenched, but not infinitely fixed, schematizations which language-users apply in discourse – both in decoding and encoding. This means that grammatical structures and lexical units alike are conventionalized through discourse. Thus, a language user’s linguistic knowledge is ultimately experientially based on the frequency of usage-events (Kemmer & Barlow 2000:ix).

The usage-based approach also rejects the notion of a completely decontextualized grammar. Context plays a crucial role in the operation of the linguistic system since language does not exist vacuously, but rather in the context of the world that its speakers live in (Kemmer & Barlow 2000). All types of context may have an impact on the linguistic system to the point that contextual information can be entrenched as linguistic competence if a specific construction is highly frequent in a specific type of context or situation. Moreover, the usage-based approach takes as a central principle the interconnectedness between the linguistic system and non-linguistic cognitive systems such that language is an integrated part of general human cognition and subject to the same processes and principles.

Since linguistic competence is based on inductive learning, linguistic knowledge is acquired in a bottom-up manner through use, allowing for redundancy, generalizations, and types at all levels of the constructional taxonomy.

#### 4. Data and method

The present study is based on an investigation of three Danish language corpora containing written texts – namely, *Korpus 2000* (20 million words), *Korpus 90* (20 million words), and *DFK Loke* (1 million words) – all of which are available in the Danish corpus section at VISL (2008). *Korpus 2000* and *Korpus 90* are mixed written corpora, the former covering texts from 1998 to 2002 and the latter texts from 1988 to 1992 (these two corpora are also available as one corpus, which is called *Korpus DK* and is available at the website of Det Danske Sprog- og Litteraturselskab), while *DFK Loke* contains texts from the online journal *Loke*. Using Bick's (2005) *CorpusEye* concordancer, all instances of *ihjel* were extracted from these corpora and subjected to qualitative and quantitative analyses.

All occurrences of the *ihjel*-construction were analyzed qualitatively and classified in terms of internal symbolic structures and association patterns. Association patterns are “the systematic ways in which linguistic features are used in association with other linguistic and non-linguistic features” (Biber, Conrad & Reppen 1998:5; Biber 2000:289).

The primary quantitative analytical framework is that of colostruational analysis which is a collocational statistical method of measuring the attraction strength, or colostruational strength, between



constructions and lexical items (Stefanowitsch & Gries 2003). Collocation strength is calculated on the basis of the frequency of the cooccurrence of item and construction, the frequency of the item in all other constructions, the frequency of the construction with all other constructions, and the frequency of all other items in all other constructions. These frequencies are then run through a Fischer exact test, a log-likelihood test or a similar test. This results in a so-called p-value which is a number that indicates the collocation strength. The higher the number, the stronger the collocational attraction. Every lexeme that appears in the construction in the corpus is subjected to this operation, and when this procedure has been applied to all lexemes, they are ranked in accordance with collocation strength, the most attracted item ranking the highest.<sup>3</sup>

Attraction patterns may indicate the overall meaning of the construction. According to the principle of semantic compatibility “words can (or are likely to) occur with a given construction if (or to the degree that) their meanings are compatible” (Stefanowitsch & Gries 2005:4). Thus, the meaning of the construction is likely to be closely related to the meanings of the lexemes that are attracted to it. Moreover, attraction patterns may serve as an indicator of entrenchment and productivity. If a lexeme, or a class of lexemes, is highly attracted to a construction, and the qualitative analysis shows that this particular lexeme-construction combination serves a specific communicative function, the combination is likely to form an entrenched and productive item-specific or item-class-specific subconstruction (Croft 2003:57-58, Tomasello 2003:178).<sup>4</sup> On the other hand, if a series of many different items display low collocation strength in relation to a construction, then this could be taken to indicate a more lexically schematic construction.

### **5. Verb attraction in the *ihjel*-construction and semantic compatibility**

The following tables present the results of the collocational analyses. As mentioned above, they are ranked in terms of collocational strength: the higher the attraction of a lexeme to the *ihjel*-construction, the higher it ranks:

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Table 1: Collostruction strengths in *Korpus 2000* (log-likelihood)

Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength
1	<i>slå</i>	8162.05601192555	20	<i>piske</i>	16.8740982306803	39	<i>smadre</i>	7.0637382053432
2	<i>tie</i>	199.450358428844	21	<i>æde</i>	14.8727230123619	40	<i>kvæle</i>	6.97686250249287
3	<i>fryse</i>	198.239483062038	22	<i>slide</i>	14.6793621612037	41	<i>lure</i>	6.68028541969256
4	<i>sulte</i>	133.403364470369	23	<i>intellektualisere</i>	14.6371654978307	42	<i>klemme</i>	6.4328195352845
5	<i>hakke</i>	116.648936561994	24	<i>snakke</i>	14.5189916804893	43	<i>underholde</i>	6.11441939187072
6	<i>stikke</i>	110.828369357678	25	<i>analysere</i>	13.9957454065328	44	<i>slæbe</i>	5.92674677905053
7	<i>tæve</i>	97.1975286757167	26	<i>jokke</i>	12.6554904853644	45	<i>konkurrere</i>	5.68068989556783
8	<i>trampe</i>	86.140823206168	27	<i>bide</i>	12.6146715021357	46	<i>anmelde</i>	5.65410253020507
9	<i>drikke</i>	78.2248636465177	28	<i>tørste</i>	11.2419726279742	47	<i>udpege</i>	4.3456698144217
10	<i>kede</i>	66.011692062483	29	<i>stampe</i>	10.9787942623007	48	<i>grine</i>	4.22954973379484
11	<i>køre</i>	55.1757439527594	30	<i>bagatellisere</i>	10.4606525214006	49	<i>træne</i>	3.84636996005127
12	<i>brænde</i>	46.3334465092385	31	<i>blende</i>	10.1775854670365	50	<i>producere</i>	3.49415153301083
13	<i>mase</i>	45.6281022022941	32	<i>tæske</i>	9.08778739754057	51	<i>ryge</i>	3.3457728371367
14	<i>sejre</i>	40.8929128366056	33	<i>skygge</i>	9.05002148824702	52	<i>skyde</i>	3.23182366182973
15	<i>prygge</i>	39.3848388040098	34	<i>gæbe</i>	8.85425960147172	53	<i>synge</i>	3.0269751458824
16	<i>sparke</i>	33.0883378877951	35	<i>riste</i>	8.52697106223301	54	<i>spise</i>	2.23172999036071
17	<i>dolke</i>	28.2025942776285	36	<i>knokle</i>	7.64857021486806	55	<i>forklare</i>	1.62471645747137
18	<i>stene</i>	26.6593023300169	37	<i>forurene</i>	7.3266177680155	56	<i>arbejde</i>	0.593507520358105
19	<i>pine</i>	20.1646816245358	38	<i>beskatte</i>	7.0637382053432	57	<i>gå</i>	0.415735573463915

