The Sweet Smell of Red - An Interplay of Synaesthesia and Metaphor in Language

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Abstract

The human senses are not only important to us in our daily interaction with the world but also in our daily communication. We rely so heavily on them that we do not notice how often we fall back on them when we talk. Not only do we use them in their literal version – which we might think would be the most common usage – we also use them metaphorically. Sometimes the metaphorical usage of a sense is even more frequent than its literal usage and which can even mean that a sense is used almost exclusively in its metaphorical form. These metaphors can occur in two versions: strong and weak synaesthetic. The first form has a sense related term in the target as well as the source domain, while the weak version only has such a term in the source domain. This paper is concerned with the occurrence of sense-related terms and their behavior in language. It will investigate how the adjectives that I consider the best representation for each sense occur in English and German, if they differ in their metaphorical representation from their literal usage and if tendencies can be found in regard to the senses they can co-occur with.

Die menschlichen Sinne sind nicht nur in unserer täglichen Interaktion mit der Welt, sondern auch in unserer täglichen Kommunikation sehr wichtig für uns. Wir verlassen uns in einem solchen Maße auf unsere Sinne, dass wir häufig nicht einmal bemerken, wie oft wir auf sie zurückgreifen, wenn wir sprechen. Wir benutzen sie nicht nur in der wörtlichen Form – welche wir wahrscheinlich als den normalsten Gebrauch betrachten würden – sondern auch in metaphorischer Form. Manchmal ist der metaphorische Gebrauch sogar gängiger und häufiger als die wörtliche Benutzung, was sogar bedeuten kann, das ein Sinn fast ausschließlich metaphorisch gebraucht wird. Diese Metaphern können in zwei Formen auftreten: stark und schwach synästhetisch. Die erste Form hat ein sinn-bezogenes Wort in der Ursprungsdomäne so wie auch in der Zieldomäne, während die zweite Form lediglich in der Ursprungsdomäne einen solchen Begriff hat. Dieser Beitrag beschäftigt sich mit dem Auftreten von sinn-bezogenen Begriffen und ihrem Verhalten in der Sprache. Es wird untersucht, wie die Adjektive, die ich als beste Repräsentation für jeden einzelnen Sinn erachte, im Englischen und Deutschen auftreten, ob sie sich in ihrer metaphorischen Repräsentation vom wörtlichen Auftreten unterscheiden und ob es Tendenzen gibt hinsichtlich der Sinne mit denen sie sich am besten verbinden.

1. Introduction

An important aspect of every human being in the interaction with the world are the senses, which we use constantly in order to deal with different experiences – we see things, touch them, taste them, smell them and hear sounds. However, when thinking of the human senses, it is not the most common connection for most people to think of language, too. But since the senses are of such importance to us, it is not surprising that the pivotal

function of our senses as receptors of the world is represented and reflected in our language and influences our perception. We express ourselves quite often by referring to one sense experience or another without noticing it, because they form such a big part of our everyday vocabulary.

Something else that most people are not aware of is a phenomenon called *synaesthesia* – neither in connection to the senses nor in connection to language. The term *synaesthesia* derives from the Greek *syn* = "union", and *aesthesia* = "sensation" and refers to the capacity of conjoining two sensory experiences while only one sense is stimulated, e.g. hearing colors, feeling sounds etc. In its original meaning, synaesthesia is a neurological condition which has just started to arouse the interest of researchers. Especially the question how rare or common this neurological condition is in a given population has brought about a heated discussion amongst them and estimations concerning its frequency vary significantly. Some scholars give absurdly low figures like 1 in 25,000 (Cytowic 2002), while others argue contrarily and acknowledge numbers as high as 1:200 (Ramachandran & Hubbard 2001). But whether the general phenomenon of synaesthesia is rare or not, it is not very uncommon to see cross-sensual aspects in language, mainly in the form of metaphors, therefore it is necessary to distinguish the neurological form of synaesthesia from the purely linguistic phenomenon. Some scholars have tried to prove that the origin of language actually lies in synaesthesia – some (see e.g. Ramachandran & Hubbard 2001) went as far as to say that even the link between a real world object (signified) and the word (signifier) which is used for it is in fact not arbitrary as commonly assumed, but rather based in synaesthetic experiences, but all this is highly debatable. Something that is not debatable is the fact that we use our senses all the time and that this constant usage in its primary function has leaked into our language. Sense-related terms not only occur in their literal version, thus, to extend sense experiences metaphorically is just a consequential step as they offer us a good basis to explain more abstract concepts in terms of those. Their literal usage corresponds approximately to their use in (synaesthetic)-metaphorical senses with variation between the different senses. Furthermore, they occur in sayings and idioms, because we rely so heavily on sense perceptions in our daily life. This paper being based on a M.A. thesis, however, is mainly limited to the investigation of the literal and metaphorical usage as they are more

frequent than idioms and which sometimes have a metaphorical basis anyway.

2. Synaesthetic and non-synaesthetic metaphors

The general idea behind metaphors has been investigated very thoroughly and from many different angles which has led to quite a lot of theories and assumptions concerning their form, their structure, their purpose etc. But this does not count for synaesthetic metaphors which do not seem to fit into certain patterns that have been discovered and work for other kinds of metaphors. Day (1995), one of the few researchers who has recognized their specialty, elaborates in detail why synaesthetic metaphors cannot be analyzed with the e.g. comparison theory, which is one of the most persistent theories and is based on Aristotle's interpretation of metaphors. Its basic idea, which has not been altered much over time, is that „metaphors are similes with suppressed or deleted predications of similarity" (Levinson 1983:148). In other words, a metaphor is actually an elliptical simile from which the word *like* or *as* has been omitted and which compares two elements indirectly. Just by taking the probably best known synaesthetic metaphor *sweet smell*, this theory shows to have flaws, as it would be transformed into *smell is like sweetness* – a sentence with little sense. The comparison of *sweet* or sweetness to smell is not possible as *sweet* is not defined clearly enough. The question 'the sweetness of x' will always remain as the concept of sweetness is just too broad. Neither can this problem be resolved by simply focusing on the metaphorical usages of *sweet*, because according to the Webster dictionary, *sweet* in its metaphorical senses is always positive. Asking people who read lots of thrillers will reveal that they would connect *sweet smell* to the smell of death and if that is pleasant is questionable. This reading can also be found in the corpus. As can be seen, the metaphor is far from being resolved, the definition of its parts has just been shifted. Thus, metaphor theories that have worked well for other kind of metaphors are not necessarily able to explain this very specific kind of metaphor.

A different approach was introduced by Lakoff and Johnson (e.g. 1980, 1999). According to them, the use and structure of metaphors allow an insight into human thinking, as „our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature" (1980:3). This

means that we understand concepts to a large extend in terms of other concepts, which raised the question about some primary concepts that form the basis for our metaphorical thinking and thus our understanding of more abstract things. Lakoff and Johnson argue that those basic concepts and with that metaphors are to a large part based on our bodily experience (1980:56). In other words, we structure reality by means of our experience as human beings in the world. Since we can only interact with the world the way we do, bound to or even limited by our body we cut up reality in a way reflecting this experience. So metaphors are dependent on human categorization and this is reflected in language. Other researchers come to the similar conclusion that our bodily experience is the basis for metaphors, but go a step further and assume synaesthesia to be the starting point. Marks and Bornstein (1987:50) argue that perceptual or cross-modal similarities are the basis for metaphors and synaesthetic expressions, because they see the origin of those in „perceptual equivalences rather than conceptualized or constructed verbal analogies". This view is also supported by Bretones (2001), who says that the basis for metaphors in general and synaesthetic metaphors in particular seems to be physical, synaesthesia is thus a physical basis for the cognitive processes we call metaphor. This approach via a physical basis seems very reasonable, because of the fact that at least a basic synaesthetic tendency can be found in everybody, which might be left from early age. It has been shown that every human being is born synaesthetic and that the ability to link different sensory stimuli is only lost with the years. Tests with seeing and blind babies for example, demonstrated that newborns will move their eyes toward and at the same time try to grab a sound in a dark room. They learn to differentiate between the senses only after a few months in which they have grown and are better accustomed to experiencing the world with the senses (Classen 1993: 56).

Two main roles for the conceptual domains in a conceptual metaphor can be defined: the source domain (more physical) and the target domain (more abstract). Following the cognitive linguistic view, Kövecses (2005) argues that metaphors are not a purely linguistic phenomenon, but also belong to „thought, social-cultural practice, brain, and body" (2005:8). He divides between primary metaphors and complex metaphors and says that „universal primary experiences produce universal primary metaphors" (2005:3). But would that not mean that metaphors based on sense experiences, i.e.

synaesthetic metaphors, would be the same everywhere as sense experiences are considered the same in every human being? Can culture really play a role in our perception? Starting with the second question: Yes, culture does seem to play a role. Of course, the differences between e.g. America and Europe are not that strong, but there are cultures that have a completely different focus when it comes to the senses or even perceive simple pictures in a different way. Generally speaking, the central sense in many countries and cultures revolves around vision. Western lifestyle is strongly based on visual experiences, a fact that is mirrored in our languages. In German as well as in English, and very likely in many other western languages, the first sense-related terms that occur within the 2000 most frequent words (based on the frequency list of the *BNC*) relate to vision as the central sense. Visual terms not only occur very high up in this ranking, they are also more numerous than any other sense-related words. Therefore, it is difficult for us to imagine a culture like the Ongee of the Andaman Islands structuring their world around the sense of smell, pointing to the nose when referring to 'me' (Classen 1993:1). Smell is the one sense which words tend to acquire a negative meaning, even though they might have started with a positive connotation or a neutral one. Smell just does not seem all that important to most Westerners. This shows, for instances, in English and German where only very few olfactory terms can be found. Another very prominent example relates to the sense of vision, probably the central sense in most cultures, a sense we rely on so heavily and trust in our daily life. Of course, everybody knows that it can be tricked in the form of optical illusions for example, but few people would assume that the perception of a simple picture of steps might be seen differently, influenced by such a simple thing as writing. When showing an image of steps to a person from a country where writing runs from left to right, this person will consider the steps as going upwards, while a person used to writing from right to left will regard them as going down (Deregowski 2000). This shows clearly how much culture does play a role in our perception:

writing from left to right → up
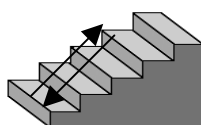
writing from right to left→ down

As Eysenck (1993:11) says, „perception refers to the way in which we interpret the information gathered (and processed) by the senses", interpretation being the crucial part in this process.

Synaesthetic metaphors exist in two forms, weak and strong. Interestingly enough, this distinction completely agrees with the neurological distinction of higher and lower (Ramachandran & Hubbard 2001), respectively strong and weak synaesthesia (Martino and Marks 2002). The most common form of synaesthesia (grapheme-color synaesthesia) is, strictly speaking, not a combination of two senses, but rather a cross-modal combination as color (vision) is interlinked with letters, words or numbers. Therefore this type of synaesthesia is called weak... Only the strong type, which is much rarer, combines two actual sense experiences like *seeing sounds* for example. Synaesthetic metaphors exist in those two forms as well. The difference between weak and strong forms is the target domain, this means, the structure of strongly synaesthetic metaphors combines a synaesthetic modifier with a synaesthetic head, while in weak metaphors only the source domain comes from a perceptual domain. The source domain has to be perceptual, otherwise a metaphor cannot be called synaesthetic. Differently put, in strongly synaesthetic metaphors the target as well as the source domain are both perceptual, while weakly synaesthetic metaphors only show one perceptual domain.

3. The senses

How many human senses are there? The answer is not that simple. The most common assumption is that there are five senses. These are vision, hearing, taste, smell and touch. We might consider this division as logical and natural, as we view the senses mostly as limited to receiving data from the world in a passive rather than an active way. This question, however, has been discussed by many people and is not a very recent one either. Day (1995:23) explains that this division of the senses into five is plainly culturally based and there are other cultures which acknowledge more senses, others less. Again, it was Aristotle who was involved in the question of the division of the senses and set the standard of five that we view as normal nowadays. A further division of touch into the additional temperature and pain perception is possible. Furthermore, Aristotle declared the ranking of the senses to be in the order of

sight being in the highest position followed by hearing, smell, taste and touch. This directionality is also supposed to be seen in the combinations of synaesthetic metaphors (Ullmann 1964). The general tendency in any kind of metaphor is that the mapping goes from a concrete to a more abstract meaning, which seems rather logical and is supported by the embodiment theory by Lakoff and Johnson (1980). This also applies for synaesthetic metaphors where the more abstract experience is described in terms of a more familiar or more common-sense impression. The reason Ullmann (1964) gives for this seemingly obvious direction is that such metaphors will be more convincing and sound more natural to us than the ones that go into the opposite direction. Those, he argues, will strike the reader or listener as somewhat unusual and are not as easily understandable. Werning (2006) argues even stronger and says that this directionality of the senses in metaphors is necessary as metaphors cannot be understood if the senses are turned around.

4. Data

For the search of words related to the senses the following corpora were used. The occurrences of the English terms were extracted from the *British National Corpus* (*BNC*), a corpus containing 100 million words of both written and spoken language from a wide range of sources. It represents a broad variety of British English from the later part of the 20th century (1980s-1993) and comprises texts from newspapers, academic writings and fiction, as well as transcribed formal and informal conversations. For the analysis of the German sense-terms I used the *DWDS* (*Das digitale Wörterbuch der deutschen Sprache*), as it is comparable to the *BNC* in its size and representation of the language. Like the *BNC*, the *DWDS* contains 100 million tokens of written and spoken language. The portion of spoken language is somewhat smaller, but otherwise it resembles the *BNC* in its choice of text representation of newspaper articles, prose and texts for special purposes.

In the next section, the most prominent adjectives that relate to the senses will be presented and analyzed. I am going to investigate the occurrences of each word in respect to its metaphorical and non-metaphorical usage. The metaphorical examples will be further analyzed, if they comprise a second

sensory term (synaesthetic-metaphoric) or if the node word is simply mapped onto any other, non-sensory domain.

5. Vision

The decision which words to choose for 'vision' in the analysis is rather difficult as there are so many. Similar to haptic terms, they occur very often among the most frequent 2000 words in English as well as in German. This analysis will therefore concentrate on the adjectives *dark* and *bright*, respectively *dunkel* and *hell* as the words for the sense of visual perception as they are the contrasts that can be perceived by every seeing person, whether they are strongly or weakly visually impaired, color blind or have normal vision.

5.1 *bright / hell*

The word *bright* occurs averagely often metaphorically (18 times out of 100) compared to the other sense-related words. It is also more or less average concerning its occurrence within the corpus as it comes up 0.053 time in 1000 running words, while the German term *hell* occurs fare more often with 0.085 times. It is interesting to note that *bright* only occurs three times in a strongly synaesthetic combination within all its metaphorical examples and those occurrences are with one senses only: hearing. All three examples describe some kind of music as *bright*: instruments or the melody of an instrument.

> **C9H 482** Acoustically, the 7EGNS sounds **bright** and clean, and considering this is a lightweight instrument
>
> **CK5 726** a clipped, thumping, feral streetbeat layered with **bright**, echoing drums; the production sheen of a
>
> **A1D 50** does much to set the tone of the piece, with its clouded dissonances and flurries of **bright** jazzy melody.