Table 2: Collostruction strengths in *DFK Løke* (log-likelihood)

Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength
1	<i>slå</i>	815.058594354556	6	<i>drikke</i>	14.2346629996570	11	<i>brænde</i>	7.50490074603736
2	<i>fryse</i>	65.6469085654449	7	<i>pine</i>	11.8304916469021	12	<i>træde</i>	7.03958933861897
3	<i>kede</i>	26.6236711574002	8	<i>slikke</i>	11.4005562931867	13	<i>stikke</i>	6.88847490853587
4	<i>sulte</i>	21.6130382833026	9	<i>trampe</i>	9.7460503141066	14	<i>køre</i>	5.09263122772377
5	<i>tie</i>	19.2458253534347	10	<i>banke</i>	8.37937144001698	15	<i>ligge</i>	3.33135969258534

Table 3: Collostruction strengths in *Korpus 90* (log-likelihood)

Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength	Rank	Lexeme	Collostruction strength
1	<i>slå</i>	10173.1858047602	22	<i>køre</i>	24.2465208960621	43	<i>køge</i>	7.50559453221148
2	<i>sulte</i>	325.039945061079	23	<i>stene</i>	24.0276901721085	44	<i>gæbe</i>	7.30424626446928
3	<i>tie</i>	181.363880476417	24	<i>tæske</i>	23.8172623602923	45	<i>svede</i>	6.53157514345278
4	<i>stikke</i>	178.378566264311	25	<i>prygge</i>	22.8243221529522	46	<i>riste</i>	6.3441096923247
5	<i>fryse</i>	176.159771340086	26	<i>træde</i>	18.9015585683915	47	<i>konkurrere</i>	5.68719158906328
6	<i>drikke</i>	117.058952036521	27	<i>trampe</i>	17.0993969584021	48	<i>vokse</i>	5.67909629199282
7	<i>brænde</i>	105.322525730640	28	<i>grine</i>	15.6984988110873	49	<i>tale</i>	5.5009489136288
8	<i>kede</i>	93.6647069419159	29	<i>spare</i>	14.7458288605423	50	<i>tvivle</i>	5.44475649394423
9	<i>bide</i>	75.339150092912	30	<i>sørge</i>	12.8346214635144	51	<i>hygge</i>	5.33967854489175
10	<i>tæve</i>	71.2730283200295	31	<i>piske</i>	11.8664096764299	52	<i>æde</i>	4.7304451663754
11	<i>stange</i>	51.8657388157762	32	<i>hakke</i>	11.4027146282575	53	<i>slæbe</i>	4.53518671815439
12	<i>sparke</i>	40.9902014029278	33	<i>søde</i>	9.9298604419723	54	<i>skylle</i>	4.48827452716858
13	<i>dolke</i>	40.7106195449221	34	<i>tørste</i>	9.9298604419723	55	<i>banke</i>	4.04972774555123
14	<i>klemme</i>	32.8039757120755	35	<i>torturere</i>	9.5193221628498	56	<i>klippe</i>	3.65887041240696
15	<i>slide</i>	30.2732529343940	36	<i>skolde</i>	9.48864971587203	57	<i>ligge</i>	2.98686014786708
16	<i>knokle</i>	30.1882927589069	37	<i>fortie</i>	9.10260175016722	58	<i>diskutere</i>	2.78336114148469
17	<i>snakke</i>	29.3987615317089	38	<i>profilere</i>	9.10260175016722	59	<i>producere</i>	2.74379608710574
18	<i>pine</i>	28.1175419050638	39	<i>danse</i>	8.79986294001278	60	<i>behandle</i>	2.06882148380361
19	<i>skygge</i>	28.0889310274552	40	<i>gasse</i>	8.75838232088111	61	<i>elske</i>	1.53667947029449
20	<i>skyde</i>	27.6855239595325	41	<i>snappe</i>	8.65575579578244	62	<i>spise</i>	1.36037837809365
21	<i>sejre</i>	25.9733323769132	42	<i>visne</i>	8.01254335972681	63	<i>spørge</i>	0.394057859441692

The collostructional analyses indicate a preference for verbs that express violent actions that typically result in physical harm, damage or injury, such as *hakke, sparke, stikke, tæve, dolke, stene, prygle* and *pine*, all of which are fairly strongly attracted to the *ihjel*-construction. Other verbs of violence such as *piske, tæske, bide, kvæle, stange*, and *skyde* as well as verbs that express other situations which are not necessarily violent, but certainly may result in physical harm, such as *brænde, skolde, koge, klemme*, and *rive*, appear with varying degrees of attraction. Below are some examples of verbs of violence and direct or indirect harm in the *ihjel*-construction – see also (1), (3), and (5) above:

- (9) *De sparkede dem ihjel, mand!*  
They kicked them to death, man!
- (10) *Når en okse stanger en mand eller kvinde ihjel, skal oxen stenes, og man må ikke spise dens kød.*  
When an ox gores a man or a woman to death, it must be stoned and eating its flesh is forbidden.
- (11) *Og kapitlet ender endda med, at de jøder, han har snakket med, - altså de, der var kommet til at tro på ham, - ta'r sten op og vil stene ham ihjel, men han går sin vej.*  
And the chapter even ends with the Jews he spoke to – that is, those who had started to believe in him – picking up stones and wanting to stone him to death, but he walks away.
- (12) *Da en ukrainer så, at han lå på jorden og stadig trak vejret, blev han pryglet ihjel.*  
When a Ukrainian saw that he was still breathing, while lying on the ground, he was flogged to death.
- (13) *Man er blevet pisket ihjel.*  
One has been whipped to death.
- (14) *Og så er der indvandreren, der næsten tæskes ihjel af bøller, mens folk ved et stoppested overfor blot ser passive til.*  
And then there's the immigrant who's almost being beaten to death by hooligans while people at a bus stop across the street just passively look on.