Hell on the other hand, which occurs 39 times, in a metaphorical form is far more likely to form synaesthetic combinations. Nevertheless, all eleven occurrences of *hell* show the same combinations as its English counterpart *bright*, which means that the only sense that can be combined with this word is hearing. The only difference between *hell* and *bright* is that *hell* does not only relate to the sound of instruments, but also to that of a human voice. The description of the 'voice' of an instrument is still more common. Because

bright/ hell only refers to the quality of the tone it does not have a very distinct connotation in either direction.

> **Ze 1988**... Conny") Froboess, als Kinderstar damals das *helle* Stimmchen einer heilen Papi- und Mami-Welt:

> **Be 1966**... Frage ins Ungewisse punktierend, den letzten und *hellsten* Ton anschlug. Verkehrt hat …

All other examples for *bright* as well as *hell* are simply weakly synaesthetic and can be combined in a number of categories. For *bright* the largest group among those includes the reading that would probably be the most obvious one for most of us – that of people described as smart. This concept can also be found in German, although not as often as in English. It is interesting that *bright* in the sense of intelligence is entirely positive, while *smart*, which has the same basic concept of being intelligent, can also occur negatively connoted.

> **A5Y 943** The incompetent, therefore, are the bookish, the *smart* ones, those who have the theory but not the

> **FYW 768** It is, however, also important to recognize the potential of other *bright* people who can be trained

> **ARC 942** *Bright* pupils should be encouraged towards Oxford (or Cambridge) and a steady stream began to

It is different with *bright ideas* though. Here the connotation can go into both directions, especially when the phrase is used sarcastically.

> **AC3 56** three quid getting these developed, so no more of your *bright ideas*, messing with people's cameras.

> **F9X 468** Now he'll come up with all sorts of *bright ideas* like tying me up or pumping me full of tranquillizers

> **HPC 391** For employees at all three sites have scooped some of the biggest-ever awards for their *bright ideas* to boost efficiency.

In this respect the English term differs from the German word, as *hell* in the meaning of intelligent is always positive and the second form – *bright idea* – has no exact counterpart in German that is linked to light.

> **Be 1991**... muß schon eine absolute Eliteklasse sein, oder? Die *hellsten* Köpfe, die es je an dieser ...

> **GE 1999**… für die nächsten fünfzig Jahre lautete: » Ein *heller* Kopf nimmt Dr. Oetker. «. …

The second group relates to the future and is exclusively positively connoted, in English as well as in German. Here it is interesting to see the contrast of *bright future* and its opposite *dark future*. Seemingly, the general tendency toward the future is optimistic, as quite a number of examples (65 altogether in English) can be found for *bright future* as opposed to only two examples with a pessimistic view toward the future. This high number of occurrences of a *bright future* versus a *dark future* is not as pronounced in German, but can be found nevertheless. The idea behind a *bright future* is that of a favorable and auspicious time, which will fulfill all hopes and wishes. Closely linked to that is also a period in the present time that is *bright* as it has the same idea of everything working out according to plan or even better.

> **CB2 691** Copsey and Gareth Llewellyn improving all the time, we could just have a ***bright future*** ahead of us.

> **Wi 1982** Ihr Bekennermut, ihre ungebrochene Zuversicht verbürgen eine ***hellere Zukunft***. Nach dem Urteil

The next usage is restricted to the English word, that of *bright spot*, which appears to be a rather frequent expression. A *bright spot* is always the highlight, the best part of something. It is remarkable that there are various contexts as it can relate to a point in the future which is desirable to reach as fast as possible, but also to moments in time in the past or the present. This phrase shows on the one hand that *bright* can be used metaphorically with its primary sense – spot being a light that can be seen – on the other hand it demonstrates that it can also be used literally in exactly the same structure. Although it needs to be noted that the metaphorical version is by far more frequent, since in the 38 occurrences of this phrase in the *BNC* it can only be found three times with the literal meaning.

> **A0G 1922** plants which spend the summer in darker corners might prefer a ***bright spot*** near to the window.

> **K5A 1441** The only ***bright spot*** was the news that Lewis should be fit to bowl in the final Test.

The literal forms of *hell* and *bright* can be divided into two groups. On the one hand there are colors that are bright and therefore probably very eye-catching. On the other hand there is light in general that is described as bright.

> **A17 1119** of the rape plant (you'll have noticed the ***bright yellow*** flowers now covering so many fields).

K99 379 She likes to wear **bright colours** too and would love to see emerald green, cobalt blue and purple tights

A0R 2397 When Sara woke it was light, the **bright light** of late morning.

Ge 1983 ersten Blickkontakt zur Mutter auf, weil es sich nicht durch **helles Licht** geblendet und erschreckt wird.

As could be seen, there are differences in the use of the English and the German word. In the following aspects *hell* differs from *bright* substantially, as it relates to negative emotions, which seems to be mainly impossible with *bright*. In German it is not always the core meaning of a shiny light that even underlies the metaphors, but *hell* is simply used for emphasis, describing something as very intensive. In this sense *hell* tends to co-occur with emotion words like *panic* ("helle Panik"), *outrage* ("helle Empörung") or *madness* ("heller Wahnsinn").

Ge 1999… Weise vor die Tür gesetzt habe, daß **helle Empörung** bei den anderen Gästen aufgeflammt sei. …

Be 1986… einfach so auf der Straße rumlaufen. Das ist der **helle Wahnsinn!** Am Alex hängt ein Steckbrief. …

To sum up the analysis of *bright/hell*, it can be said that *bright* is most often positively connoted, although a slightly negative meaning is possible, but rather seldom. The literal use of a shiny light can be found as the underlying idea in basically all metaphorical instances – as something is enlightened. This is not the case in German, where it can also be used as an intensifier. Furthermore, it is easily possible to create and understand metaphors that have *bright* linked to its primary sense, the sense of vision. Synaesthetic versions with *bright/hell* are also likely to come up, but it seems as if only one sense can co-occur with them: hearing.

5.2 *dark / dunkel*

The next two terms are really fascinating as the usage of the English word differs significantly from its German counterpart. *Dark* occurs only 17 times metaphorically in total, while *dunkel* is used almost in half of its occurrences in a metaphorical sense. Also the number of occurrences within 1000 words is deviating with only 0.058 times in contrast to 0.086 times in German.

Although we might consider sense experiences as neutral, it is true that the words used to express those experiences are (sometimes) not. Some sense-

related terms which seem perfectly neutral in their literal version deviate in their connotation as soon as they are used in a metaphorical setting. This is very much the case with the two words at hand. In their literal form both terms relate mainly to the lack of light or certain shades in color and are thus unbiased, very few literal examples display the negative connotation that predominates in the metaphorical instances, and those are mainly limited to German.

> **A0G 2756** Snowdrops are shady favorites for the **dark days** of late winter
>
> **ADA 1650** The girl opened a door with a Yale key and they entered a **dark room**.
>
> **Be 1980**... Er ist schön. Seine **dunklen Augen**. Die tiefschwarzen Augenbrauen. ...
>
> **Be 1980**... Dann war er wieder allein, bedroht von der Feindlichkeit der **dunklen Wohnung**, die ihn von allen

This is a surprising finding as humans are unable to see clearly in darkness, thus we are devoid of the one sensory perception that we trust in most and which is addressed first in our western culture. Because of this we perceive darkness as something that makes us uneasy and therefore, it is not a coincidence that good and evil or heaven and hell are always depicted as *light* versus *dark* – *dark* being the bad part. In view of this it is astonishing that so many literal examples are neutrally connoted.