- (15) *Og der er såvel folkelig som retslig forståelse for, at politiet i ny og næ må skyde en flygtning ihjel.*  
And there is public, as well as legal, understanding that the police have to shoot dead a refugee now and then.

It is no surprise that such verbs are highly attracted to the *ihjel*-construction, since one potential result of bodily harm caused by violence is death. The elaboration process is quite straightforward. Each verb expresses a scenario in which an ASSAILANT attacks a VICTIM which results in PHYSICAL HARM. Argument structure is important here, since the argument structure associated with the verbs in question express specific participant roles in the scenario. Most of the verbs of violence that appear in the *ihjel*-construction are transitive, the subject expressing the assailant and the object expressing the victim. When a verb of violence fills the verb slot in the *ihjel*-construction, the [SUBJ V<sup>VIOLENCE</sup> OBJ] structure specifies that the action of the verb in the *ihjel*-construction is a two-participant one in which the AGENTIVE participant fuses with the ASSAILANT, and the PATIENT with the VICTIM. The ACTION itself fuses with the situation expressed by the verb of violence, while the nature of the BODILY HARM is specified as being the DEATH of the VICTIM through *ihjel*. It is worth mentioning that the *ihjel*-construction, with some systematic exceptions, primarily appears in transitive contexts in the three corpora. A distinctive collexeme analysis, a type of collostructional analysis which measures the differences in attraction between one item and two or multiple functionally overlapping constructions (Gries & Stefanowitsch 2004), has shown that that most verbs in the *ihjel*-construction appear with transitive and transitive-based constructions such as passive constructions and the antipassive construction (note that the occurrence of identical collostruction strength numbers is caused by identical frequencies of cooccurrence):

*Fatal attraction: inheritance and collocation ...*

Table 4: Cross-corpora distribution of preferred transitivity contexts (T-contexts)

Lexeme	T-context	Collocation strength	Lexeme	T-context	Collocation strength
fryse	Intransitive	160.330841244883	konkurrere	Transitive	0.139261693383262
sulte	Intransitive	104.989168594515	producere	Transitive	0.139261693383262
brænde	Intransitive	30.3784467423641	riste	Transitive	0.139261693383262
tørste	Intransitive	13.5654294644269	slæbe	Transitive	0.139261693383262
visne	Intransitive	6.76687243164386	spise	Transitive	0.139261693383262
koge	Intransitive	4.062791251085	tæske	Transitive	0.139261693383262
slå	Transitive	180.5046883491	vokse	Transitive	0.139261693383262
stikke	Transitive	2.53096069854406	anmelde	Transitive	0.0696112944970866
tie	Transitive	2.45995409784529	arbejde	Transitive	0.0696112944970866
drikke	Transitive	1.96404326423250	bagatellisere	Transitive	0.0696112944970866
køre	Transitive	1.32934433591839	behandle	Transitive	0.0696112944970866
kede	Transitive	1.18874027602151	beskatte	Transitive	0.0696112944970866
tæve	Transitive	0.908009597587837	blende	Transitive	0.0696112944970866
hakke	Transitive	0.837926132439357	diskutere	Transitive	0.0696112944970866
bide	Transitive	0.7678822593837	elske	Transitive	0.0696112944970866
trampe	Transitive	0.697877933708995	fortie	Transitive	0.0696112944970866
snakke	Transitive	0.627913110776946	gasse	Transitive	0.0696112944970866
sparke	Transitive	0.627913110776946	gå	Transitive	0.0696112944970866
sejre	Transitive	0.488101794973087	hygge	Transitive	0.0696112944970866
pine	Transitive	0.418255213204187	intellektualisere	Transitive	0.0696112944970866
skyde	Transitive	0.418255213204187	jokke	Transitive	0.0696112944970866
slide	Transitive	0.418255213204187	klippe	Transitive	0.0696112944970866
dolke	Transitive	0.348447956384181	kvæle	Transitive	0.0696112944970866
klemme	Transitive	0.348447956384181	lure	Transitive	0.0696112944970866
prygle	Transitive	0.348447956384181	profilere	Transitive	0.0696112944970866
træde	Transitive	0.348447956384181	ryge	Transitive	0.0696112944970866
grine	Transitive	0.278679980252553	skolde	Transitive	0.0696112944970866
knokle	Transitive	0.278679980252553	skylle	Transitive	0.0696112944970866
ligge	Transitive	0.278679980252553	slikke	Transitive	0.0696112944970866
mase	Transitive	0.278679980252553	smadre	Transitive	0.0696112944970866
piske	Transitive	0.278679980252553	snappe	Transitive	0.0696112944970866
skygge	Transitive	0.278679980252553	spørge	Transitive	0.0696112944970866
stange	Transitive	0.278679980252553	stampe	Transitive	0.0696112944970866
stene	Transitive	0.278679980252553	svede	Transitive	0.0696112944970866
spare	Transitive	0.208951240622732	synges	Transitive	0.0696112944970866
sørge	Transitive	0.208951240622732	søde	Transitive	0.0696112944970866
tale	Transitive	0.208951240622732	tortere	Transitive	0.0696112944970866
æde	Transitive	0.208951240622732	træne	Transitive	0.0696112944970866
analysere	Transitive	0.139261693383262	tvivle	Transitive	0.0696112944970866
banke	Transitive	0.139261693383262	tæske	Transitive	0.0696112944970866
danse	Transitive	0.139261693383262	udpege	Transitive	0.0696112944970866
gabe	Transitive	0.139261693383262	underholde	Transitive	0.0696112944970866

It is interesting to note that, while outnumbered by far by verbs in transitive contexts, the six verbs that prefer intransitive contexts in this construction yield higher numbers than any other verb with the exception of *slå*. A tentative explanation could be that they form a subset of their own which deviates in transitivity from the majority of the instances of the *ihjel*-construction. Some of the verbs certainly seem to be semantically related in terms of agency and other force dynamic relations. Verbs like *fryse*, *sulte*, *tørste* and *visne* all predicate situations in which some force, which is not identical to the primary participant, causes the primary participant to undergo a slow change of state which, due to the presence of *ihjel*, leads to the primary participant's ceasing to exist. They are not exactly verbs of violence, but they do result in some harm to the primary participant. It could be that the presence of such a force is simply implicit in the verbs to such an extent that it does not need to be overtly expressed through cooccurrence with a transitive argument construction. A similar explanation might apply to *brænde* and *koge* which also predicate situations where some force leads to the destruction of the primary participant, the difference being that the predicated situations here are less durative than with the four other verbs. If the implicit-agency argument holds, then one might even take it a step further and argue that we are then dealing with a case of lexically expressed middle voice, which is the reason why these six verbs in the *ihjel*-construction are so strongly attracted to intransitive contexts.

In addition to verbs of violence, the *ihjel*-construction also attracts verbs that express situations which, if they involve animate participants, result in physical harm:

- (16) *Efterretningsforlydender vil vide, at lokale myndigheder og hærheder samarbejdede om at entre turisternes båd, tømme lommerne på dem, stoppe dem ned i bådens nederste kahyt og brænde dem ihjel.*

According to intelligence reports, local authorities and militias cooperated in boarding the tourists' boat, emptying their pockets, stuffing them into the lowest cabin and burning them to death.

- (17) *Under de frygteligste pinsler blev den 87-årige Anne Pedersen natten til onsdag skoldet ihjel i sin seng på Sæby Ældrecenter.* Suffering the most terrible torment, the 87-year-old Anne Pedersen was scalded to death in her bed in Sæby Resthome Tuesday night.

- (18) *Anonyme mennesker, skummende af ondskab, proklamerer, at de kun ønsker at koge mig ihjel i kogende salpeter, udtalte Elsa Gress over seks spalter på BT's forside.*  
Anonymous people, foaming with evil, claim that all they want is to boil me to death in boiling nitre, said Elsa Gress over six columns on the front page of *BT*.
- (19) *Klemte ihjel i mejetærsker.*  
Crushed to death in a harvester.

The elaboration process is more or less identical to that described above in relation to less ambiguous verbs of violence.

Another group of verbs that seem to adhere to the semantic compatibility principle are verbs such as *sulte* (and, less prominently, *tørste*) and *fryse*, which express various situations of discomfort which may also lead to the death of the primary participant:

- (20) *Ofre for trafikulykker på Storebæltsbroen kan fryse ihjel, hvis ikke de reddes hurtigt.*  
Victims of accidents on the Great Belt Bridge may freeze to death if they are not rescued quickly.
- (21) *Så var der igen en besætning på ca. 100 svin, der pga. vanrøgt sultede og tørstede ihjel.*  
Yet another stock of about 100 pigs starved and thirsted to death due to neglect. = Yet another stock of about 100 pigs died from starvation and thirst due to neglect.

Note that, unlike the verbs of violence and potential physical harm, these verbs, when in the *ihjel*-construction, appear in an intransitive context. Accordingly, the predicated scenario is rather different from the two-participant situations mentioned above. In cases like this, the *ihjel*-construction expresses a one-participant scenario in which the participant is subjected to some type of DISCOMFORT resulting in the DEATH of the participant. As table 4 shows, the difference in transitivity patterns between this use of the *ihjel*-construction and the transitive uses discussed above suggests that there are two transitivity-based subtypes of the construction which differ in terms of the situation-types and, consequently, verb preference.

Generally, verbs that do not easily fit into the picture, like *konkur-rere*, *elske*, *grine*, *skygge*, and *spørge*, display low degrees of attraction, which also would adhere to the principle of semantic compatibility. However, as mentioned above, there are a number of verbs that seem to violate the principle of semantic compatibility such as *tie*, *drikke*, *sejre*, and *køre*, which are highly attracted to *ihjel*, again suggesting that *ihjel*-construction is more complex in terms of entrenchment and productivity than what a complete inheritance taxonomy could capture:

(22) *Det kan godt være, at vi har sejret os ihjel.*

It may well be that we have triumphed ourselves to death.

(23) *Den unge sygeplejerske Winnie Holms sorgløse tilværelse bliver brat slået i stykker, da hendes elskede halvbror, Kenneth Larsen, kører en kvinde ihjel i beruset tilstand.*

The young nurse Winnie Holm's peaceful life is abruptly shattered when her beloved halfbrother Kenneth Larsen hits and kills a woman while driving drunk.

(24) *Vi tillader folk at drikke sig ihjel.*

We allow people to drink themselves to death.

(25) *Debatten ties ihjel.*

The debate is hushed to death. = The debate is hushed into oblivion.

I will return to these later on, discussing the possibility of some of these forming idiomatic subconstructions within the *ihjel*-construction, some of which are of a metaphorical nature.<sup>5</sup>

### **6. *Slå ihjel*: an idiomatic subconstruction**

In all of the above examples, the verb retains its basic meaning and contributes, through elaboration, to the final specification of the situation in question. However, interestingly, the verb that displays the highest degree of attraction, *slå*, does not retain its literal meaning in the *ihjel*-construction. Technically, *slå* is quite compatible with the *ihjel*-construction and belongs to the group of verbs of violence. However, unlike what one might expect, *slå ihjel* does not mean HIT TO DEATH. Rather, it refers more generically to the act of KILLING or otherwise CAUSING someone TO DIE as illustrated by the following examples:



- (26) *Han betragtede sin stivnede hånd, der dirrede svagt, få centimeter fra den røde plasticknap, der kunne afbryde den forbindelse, der slog ham ihjel.*  
He observed his stiffened hand, which was weakly shaking a few centimeters from the plastic button that could switch off the connection that was killing him.
- (27) *Heden kan slå os ihjel!*  
The heat can kill us!
- (28) *Når den hævnende kanaima omsider finder den, der var skyld i hans slægtnings død, alene, kan han slå ham ihjel med kølle, pil eller gift.*  
When the avenging Kanaima finally finds the person who was responsible for the death of his relative, he may kill him with a club, an arrow or poison.
- (29) *Lokalbefolkningen fra landets to rivaliserende stammer slår hinanden ihjel med stokke, knive og macheter.*  
The locals from the country's two rivaling tribes kill each other with sticks, knives and machetes.
- (30) *Han hæver sin jagtdolk og slår bjørnen ihjel, og den falder om ved hans fødder.*  
He raises his hunting dagger and kills the bear, and it drops dead at his feet.
- (31) *De mennesker, der slås ihjel af tobakken som midaldrende, ville i gennemsnit have haft yderligere 20-25 år, hvis de ikke havde røget.*  
Those people who are killed by tobacco as middle-ageds would have had further 20 or 25 years in average had they not been smokers.