Both, *dark* and *dunkel*, are not very productive when it comes to strongly synaesthetic combinations, while in German only three could be found, the English examples offered even less with only one occurrence. The senses that they co-occur with is not the same. English displays a rather unusual combination of touch and vision, which is not easily accessible. If only the metaphor *dark feel* was taken without context, it would be difficult to figure out the meaning:

> **JYD 3463** head thrown back, eyes closed, surrendering to the hot, **dark feel** of his mouth sucking at her nipple.

The German examples are easier to understand as here vision is combined with hearing, a combination which is used by children till the age of about ten to refer to tones and thus, might still be remembered in later age more easily. It is very interesting that two of the three examples that came up within 100

random concordance lines show *dunkel* together with *weich*, both terms in connection with *dunkel* are thus strongly synaesthetic (*weich* (touch) + *dunkel* (vision) and *dunkel* + *Stimme* (hearing)), even if they would not co-occur in a triple synaesthetic combination as they do here.

> **Be 1980** Statt dessen hörte er sich mit einer einladenden, **weicher** und **dunkler** gewordenen **Stimme** sagen:

> All strongly synaesthetic examples go against the general tendency of the other metaphorical findings with *dunkel/dark* to be rather negative, since they are entirely positively connoted.

The weakly synaesthetic metaphors in English and German are similar and can be grouped into three subcategories. However, in the German examples two more possible usages could be found that did not occur in the English examples. The biggest group for *dark* as well as *dunkel* relates to time, describing difficult and bad periods or moments. Those are entirely negatively connoted and refer quite often to times of war and other political events. In German this phrase can be found in a broad variety of combinations with time expressions, while English only showed one form: *dark days*. Since in German it is rather often linked to the times during or after the war, a first guess was that it might be related to the fact that Germany suffered through two terrible wars which is reflected in texts from later times as well. But since Britain was similarly affected by the war, this explanation cannot be the whole reason for the lack of *bad times* reflected in languages and thus the lack of representation in the corpus. The only other reason that might explain this overlexicalization in a German corpus of *dunkle Zeiten*, is that Germany is as the instigator of World War II more often reminded by other countries of its role in history. In addition, it might also be the urge for the Germans to keep remembering this particular time to avoid a repetition of history, or the general tendencies that seems to be present in most Germans to see everything pessimistically.

> **CBC 14071** to play ball with Senator Joe McCarthy's communist witch-hunt in the **dark days** of the Fifties.

> **Ze 1963**… Auseinanderbrechen unseres Volkes an den Fragestellungen über die **dunkle Zeit** vor 1945 zu …

Very closely related is the second category which only occurred in German and also stands rather often in connection to politics and belongs into the category of racketeering, a term that even translates into German as "dunkle Machenschaften". Similar to this are the findings in English of *dark secret,*

although they do not relate to politics but rather to individual people. The metaphor is easily understandable as something that is in the dark cannot be seen and those secrets need to stay in the dark so that misdoings are not revealed or a person's reputation is not lost etc.

> **Ze 1981**… Mensch Georg Hosch, dessen Einfältigkeit von anderen für *dunkle Geschäfte* ausgenutzt wurde. …

> **Wi 1994** sich zu schade sein, *dunkle Machenschaften* anderer zu unterstützen, gegen das falsche Spiel

> **CCM 761** Particularly because they knew these were *dark secrets* not to be shared with anyone.

Two more categories can be found of which one only seems to exist in German. They are very different from each other; the first one can be brought into connection with those dark secrets, while the other one in some way relates to time, but is entirely different from the above analyzed form. In those examples where a person is described as *dunkel,* this person is evil and is up to mischief, this counts for English and German in the same way:

> **Ze 1982...** Doch da passierte es. Drei *dunkle Gestalten* waren plötzlich um ihn. ...

> **CEK 1952** But I suppose everybody has a *dark side*.'

The last usage that could be found in the random concordance lines cannot clearly be brought into context with the overall negative undercurrent that is present in every other weakly synaesthetic metaphorical form, it describes the *dark beginning*. This beginning is simply *dunkel* because it is a part in history, so far away from the present, that not much is known about it. Especially the contrast to the *bright future* in these examples is really fascinating:

> **Wi 1983**… die Geschichte - als Sphäre der *dunklen Ursprünge*, der *hellen Zukunft* …

All weakly synaesthetic examples have something in common: people seem to be afraid of the dark and thus connect a lot of things that cannot be explained or are terrifying in some way – the very usage that would be expected for the literal occurrences. Hence, all in all in most metaphorical cases *dunkel/dark* is connoted negatively, conveying this uncertainty and the loss or partial loss of the most important sense in our culture, while the literal version does not necessarily relate to something scary, but can simply refer to the lack of light.

A strongly synaesthetic combination is possible for both words, but seems to be very restricted.

6. Hearing

Hearing is the next highest sense in the ranking by Aristotle. Even though there are many words for this sense experience, the two most obvious ones are the antonyms *loud/laut* and *quiet/leise*, although the choice of the second English term was again more difficult since there are more than one very accurate translation for *leise*.

6.1 *loud/laut*

Both words – the English and the German one – occur similarly often. *Loud* comes up 0.023 times and *laut* 0.020 times in 1000 running words. Completely different from the English term is, however, that *laut* occurs metaphorically (14 times), not very often, but it does occur. Although, no strongly synaesthetic metaphors could be found. *Loud* only showed two metaphorical forms and they are both strongly synaesthetic combining hearing to vision. Generally speaking, the sense of hearing seems very resistant against synaesthetic combinations and against metaphorical forms in general. Classen (1993) argues that the sense of auditory perception is too specific that it is impossible to use it metaphorically at all. My analysis showed a different outcome. However, it is really difficult to tell the metaphors apart from the literal examples as often they could be used in the very same syntactic structure in a literal or metaphorical form. The metaphorical instances of *laut* can easily be summarized into one underlying concept: something is really noticeable. In most of them a person or a group of people is trying to catch attention for different reasons.

> **Ge 1901**… benutze diese Gelegenheit nicht, um mit **lauter Stimme** die Einrichtung zu kritisieren …
>
> **Ze 1974**… nicht allein durchführen, weil ich die so **lauten Stimmen** des französischen Volkes höre und verstehe

In the second example, it is not the quality of the voice, but rather the manner in which something is expressed that is featured with *laut*: attention catching. This underlying idea of catching attention also counts for the strongly synaesthetic form with *loud*, which describes clothes as *loud*. Just by reading

the concordance line it is very easy to get a picture in the mind's eye of a person wearing this kind of clothes, especially with the additional information of *bright tie*.

> **A0U 2385** She was seen with a man in a ***loud checked*** suit who favoured bright ties.

Very differently from all other sense-related adjectives is the fact that *loud* and *laut* do not seem to have a specific connotation. Of course, they can occur with rather dramatic words like *scream, wail* or *cries* etc. but those words are by themselves dramatic and not because of the combination with *loud/laut*. *Loud* in itself is neutral – it is never negative or positive without further information conveyed by the following noun. A *quiet scream* is not less terrifying as a *loud scream* can be. The quality of the sound is not changing the connotation, thus, *loud* is only additional information rather than carrying the connotation and therefore not important for the overall mood. A further indicator for this neutrality is that it can be combined with any kind of sound – negative or positive. It is not limited to the human voice, or music, or animal noises, or other noises and sounds.

> **EA5 31** his sudden exclamation of horror had started a ***loud wail*** and reduced Carrie to a fit
>
> **H0F 1758** Perfectly preserved, and spoke in ***loud, happy voices***.
>
> **Ge 1993**… Gedanken durch den Kopf, wie ich beginnen wollte, da rief eine ***laute Stimme*** durch den Saal …

Generally speaking, both forms of *loud/ laut* – the literal as well as the metaphorical one – have the function of conveying the idea of something being noticeable. As the syntactic structure does not show any differences, it is in some cases rather difficult to say if a sentence really is metaphorical or not – the border between metaphoricity and literal use is very small sometimes.