The linguistic context indicates that, while the verb is *slå*, there is in fact no hitting involved. In (28) and (29), hitting may of course be involved since clubs and sticks are mentioned as possible weapons, but in either example such blunt weapons are only options among other non-blunt weapons, such as arrows and poison, in (28), and knives and machetes, in (29), and these non-blunt weapons certainly are legitimate

instruments in the actions *slå ihjel* predicates in (28) and (29). In (26), it predicates the situation of lethal electrocution, while in (27) it predicates the situation of dying from heat, and, in (31), it refers to death as the result of many years of smoking. Hitting is not, by any stretch of one's imagination, even potentially relevant to any of these situations. Instances like (26)-(31) indicate that the constellation *slå*-plus-*ihjel* is different from the instances in examples (1)-(25) in terms of the specificity of the action itself. In (1)-(25), a specific verb fills the verb position and, through elaboration, the combination of this specific verb and *ihjel* refers to a very specific fatal situation. Unlike the instances in examples (1)-(25), *slå ihjel* does not refer to a specific way of killing a participant in a situation, but to KILLING in general.

Thus, *slå ihjel* and [V *ihjel*] differ in terms of levels of categorization (e.g. Lakoff 1987). *Slå ihjel* expresses the basic level category of KILL, which provides a generic scenario, in which a KILLER causes a VICTIM to DIE (using some INSTRUMENT). Unlike *slå ihjel*, [V *ihjel*] expresses more specific instantiations of this scenario in accordance with the meaning of the verbs that appear in the construction, and thus refers to subordinate instantiations of the basic level KILL category. Whereas [V *ihjel*] is atomic and compositional, *slå ihjel* is non-compositional, as its internal structure cannot be analyzed into smaller symbolic units. This indicates that *slå ihjel* forms an entrenched communicatively specific subconstruction with the symbolic structure of [[*slå ihjel*]/[KILL]]. Furthermore, [[*slå ihjel*]/[KILL]] ranks quite high on Lipka & Schmid's (1994) scale of idiomaticity, while [[V *ihjel*]/[ACTION > DEATH]] displays a much lower degree of idiomaticity. Given the fact that it serves a specific communicative purpose, [*slå ihjel*] is an item-specific construction in its own right which inherits some formal features from the central [V *ihjel*] construction, but which cannot be said to be on par with the instances of [V *ihjel*] in (9)-(25).

In addition to the semantic difference between [*slå ihjel*] and [V *ihjel*], the two also differ in terms of stress distribution.<sup>6</sup> In [*slå ihjel*], the primary stress is placed on the second syllable in *ihjel*, while the main syllable of the verb receives primary stress in [V *ihjel*]. This difference is probably not arbitrary, but motivated by the specificity of content. Since [V *ihjel*] expresses subordinate instances of the KILL category, the verb specifies the nature of situation, and therefore, in terms of information prominence, it makes sense that it receives stress prominence so as to emphasize the specificity that defines the subordinate instance.<sup>7</sup>

Given the semantic differences in levels of categorization and degree of idiomaticity and the formal differences, both in terms of lexical substantivity and stress distribution, it makes sense to argue that ['V *ihjel*] and [*slå i 'hjel*] are two different constructions within the *ihjel* network.

### **7. Reflexive objects**

In the three corpora, certain verbs, or types of verbs, in the *ihjel*-construction appear exclusively or significantly frequently with reflexive objects. In a complete inheritance approach, this would be of no consequence, since contextual factors are peripheral at best, but in a usage-based approach, in which linguistic competence is discourse-driven, such patterns must be taken into consideration.

Below are some examples of the *ihjel*-construction in reflexive syntactic contexts:

- (32) *Stop, stands, gem dog den djævelske trylleføjte, før vi danser os ihjel.*

Stop, hold it, put that damn magic flute away before we'll dance ourselves to death.

- (33) *De vil grine sig ihjel, konerne inde i byen.*

They are going to laugh themselves to death, the women in town.

- (34) *Fem personer forsøgte i går at brænde sig ihjel inde på Den Himmelske Freds Plads i Beijing.*

Yesterday, five people tried to burn themselves to death on Tianmen Square in Beijing.

- (35) *Jeg knokler mig da halvt ihjel for dig.*

I work myself half to death for you.

- (36) *Enten kan man kynisk grine ad det hele eller drikke sig ihjel eller begge dele.*

One can either laugh cynically at everything or drink oneself to death or do both.

There seem to be two different usage-patterns when it comes to the *ihjel*-construction and reflexive objects. The first pattern cannot be said to actually be a pattern, as it covers instances where the *ihjel*-construction just happens to appear with a reflexive object in order to express a self-directed action which happens to have fatal consequences.<sup>8</sup> In such cases, there is no statistical significance in frequency of co-occurrence of verb and reflexive object. This is the case of (32)-(34). The second pattern, which applies to (35) and (36), includes instances where a specific verb, or a verb-class, co-occurs significantly frequently with a reflexive object, and the entire constellation may be argued to have a specific communicative function.

There are two semantic verb-classes whose members appear significantly frequently with reflexive objects in the *ihjel*-construction – namely, verbs of effort and verbs of ingestion. These are likely to be item-class-specific subconstructions of the *ihjel*-construction which also have a preference for reflexive contexts understood such that this preference is entrenched as part of the linguistic competence pertaining to these subconstructions. In addition there are a number of individual verbs which appear either exclusively or significantly frequently with reflexive objects, such as *gabe*, *grine*, *vokse*, *sejre*, *profilere* and *kede*. While the two item-class-based usage patterns are literal in the sense that they express situations leading to literal deaths, these individual verbs are of a more metaphorical nature when appearing in the *ihjel*-construction.

The two semantic verb-classes are more or less in violation of the principle of semantic compatibility since they do not express situations that will result in physical harm. Yet, some of the verbs within these categories display significant attraction to the *ihjel*-construction. Coercion is typically involved when there is semantic conflict between a lexeme and the construction it appears in. Coercion is “the general term for contextual reinterpretation” (Swart 2003:237), and coercion typically “occurs when there is a mismatch between the semantic types required by a given operator and the semantic type with which that operator is actually combined” (Francis & Michaelis 2003:18). Coercion is thus a semantic type-shifting, or reconstrual, prompted by an atypical symbolic relation or an atypical context. In relation to the *ihjel*-construction, incongruous verbs are typically coerced into expressing situations that are more likely to have fatal results, and often additional information is added to what they typically express – information which is computable from neither *ihjel* nor the verb in question.

### 7.1 Verbs of ingestion

Obviously in violation of the principle of semantic compatibility, *drikke* is nonetheless quite highly attracted to the *ihjel*-construction in all three corpora, with *æde* and *spise* being less attracted, yet displaying a statistically preference for reflexive objects. Below are some examples:

- (37) *Når jeg har drukket mig ihjel og er død og begravet, vil du se orme og alt muligt.*  
When I've drunk myself to death and am dead and buried, you'll see worms and all kinds of things.
- (38) *Selvom han i dag er en køn og slank dreng, kunne han spise sig ihjel, hvis han fik lov.*  
Even though he is a pretty and slim boy today, he could eat himself to death if allowed to.
- (39) *Navnet betyder Det Store Ædegilde og mindede os om en femten år gammel fransk film af samme titel, hvor fire let aldrende ungarle åd sig ihjel på en lang weekend.*  
The name means The Big Feast and reminded us of a fifteen years old French movie with the same title, in which four slightly aging bachelors ate themselves to death while on an extended weekend.

*Drikke*, *æde*, and *spise* express specifications of the ingestion scenario which, as mentioned above, is incongruous with the *ihjel*-construction. However in the *ihjel*-construction, verbs of ingestion are coerced into expressing EXCESSIVE INGESTION which will lead to the DEATH of the INGESTOR. Thus, [V<sup>INGESTION</sup> OBJ<sub>reflexive</sub> *ihjel*] seems to combine the specified INGESTION frame expressed by the verb in question with the *ihjel*-construction through fusion with the participant roles of the reflexive transitive construction.

While this might, at first sight, look like just an instance of the transitive reflexive construction at play like in (34), there is an important semantic difference. In a case like (34), no coercion is involved, and no additional information is added to the verb other than the situation being a self-directed one. The EXCESS component is not directly derived from the elements in this instantiation of the *ihjel*-construction, but added via coercion.

Moreover, using a verb of ingestion with a non-reflexive object would be, if not ungrammatical, then at least questionable:

- (40) a. ?*Fire let aldrende unkarle åd den ihjel.*  
Four slightly aging bachelors ate it to death.
- b. ?*Fire let aldrende unkarle drak det ihjel.*  
Four slightly aging bachelors drank it to death.
- c. ?*Fire let aldrende unkarle spiste den ihjel.*  
Four slightly aging bachelors ate it to death.

It does indeed seem that verbs of ingestion (at least the three verbs that appear in the three corpora)<sup>9</sup> display specific patterns of behavior in terms of syntactic context. So, here, it would make sense to argue that [ $V^{\text{INGESTION}}$  OBJ<sub>reflexive</sub> *ihjel*] does form an item-class-specific subconstruction.

When comparing *spise* and *æde*, we see that *æde* is more attracted to the *ihjel*-construction than *spise*, the reason probably being a difference in degree of semantic compatibility between these verbs and the *ihjel*-construction. *Spise* expresses the basic level category of INGESTION OF SOLID SUBSTANCES BY HUMANS, whereas *æde* expresses INGESTION OF SOLID SUBSTANCES BY ANIMALS. When used with humans, *æde* often refers to a more gluttonous, less civilized and more animalistic, way of eating. *Æde* is thus a more 'dramatic' word than *spise*, and also implies large quantities of food, and the gluttonous eating and the amounts of food associated with *æde*, arguably makes *æde* more compatible with the *ihjel*-construction than a less dramatic verb like *spise*.

"*Drikke* OBJ<sub>reflexive</sub> *ihjel*" displays significant collocation strength and, in addition to the general coercion pattern described above, it seems to serve an even more specific communicative function. The verb *drikke* itself expresses the generic situation of INGESTING ANY FORM OF LIQUID SUBSTANCE, but it may also more specifically express the INGESTION OF ALCOHOL through conventional implicature. In the *ihjel*-construction, this implicature gains primary salience, and *drikke* seems to exclusively express EXCESSIVE CONSUMPTION OF ALCOHOL. It is possible that the EXCESS component is inherited from the item-class-specific subconstruction discussed above. These factors point in the direction of [*DRIKKE* OBJ<sub>reflexive</sub> *ihjel*] being an item-specific subconstruction of the *ihjel*-construction which inherits most of its form and content from the [ $V^{\text{INGESTION}}$  OBJ<sub>reflexive</sub> *ihjel*] subconstruction, but still serves a specific communicative function.

### 7.2 Verbs of effort

The class of verbs dubbed verbs of effort includes verbs that refer to the process of working. In the *ihjel*-construction, verbs of effort primarily appear with reflexive objects.

- (41) *Det var det år, Ib Schønberg bukkede under for kræft efter i realitet at have knoklet sig selv ihjel.*

That was the year the Ib Schønberg gave in to cancer, in reality having worked himself to death.

- (42) *Han mener dog ikke, at de nye arbejdstidsregler vil føre til det rene anarki, hvor en gruppe danskere vil arbejde sig ihjel.*

He does not think, however, that the new rules for working hours will result in a state of pure anarchy in which a group of Danes will work themselves to death.

- (43) *Da vi var tæt på den rendyrkede liberalisme, sled tusinder af arbejdere sig ihjel under umenneskelige forhold i byernes slum.*

When we were close to having pure Liberalism, thousands of workers worked themselves to death in the slums of the cities.