6.2 *quiet/leise*

These two words behave very differently, not only in the number of occurrences. L*eise* occurs 0.107 times within 1000 running words and thereby more often than most other terms that are analyzed and very differently from the English term *quiet*, which only occurs 0.060 times. While *quiet* shows no synaesthetic combinations and hardly any metaphorical occurrences (5), *leise* comes up almost 50% of the time as such and within these in two different

synaesthetic combinations: with touch and with smell. The general underlying idea of all metaphorical instances of *quiet* and *leise* is the same, it is that of inconspicuousness, something is there, not in your face but more in a very subtle way.

> **GVP 1515** thanks to Jack's decisiveness and air of **quiet authority** to which everyone willingly submitted.

> **HGV 2462** So this is your secret! the old lady said in a tone of **quiet satisfaction**, a smile on her face.

Those examples given above are representative examples of all metaphorical occurrences with *quiet*.

The target domains with *leise* differ substantially among themselves. This concept of inconspicuousness can be seen more clearly in some than in others. The word *leise* is in no way bound to the mapping of a specific semantic field, but can occur with negative as well as positive ones. And similar to the other hearing related words it does not much function as the carrier of the overall connotation within the whole phrase. However, the combination of a noun with *leise* is nevertheless more meaningful than with *laut*, where it could be argued that in fact most, if not all instances are literal and simply stretched a bit in their application.

> **Be 1978**... Ich habe gebeten, sich kurz zu fassen", sagte er mit **leisem Vorwurf** in der Stimme. Daß Film und

> **Ze 1996**... nie auf hohem Roß ritt, hatte nur einmal Grund zu **leisem Triumph**, als er sein Hauptverdienst in ...

An interesting phrase that occurs a number of times in my set of examples is the expression *auf leisen Sohlen*. This phrase is one of the very few that can be argued to be literal or metaphorical, although in some cases it can only be the latter. The problem I see here is, that soles cannot be quiet or loud by themselves, they can only produce sounds when somebody is walking on them. I would nevertheless apply to them the attribute of being quiet or not, as some soles make sounds while somebody is walking and others do not. Hence, the phrase *auf leisen Sohlen* can be literal as in the following example, because somebody is walking in a quiet manner:

> **Ze 1989**... geben und tritt auf **leisen Sohlen** an sein Bettchen. ...

> **Ge 1986**... wenn man nach Beginn des Gottesdienstes auf **leisen Sohlen** zu einer der letzten Bankreihen ...

A very obvious example for the opposite, a clearly metaphorical form, is shown here though:

> **Ge 1999**... beide nicht zufällig US-Amerikaner. Denn auf ***leisen Sohlen*** hatten sich die USA langsam aber ...

> **Ze 1996**... findet Mommsen "einen Nationalismus auf ***leisen Sohlen***" wieder. Er vertritt allerdings ...

In the first case it is of course not possible that a country moves around on soles and even if the people are meant, this phrase cannot be literal as this would imply that every single US American is walking in the same way, to exaggerate. Thus, the idea is simply transferred, making the whole phrase metaphorical. In the second case the same applies, although here it is not possible to extend the idea of nationalism to people directly as it is more of a mental attitude that is creeping into a society.

As mentioned above, the strongly synaesthetic forms combine hearing and touch, and hearing and smell. Compared to the general occurrence of metaphors with *leise* they are rather rare. The combination of hearing and smell seems strange at first, but both metaphors are easily comprehensible and do not sound made up. A *leiser Geruch* seems to be a smell that is not very strong, but rather hidden, though nevertheless perceivable. In both cases found in my set of examples the underlying smell is disgusting, but it is likely that nice smells could equally easy be brought into connection with *leise* as well.

> **Ze 1998**... des Seewassers vermengte sich mit dem ***leisen***, aber konstanten ***Geruch*** von Schwefel und ...

> **Ze 1999**... den Bänken, die mit Plastik bezogenen Haken, den ***leisen Gestank*** nach Schweiß und Gummi, das ...

The other strongly synaesthetic form is the following, which appears to be more common and combines hearing and touch.

> **Ge 1983**... haben, eine Kraft oder einen Strom, ein ***leises Kribbeln und Vibrieren***. Sollte das der ...

> **Ge 1967**... gestellt werden, diese fällt natürlich bei der ***leisesten Berührung*** um. Bändertour - Es werden ...

As could be seen from the analysis of *quiet* and *leise*, there is a very obvious difference between these two languages in regard to their metaphorical behavior. While the German term can occur very frequently in both forms, this

is not possible for the English word. These findings do not conform to the differentiation suggested by Ullmann (1964), who argues that hearing belongs to the higher senses and is therefore not as often mapped metaphorically onto other aspects. In the case of the English term he is right of course, but the German word behaves very differently, thus, here already the claim of a universal tendency in synaesthetic metaphors shows to be difficult.

7. Smell

The analysis of smell-words is not easy as there are so few words in the first place that are solely linked to this sense – in English as well as in German. For the analysis of the positive part of my antonyms I decided on *fragrant*, which seems to be the best counterpart to the German *duftend*, but occurs far less often: only 0.0027 time, while *duftend* and *stinkend* both occur 0.011 times in 1000 running words. *Fragrant* does not occur linked to other senses, it is still more frequently used in a metaphorical way (ten times) than *duftend* (two times).

7.1 *fragrant/duftend*

Generally, in its literal form *fragrant* can be divided into two subgroups – the smell related to nature and the smell related to people. Identical to all of them is that *fragrant* never occurs negatively connoted, an aspect in which the English term differs from its German counterpart. *duftend* seemed so clearly positively connoted that it was surprising to find very obvious examples with a negative meaning. It needs to be mentioned here that all four of those examples are taken from texts that are rather old (between 1901-1920), thus it seems as if this combination is not possible any longer, which explains why it appeared so strange. All in all, the use of *duftend* decreased with the years that it is now not even half as frequent as it was around 1900.

> **Ge 1906**... - eine an der Schwanzwurzel gelegene, einen sehr ***übel duftenden Stoff*** abscheidende Hautdrüse ...

> **Be 1920**... zerbrach man einen Stengel, floß wie Eiter ein weißlich-gelber, ***übel duftender Saft***. An trägen...

> **Ze 1916**... das grausamste Blut. Ja, dies Mitleid an einem ***süß duftenden Leichenfeld*** ist das wahre, ...

The smell of flowers and plants in the woods is by far the largest subgroup and transfers the idea of freshness and harmony, it is interesting that while those examples are metaphorical with the English word, in German they belong to the category of literal occurrences.

> **ANR 779** It would be too much to say that by 1870 Paris had become a *fragrant bower* — few cities
>
> **CK5 2826** taking advantage of the dying minutes of daylight, feeds on flower nectar in the *fragrant garden*.
>
> **Ge 1977**... mit Büscheln der kleinen weißen und nach Jasmin *duftenden Blüten*.

The other subgroup also exists in German: the fragrant of people or people related things like food. To find examples with the smell of food is not surprising as there are words that can refer to both senses equally: flavor and aroma. The senses of smell and taste are biologically so close that it appears to be a logical strategy to use the same words in a literal form, while other words are metaphorically used to combine both senses.

> **ASE 532** She withdrew the *fragrant dish* from the oven, and put it, still sizzling, before the bedazzled sexton. **CDR 2204** A herbal cream or *fragrant oil* gives a soothing massage
>
> **Ge 1915**... im Wasser. Liefert ohne jede Mühe kraftvollen, herrlich *duftenden Kaffee*! Keine Kaffeemaschine.