In the corpora, verbs of effort combined with *ihjel* invariably express the WORKING frame in which an AGENT WORKS ON ACHIEVING a GOAL (using some SALIENT ENTITY or INSTRUMENT). As with the verbs of ingestion, specificity versus generality in relation to level of categorization appears to have an influence on verb attraction to the *ihjel*-construction, which primarily attracts verbs that express HARD WORK rather than just basic level WORK – *slide* and *knokle* appear in *Korpus 90* and *Korpus 2000*, ranking relatively high, whereas the basic level term *arbejde* only appears in *Korpus 2000*, ranking at 57 which is towards the bottom. This suggests again that specific and more dramatic verbs tend to be preferred over more generic and vague basic level ones in the *ihjel*-construction.

### 8. Metaphorical extensions

Most of the instances of the *ihjel*-construction we have discussed so far are very much literal in the sense that the predicated situations result in the literal death of a participant. However, the *ihjel*-construction may also be metaphorically used to express situations which are conceptualized in terms of the content of the *ihjel*-construction. Such metaphorical

extensions are not uncommon among constructions (Lakoff 1987:465). Consider the following examples:

- (45) *Denne sag kan bagatelliseres ihjel.*  
It is possible to trivialize this case “to death”.
- (46) *Men enhver, der har prøvet at få sine kæreste hjertebørn anmeldt ihjel, ved at overbærenhed ikke præger universitetsmiljøet.*  
Anyone who has had their darlings reviewed “to death” knows that forgiveness is not a characteristic of Academia.
- (47) *Pigen derimod analyserer og intellektualiserer det spæde forhold ihjel.*  
The girl, however, will analyze and intellectualize the new and fragile relationship “to death”.
- (48) *De to selskaber var ved at konkurrere hinanden ihjel.*  
The two companies were about to compete each other “to death”.
- (49) *Jeg tror, man kan producere sig selv ihjel.*  
I think it is possible to produce oneself “to death”.
- (50) *Enhver god sag kan diskuteres ihjel.*  
Any good case can be discussed “to death”.
- (51) *Kulturen er sneet inde i velfærd, sødet ihjel af pop, eller styret af underholdningsbranchen.*  
Culture is snowbound by welfare, sweetened “to death” by pop or controlled by the entertainment business.

All of the above examples express an ACTION CARRIED OUT IN EXCESS LEADING TO A METAPHORICAL DEATH. The ACTION is carried out to such an extent, by repetition or otherwise, that it influences the PATIENT as way that it is likened to DEATH and the PATIENT is likened to a VICTIM of KILLING.

Perhaps not surprisingly, the verbs that are used metaphorically in the *ihjel*-construction generally display low collocation strength. This is to be expected, as it complies very well with the principle of semantic compatibility. It is possible that this pattern of metaphorical use of the *ihjel*-construction forms a conventional metaphorical extension of the construction, thus serving as a subconstruction inheriting from



the central construction through a metaphorical inheritance link (Goldberg 1995).

There are a few highly attracted verbs which are incongruous with the *ihjel*-construction, and which appear exclusively in metaphorical extension of the construction. They seem to inherit the EXCESS component from the general metaphorical extension construction, but, given that the verbs are so highly attracted to the construction, it is possible that they form item-specific subconstructions within the metaphorical extension of the *ihjel*-construction.

One such candidate is [*kede* OBJ<sub>(reflexive)</sub> *ihjel*], which inherits the EXCESS component, but not the metaphorical DEATH facet as such:

(52) *Nu har de kedet folk ihjel i århundreder.*

They have bored people to death for centuries now.

(53) *Hvad gør så en intellektuel, når det er noget lort at flyve i concorde og man keder sig ihjel hos Shell?*

What, then, is an intellectual supposed to do when flying on a concorde sucks, and one is bored to death at Shell's?

This configuration expresses a scenario in which an EXPERIENCER has an EXPERIENCE of some STIMULUS, the EXPERIENCE itself being one of BOREDOM, and thus it combines this BORE scenario with semantic components of the *ihjel*-frame. Interestingly, [SUBJ *kede* OBJ *ihjel*] appears more frequently with reflexive objects than non-reflexive ones, with a frequency of occurrence of 87% versus 17%. This suggests that, perhaps, a usage-pattern is emerging in which reflexive objects are becoming an integrated part of the linguistic knowledge pertaining to [*kede* OBJ *ihjel*]. Yet, it is likely that the preference for reflexive objects is inherited from one of the senses of *kede*, which, when appearing with a reflexive, describes the EXPERIENCER'S EXPERIENCE of BOREDOM as in (53) above.<sup>10</sup> As mentioned above, death is not the outcome of the situation, and, unlike in examples (45)-(51) where a participant clearly suffers some metaphorical DEATH, the EXPERIENCER cannot really be said to die even metaphorically here. It seems that only the EXCESS component from the metaphorical extension applies here. So, the EXPERIENCER does not necessarily die from being bored. Rather, the expression metaphorically conveys a very high degree of boredom.

Another possible subconstruction within the metaphorical extension is [*TIE ihjel*], which like [*kede ihjel*] expresses high collocation strength. Here are some examples:

- (54) *Han skulle ties ihjel.*  
He should be hushed to death. = He should have been forgotten/  
ignored by not being mentioned.
- (55) *Og så er der alle de forhold, der er blevet tiet ihjel.*  
And then there are all those issues that have been hushed to death.  
= And then there are all those issues that have not been mentioned  
and which people are oblivious of.
- (56) *Fordrivelsen som helhed skulle have været tiet ihjel.*  
The expulsion as a whole should have been hushed to death. =  
The expulsion as a whole should have remained unknown by not  
being mentioned.

*Gabe, grine, vokse, sejre, and profilere*, which I mentioned above, along with the verbs in examples (41)-(51), are not likely candidates for item-specific metaphorical extensions due to the low degrees of general attraction. However, it is possible that a number of these verbs form item-class-specific metaphorical extensions within the *ihjel*-network provided that it is, indeed, possible to identify enough semantic overlaps to establish classes. For instance, *gabe* and *grine* as well as *vokse* all predicate more or less unvolitional one-participant situations. However, it is a matter of debate whether this is enough to argue that they belong to the same semantic category.