In the cases of *duftend* and *fragrant* it is very clear that the sense related word is actually the bearer of the connotation in the instances where a clear connotation of the metaphors or even the literal versions can be found. This connotation is than mostly positive.

The two metaphorical forms of *duftend* are both strongly synaesthetic, displaying two sense combinations (vision and hearing). While the smell-hearing metaphor is somehow understandable, it is difficult to make sense of the vision-smell one as it is hard to imagine a smelling light. Nevertheless, in both cases the positive attitude of *duftend* appears to there as well.

> **Be 1983**...Der A-Ton aus der Stimmpfeife von Lehrer Rumposch dringt durch die *duftende Stille*, und ...
>
> **Ze 1921**... Haut ihres Gesichtes erschien wie ein Gewebe aus *duftendem Höhenlicht*, sie lächelte mit einer ...

The metaphorical examples of these two sense related words show again differences between the languages. Both of them are rather restricted when it comes to metaphorical usage, but the metaphors they form are not much alike.

7.2 *fetid/stinkend*

In the way *fragrant* and *duftend* are (mostly) positive, *fetid* and *stinkend* are not. Both occur metaphorically even though there overall occurrence is more limited: *fetid* is so rare that all examples (53 in total in the corpus) had to be chosen, a random selection was therefore not possible. The number of their metaphorical occurrences is nevertheless not the lowest number altogether, even if it is below most other sense-related words with 15 in the German examples and nine in English. The more unexpected it is that even within those few occurrences in English a strongly synaesthetic combination comes up, linking smell to vision.

> **HWC 890** A ***fetid light*** blazed from Old Saul's sockets.

This combination is rather surprising as I would have assumed that smell and taste are so much stronger linked that only such a co-occurrence would be possible in the very restricted combination possibilities with smell in general. However, the German term also shows one strongly synaesthetic combination which is not including taste, but hearing.

Although it cannot be clearly stated if the *fetid light* in the above mentioned concordance line is positive or negative, I would argue that it is the latter, because of the following term *blazed*. A blazing fire appears to me like a fire of great strength and destructiveness. And of course, the general negativity of the term *fetid* needs to be taken into account as well. All other metaphorical occurrences are more obvious in regard to their connotations: they all convey awfulness and decay and are mainly describing conditions of people which were brought about by other people or which they will bring about others.

> **CR9 1261** secretary, stepped into this ***fetid atmosphere*** on April 30th when he chaired the first of four meetings

The synaesthetic version in German is very obvious in regard to its connotation, which is clearly negative. This counts for all other German metaphors as well. Generally, all metaphorical instances relate to bad or negative features like corruption, hate, lies or avarice and similar things. It is

interesting that all metaphorical forms are more or less restricted to the years 1900-1938, which goes completely against the development of the word in regard to the general number of occurrences. While its antonym *duftend* decreased in use toward recent times, *stinkend* increases, but has in the process seemingly lost the ability to be used metaphorically, at least no examples can be found within my 100 concordance lines.

> **Wi 1917**... unbelehrbar der Meinung bleiben: daß auf dem gen Himmel *stinkenden Sumpf von Faulheit* und ... **Ze 1923**... im ganzen von einem *stinkenden Geiz*. Alle in diesem ...

> **Ze 1938**... Anklageschrift als eine zum Himmel *stinkende Lüge* -. - ...

There are no other sense related pairs that have such a strong and obvious connotation as those four smell related words. The finding of synaesthetic combinations appeared rather strange considering that taste is not one of them, while the other way around – taste being in the source domain – is so frequent, which will be explained further in the following.

8. Taste

The words that have been chosen for the taste related word analysis are *sweet/süß* and *sour/sauer*. *Sweet* (0.035 times within 1000 running words) occurs far more frequently in the corpus than *sour* (0.0062 times) and is similar in this aspect to the German term *süß* (0.031), while the German *sauer* differs from its counterpart as it occurs quite more often with 0.016 times.

8.1 *sweet/süß*

The metaphorical use of *sweet* is compared to other sensory terms very common in English. *Süß* is even more frequently used in a metaphorical way then *sweet* and within those it occurs very often in combination with other sense modalities: in English 60 metaphorical against 40 literal uses could be found, while in German 77 were metaphorical and only 33 displayed the primary usage (taste). In both cases, the metaphorical version is obviously much more common than the literal one. Otherwise some substantial differences can be discovered. Out of the sixty concordance lines that show a metaphorical usage, only fourteen display strongly synaesthetic metaphors in English, which mostly display taste-smell combinations. Out of the four other

occurrences, combining taste-hearing, two describe general sounds including the human voice.

> **CDC 59** She had a lovely ***sweet voice***, and always had to sing without piano accompaniment, for she alone knew **GW8 2168** Then he remembered her ***sweet voice***, and the touch of her fingers on his face, and her warm breath

Even within a strongly synaesthetic context *sweet* can still refer to a person (23).

> **A0D 1304** She smelled warm and **sweet**, like a marshmallow.

This application of *sweet* to a person can also be found with the German word, although in a different way. In more than 30% of the time, *süß* is taken for the description of a person, and not surprisingly, some others describe animals. Here a great difference can be seen from the English term *sweet*, which is also taken for the description of people, but in English it mainly depicts the personality of a person as positive and nice, while in German *süß* is rather used to explain the outer appearance of somebody or something.

> **AK9 321** One said last week: 'She's such a ***sweet person*** that one day when she thought we looked tired and
>
> **72 Be 1994**... war seit vier Jahren verheiratet, hatte einen ***süßen*** kleinen ***Sohn***, Marcel, den Lisa Marzl rief. ...

The strongly synaesthetic usage differs significantly between English and German. Of course there are some combinations of taste-smell in German as well, but the more popular linking is taste-hearing.

Whenever smell is used in combination with *sweet* a general tendency can be seen of a positive context, most often it occurs in relation to the *sweet air* outside. In only one instance a negative context could be found describing a *sickly sweet smell*, something that might be expected to come up more often.

> **A1U 141** Matthews was pumping vinyl acetate into a 10,000-gallon vat, wreathed in its ***sweet, sickly smell***:
>
> **A0L 3399** her just three minutes to work this out as her antennae fluttered in the sudden ***sweet smelling breeze***.

This is actually the case in German, in those few taste-smell metaphors a trend toward a negative meaning can be seen.

> **Be 1985**... wie' s gerade kam. Die Luft war schwer vom ***süßen Schweißgeruch*** der Lust und laut vom ...

> **Be 1985**... Laken, nach feuchten Federbetten und nach dem stechend *süßen Duft* der Nachttöpfe. Aus den …

In English the taste-hearing form mostly relates to the human voice, this is the same in German, just more frequently. A difference is though, that *süß* is also used to describe the voice of an instrument or a bird. It is not as limited in its application as it is in English.

> **GW8 2168** Then he remembered her **sweet voice**, and the touch of her fingers on his face, and her warm breath

> **FSE 2546** That's a **sweet sound** coming out of your mouth, Khan.

> **1905**... - Konzert, und alsbald erhob Meister Joachims - Violine ihre **süße Stimme**. Dann setzte der Hof- ... Be **1983**... -. Rumposch hält uns an, das liebwerte - mit **süßer Stimme** zu lesen. Er selbst ...

> **Be 1925**... ein Vogel mit seiner **süßen Stimme** füllte, wider ihn. ...

In English the other very prominent metaphorical use of *sweet* and smell is the phrase – *the sweet smell of success*. In this sentence the whole phrase is taken from its literal use of smell to relate to success in a completely metaphorical sense, thereby describing success as having the property of some positive smell.

> **HJ4 102** A rush of good fortune coupled with the **sweet smell of success** makes Wednesday a brilliant time to

> **K23 4111** Later on the dog breeder enjoying the **sweet smell of success.**

It is interesting though that this metaphor will most certainly be understood as referring to a positive aspect rather than some negative smell, probably because of the positive connotation of success, even though smell related words including smell itself tend to acquire a negative connotation in English with time. Classen (1993:53) gives here the example of *to stink*, which she argues simply meant to emit any odor and was not limited to its current use of giving off a bad odor.

Regarding the weakly synaesthetic metaphors with *süß* only one underlying concept can be found: it almost exclusively describes something as nice and beautiful. This could already be seen in the examples that describe people and because of these features it can also be applied to ensnare people and turn something negative around. This furthermore explains why dreams are *süß* as well, as they are not real and just show an imagined picture of reality (in great and day dreams at least):

> **Wi 1983**... verstand es, der Majestät seine vergiftete Verehrung in so ***süßen Komplimenten*** zu servieren, ...

> **Wi 1988**... Er wurde so schmerzhaft wie jedes Erwachen aus einem ***süßen Wunschtraum***. Was sollen ...

8.2 *sour/sauer*

Here are two terms that mean the same but are used quite differently in the number of their occurrences, while *sour* is even more frequent in a metaphorical form than *sweet* with 72 occurrences, *sauer* is very limited in this respect (only 13). But generally speaking, the metaphorical concepts of both are almost indistinguishable. In both cases strongly synaesthetic combinations are difficult, therefore only three (English) respectively one (German) occurred. Those however are identical, linking taste and smell and have a negative tinge:

> **A1G 374** A ***sour smell*** of overcrowded humanity hung in the air.

> **2 Ge 1967...** Das Fleisch wird mürbe, und es tritt ein ***saurer Geruch*** auf. Schwefelwasserstoff ist ...

The weakly synaesthetic occurrences can be combined into two subgroups: relating to people or their appearance and relating to fruits. The first one shows some subtle differences between the languages, while in English *sour* can be used to refer to the personality and the appearance, in German only the second reading is possible, but is brought about by a bad temper or anger about somebody or something.

> **AP7 999** of his surviving grandfather, a 'severe and ***sour old man'*** who lived with two of Rowlands's aunts in an

> **K95 105** Athelstan noticed the ***sour smile*** on the chaplain's face.

> **Ge 1985**... Heuchler. Sie machen ein ***saures Gesicht***, damit jeder merkt, ...

> **Wi 1984**... motiviert werden. Der Kellner macht eine ***saure Miene*** zur salzigen Suppe, bringt keinen ...

The second subgroup might appear strange at first. Why should fruits be described as *sour*, but not meant literally? It is the case here that the literal understanding of the whole phrase is transferred onto the metaphor, *sour* fruits are not liked and most people will pull a face when biting into something *sour*. This is very likely the underlying idea of the idiom *sour grapes*,

which means that something negative or critically is said because somebody is jealous. A further interpretation seems to be frustration: something is not working out on the part of the speaker. This idiom *sour grapes* is based on the fable *The fox and the sour grapes* in which the fox convinces itself that the grapes, which it wanted to eat but could reach are not ripe anyway and therefore sour.

> **ARJ 3245** you expect is a certain amount of resentment or **sour** grapes between October 1–4 and, frustrating as

In German it is also an idiom that contains the metaphor of a *sour fruit*: *in den sauren Apfel beißen*. The meaning, however, is completely different from *sour grapes*. It refers to something unpleasant, a difficult situation for example, but the person who bites into the sour apple has decided to go grudgingly through with it.

> **Ge 1939**... gefallen. Da half es nichts, wir mußten in den **sauren Apfel beißen**. Als die Nacht kam, war ...

The literal examples of *sour* and *sauer* are identical and mainly relate to food or drinks. Therefore a further analysis is not necessary.

> **FEP 1278** as I dipped my hand into the all-too-familiar breakfast of slightly **sour rice** and salted fish.

> **Be 1988** und Salami, Gehacktem, kleingeschnittenen Zwiebeln, Butter, Brot und **sauren Gurken** stehen.

9. Touch

Haptic words, including words for temperature perception, are very frequent and easy to find in German as well as in English. They can even be found rather often among the most frequent words – their distribution here is actually far greater than that of any other sense.

9.1 *soft/weich*

Soft and *weich* are very much alike in a number of ways. The one major difference is their occurrence, as *soft* appears 0.590 times in 1000 running words and thus far more often than *weich* with 0.017 times. Differently from other sense-adjectives, *soft* does not occur metaphorically in its primary sense in regard to touch – there is a clear distinction between the metaphorical and

the literal instances in which the word mostly occurs. The same is true for *weich*, even the number of metaphorical occurrence of both words is with 62 in German and 60 in English very much the same. Also the occurences of *weich* and *soft* in regard to the linked senses is in sync as both co-occur with hearing and with vision.

Vision and *soft* is a very common combination. This is reversed in German, where hearing outnumbers the visual examples. In the English examples it is mostly light and colors that are depicted as *soft*, thus a resemblance to the literal examples of the visual term *dark* can be seen, which also refers to the lack of light or a shade in color. The second form of soft colors cannot be found in German, where clearly a preference for structural elements like forms exists. It is interesting that in one English example a color is linked to *light*, thus combining both elements that are most frequent in relation to *soft*.

> **HGG 1827** shadowed under the archway, smoothed by the **soft grey light** beyond, riding onward towards some

> **JY4 3365** beautifully furnished in **soft pastels** in sharp contrast to the heaviness of the traditional furnishings in

> **Wi 1987**... verziert. Die Figürchen haben **weiche Formen** und weisen keine ...

> **Be 1980**... Möbel und vor allem Lampen, die ein warmes, **weiches Licht** verstrahlten, wenn man abends durch ...

The interpretation of *soft* as well as *weich* in strongly synaesthetic combinations is basically identical: something is comfortable or comforting, or not very strong. A combination of those is possible of course.

The other strongly synaesthetic metaphorical form relates to hearing and is more frequent in German than in English. The quality of *weich*/*soft* that is transferred onto the sound is always the same: it is always rather quiet, not unpleasant and in a couple of instances also calming, thus even similar to the findings with visual terms.

> **EBN 80** Cruise through the romantic illuminated waterways to a background of **soft music**.

> **CDM 2637** She had a **soft voice** and always put me at my ease.

> **Ge 1986**... (Erwachsenen-) Welt. Mit seiner **weichen, nie aggressiven Stimme**, der Sensibilität seines

In both strongly synaesthetic combinations the concept of *soft* as being comfortable is transferred onto the target domain; in some instances additional concepts are also taken over, but those do not apply generally. It will now be interesting to see if the same counts also for weakly synaesthetic metaphors, is here also only the concept of comfort taken over?

The most frequent weak form in English relates to drinks, followed by drugs, which has the same underlying idea. The interpretation of comfort does not apply as in a *soft drink* the *soft* rather stresses that the drink does not contain alcohol or any other substance that will somehow affect the system of a person. It is *soft* as it is not inebriant and can therefore be consumed by basically all people, even children, without side effects. A similar interpretation is true for *soft drugs*. Of course, here being *soft* does not mean that it can or should be consumed by everybody, it is rather the case that it is not as addictive or toxic for the body as other substances like heroin for example are. Therefore, both examples transfer a different part of the concept of *soft* onto the target domain: it is not the comfort that is foregrounded here, but the idea that the soft substance that is taken is more agreeable with the body than other substances.