## 9. Conclusion

The present study is by no means any sort of exhaustive account of the *ihjel*-construction; nor is it intended as such. If anything, it is more like the first fumbling steps towards a usage-based constructionist account of the phenomenon. While a number of usage-patterns have been identified in the corpora, and proposed as potential subconstructions, the most important observation in this study is perhaps the complexity of the *ihjel*-construction in that what formally appears to be a simple two-item phrasal verb covers several different patterns of use.

By far, most of the observed facets of *ihjel* could not have been accounted for in a construction grammar based on complete inheritance, since complete inheritance networks are flat and symmetrical in structure, meaning that each and every instance inherits its features directly from the central constructional configuration, the consequences of which are 1) there is no room for subconstructions in the constructional network because there is bound to be some recundancy between sub-

constructions and the central abstract construction, and 2) many usage-patterns will have to be left out, because, without subconstructions, all information is stored in the central abstract construction, which cannot contain conflicting or differing features which then will have to be filtered out. This would result in incomplete descriptions of many constructions, including the *ihjel*-construction.

The collocation analyses of the *ihjel*-construction indicate that its ontological status is much more complex than what a complete inheritance model could cope with, as it were. Just the fact that the verbs that appear in the construction display differing degrees of attraction shows that its instances are not symmetrically ordered. Some individual verbs, like *slå*, are highly attracted to the construction, forming item-specific subconstructions, while others form clusters, or classes, of semantic-types-based item-class-specific subconstructions, many of which display their own patterns of behavior. And serve their own specific communicative functions.

As mentioned above, while the results of this investigation are far from exhaustive, these observations will, hopefully, pave the way, so to speak, for future usage-based constructionist studies into the seemingly simple yet very complex two-element construction.

#### Notes

- <sup>1</sup> See the glossary of verbs in the appendix for English glosses of Danish verbs referred to in this paper.
- <sup>2</sup> The brackets before the slash indicate the form, while the ones after the slash indicate the content. The slash itself represents the symbolic relation between form and meaning.
- <sup>3</sup> I used Gries' (2007) *coll.analysis* 3.2, which is a software program specifically designed for collocation analysis, to calculate the collocation strengths in all three corpora.
- <sup>4</sup> An item-specific construction or subconstruction is one which is defined by the occurrence of one lexically substantive item, while an item-class-specific construction is one which is defined by the occurrence of a limited set, or class, of items.
- <sup>5</sup> Note that *ligge + ihjel* is often listed in dictionaries as a lexical unit which refers to the situation of a female animal crushing her offspring to death while sleeping. *Ligge* is not saliently attracted to *ihjel* in any of the three corpora used for this study. This does not mean, however, that the dictionaries are wrong. The corpora used in this study are general corpora, but *ligge ihjel* is a specific farming term and is probably much more productive in varieties of Danish pertaining to farming and agriculture. My guess is that *ligge ihjel* would figure much more prominently in a corpus based on these varieties of Danish.

- <sup>6</sup> Thanks to Ken Farø for pointing this out.
- <sup>7</sup> Interestingly, [*køre ihjel*] seems to follow the same stress distributional pattern as [*slå ihjel*], which may indicate that [*køre ihjel*] displays subconstructional salience.
- <sup>8</sup> This presupposes, of course, that we accept that the main function of [SUBJ V OBJ<sub>reflexive</sub>] is to predicate a SELF-DIRECTED SITUATION in which the AGENT and the PATIENT are realized by the same entity. The reflexive construction is, technically, an argument structure construction whose parent is the general transitive construction.
- <sup>9</sup> Whether or not the use of verbs of ingestion in the *ihjel*-construction exceeds these three verbs is a question that requires more empirical research to be answered.
- <sup>10</sup> If that is indeed the case then we are dealing with inheritance from what Boas (2003) calls a miniconstruction, which is the argument structure construction associated with the specific sense of a polysemous verb.

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Appendix: Glossary of verbs

analysere = 'analyze'	hakke = 'peck'	ryge = 'smoke'	sulte = 'starve'
anmelde = 'review'	hygge = 'have a nice time'	sejre = 'defeat'	svede = 'sweat'
arbejde = 'work'	intellektualisere = 'intellectualize'	skolde = 'scald'	syng = 'sing'
bagatellisere = 'trivialize'	jokke = 'stomp'	skyde = 'shoot'	søde = 'sweeten'
banke = 'knock'/'beat up'	kede = 'bore'	skygge = 'shade'	sørge = 'mourn'
behandle = 'treat'	klemme = 'squeeze'/'crush'	skylle = 'flush'	tale = 'speak'
beskatte = 'tax'	klippe = 'cut'	slide = 'wear out'	tie = 'remain silent'
bide = 'bite'	knokle = 'work hard'	slikke = 'lick'	tortere = 'torture'
blende = 'blend'	koge = 'boil'	slæbe = 'drag'	trampe = 'stamp'/'stomp'
brænde = 'burn'	konkurrere = 'compete'	slå = 'hit'	træde = 'step'/'tread'
danse = 'dance'	kvæle = 'strangle'/'suffocate'	smadre = 'smash'	træne = 'train'
diskutere = 'discuss'	køre = 'drive'	snakke = 'talk'	tvivle = 'doubt'
dolke = 'stab'	ligge = 'lie'	snappe = 'snatch'	tærsk = 'thrash'
drikke = 'drink'	lure = 'peep'	spare = 'save'	tække = 'beat up'
elske = 'love'	mase = 'crush'	sparke = 'kick'	tæve = 'beat up'
fortie = 'silence'	pine = 'torture'	spise = 'eat like a human'	tørste = 'thirst'
fryse = 'freeze'	piske = 'whip'	spørge = 'ask'	udpege = 'point out'
gabe = 'yawn'	producere = 'produce'	stampe = 'stamp'	underholde = 'entertain'
gasse = 'gas'	profilere = 'profile'	stange = 'gore'	visne = 'wither'
grine = 'laugh'	prygle = 'beat up'	stene = 'stone'	vokse = 'grow'
gå = 'walk'	riste = 'roast'	stikke = 'prick'/'stab'	æde = 'eat like an animal'

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