> **AP0 1188** belief he held then, that the use of **soft drugs** did not necessarily lead to a progression to hard drugs,

> **BMW 1742** straight past, heading for the bar that was selling **soft drinks** only (with a crate of beer hidden under

Generally speaking, all weakly synaesthetic examples show the same underlying idea of something not being very strong. If somebody is soft or has a *soft spot* for something or somebody this person will probably give in more easily. Topics that are soft may be diluted or can effortlessly be attacked or argued against.

> **HWM 1329** in spite of the hurtful words he had just spoken she would always have a **soft spot** for the man.

> **Ze 1982**... waren. Sie sind toleranter, **weicher**, lockerer als ihre Vorgänger, aber auch ...

> **Ze 1987**... Blumen blühen". Dann die" **weichen Themen**": Frieden und immer ...

Generally speaking, *soft* and *weich* is most of the time positively connoted. It is fascinating how different aspects of the concept of *soft/weich* are transferred

onto the target domains presented here when a second sense is linked as opposed to forms that do not integrate another sense.

In the literal forms, *weich* and *soft* describe quite often objects or people (mainly body parts) in some way and do not need to be further analyzed.

> **HA6 1667** Weakness invaded her as his tongue darted over the fullness of her **soft lips**, dipped to taste the **sweet**

> **Ge 1936**… Erscheinung. Für die Frau gilt eine zarte, **weiche Hand** für unerläßlich, und sie tut gut, …

9.2 *hard/hart*

Hard is a difficult term in regard to sense perception as it is very often taken to describe difficult tasks which I consider its most frequent metaphorical usage. It occurs in a rather high number metaphorically (83 times out of 100) while its German counterpart shows to be used mainly metaphorically (five literal forms). Concerning the strongly synaesthetic occurrences, *hard* and *hart* are very different. *Hard* shows the exact same sense combinations as *soft* (hearing and vision), while *hart*, even though it occurs almost exclusively metaphorically, shows no such combinations at all. The examples of hard are so much alike to *soft* that they even show the very same linking in regard to the semantic fields: voice and light. However, in both cases it implies an element of uneasiness and threat. In the first examples, this is even further supported by a second sense related term that also tends to a have negative undertone.

> **FP0 2492** yawning and stretching, one hand flung up to shield her face against the **cold hard radiance**.

> **HGK 397** I will also wish to see every single photograph,' he warned in a **hard voice**.

Although *hard* describes only the aspect of the voice of a person in the above example, this theme can be also be applied to persons more commonly. This idea of an unemotional and unfriendly person can also be found in the metaphorical use of *hard* and also *hart* without any further sense-related terms: the general reference of a person as being *hard*. It is interesting to see that while *soft* is used equally often for men and women, *hard* mainly describes men and only eight examples in total in the *BNC* can be found in regard to a

hard woman. But it is not just the person, also their demeanor can be *hard*. This counts for German in the very same way.

> **Be 1980**... kurze Pause macht: eine ***harte männliche Geste***. Bemerke mit ...

> **B1L 897** He was a tough and uncompromising player with a ***hard man image*** but he was also a supremely

The biggest subgroup for *hard* is the one ascribing something as difficult. A further extended meaning is even more common. This can be found in the phrase *hard work* or *harte Arbeit*. Here the node word is used for the description of something that is taken very seriously, is exhausting and requires a lot of will power and personal commitment. This meaning is of course not limited to *hard work* in the physical sense and can be found in other phrases as well as in the mental process *to think hard*.

> **ASN 1955** 'Well, let's say I reckoned Mrs Wilson needed to be told about struggle and ***hard work***.

> **ACM 1053** Over the next two days a lot of ***hard thinking*** went into my plan of campaign.

> **Be 1999**... mörderische Hitze an den Öfen, der Qualm und die ***harte Arbeit*** ließen keinen weitreichenden ...

The idea behind *hard work* is different from that of the synaesthetic occurrences, because *hard* is here not necessarily negatively connoted, it can also be rewarding to *work hard*. This seems to be the general tendency in all those metaphors in English. In this aspect they differ from the German ones, as there *harte Arbeit* is not always rewarding, but is most often a part of life of a certain social class from which it is almost impossible to break out, but which is not making anyone rich either – neither in regard to the feeling of satisfaction, nor in regard to earnings. This is also depicted in *hard life*, which is in English as well as in German referring to the same idea of a life that is or was difficult and troublesome and can in some cases lead to somebody becoming a *hard person*. In most cases the person leading a *hard life* has experienced *hard times* (winter, life, day etc.). While in English the same is true for a *hard life* as it is for *hard work* – it can also be rewarding or perceived as special – in German only the negative aspects of hard can be found. The underlying idea is always that of difficulties, although they can be further

subdivided into times that are difficult because of the weather and difficult times because of the situations at hand.

> **EFJ 1970** 'He's had a ***cold, hard life*** and it's made him cold and ***hard*,'** Hepzibah said.

> **ADR 112** I think it was a ***hard life*** but I loved it while I was doing it.'

> **Ze 1989** Anhänger und Gegner von François Mitterrand zerfleischt. Aber selbst in dieser ***harten Zeit*** haben es

> **Ze 1993**... des Krieges würde weitere schwere Kämpfe und einen ***harten Winter*** bringen. Es gehe um das ...

In English a second meaning of *hard time* can be discovered. This one does not directly refer to a period of time, but rather to the idea of making somebody's life difficult. This does not mean that it has to be a permanent or lengthy time span, but can also refer to a present situation and most importantly to a person who is being difficult towards others, thereby giving them a *hard time*. It can also be used by somebody referring to himself as having a *hard time*, reflecting that this person has difficulties understanding or believing something, whereas the second part with belief is the more often occurring one.

> **CBG 9186** He's not dirty at all— he just gives defenders a ***hard time***.

> **G5H 161** I don't know about you but I have a ***hard time*** believing that.

Generally speaking, the weak metaphors with *hard/hart* can be combined into one underlying concept, it is adding an element of difficulty to the word in the target domain, although this is not necessarily bad. This is different in the synaesthetic examples where it mostly refers to something unpleasant or even threatening.

10. Conclusion

Words that relate to the senses behave very differently from each other, even if they relate to the very same sense, although some are more similar than others.

In the analysis a very clear outcome can be seen regarding the linked senses. Hearing is with 87 strongly synaesthetic occurrences the sense that comes up most often as the target domain, which conforms to the findings of Ullmann (1964) and Day (1995). Classen (1993) claims that smell is basically immune to forming general metaphorical combinations, thus it should not be possible to

find many synaesthetic metaphors with smell or smell related words either. This however, is not the case. The outcome of my analysis showed clearly that smell is actually the second most often used sense in the target domain with 55 occurrences and can also occur in the source domain. This is an amazing finding taking into consideration that there are so few olfactory words and those are not very broad in their concept. Especially with taste a strong linkage can be discovered to smell, although this link seems to work in one way only, since taste with smell in the source domain did not occur at all. In all my examples including all the senses, taste could generally not be found. The sense that occurs in third most position as the target domain is vision with 47 occurrences. Its most frequent combination is touch with which it co-occurs in 34 cases. Both other senses – touch and taste – are not very productive as target domain, but show the highest frequencies in the source domain, which also conforms to Ullmann's claim (1964). Hence, it can be seen that there are very obvious tendencies in the make-up of synaesthetic metaphors.

It is amazing that these tendencies that have been discovered before, are really valid since Ullmann for example, never explains how he gets his results, it might just be that they were mostly based on intuition.

The assumption of easier comprehension of metaphors that combine terms from rather closely related senses is difficult. Of course it can be found that taste and smell are highly productive together, but only in the direction taste (source domain) – smell (target domain). Thus, there seems to be a certain directionality underlying the possible combinations. Ullmann (1964) claims that this directionality goes from the lower senses to the higher senses. In other words, the lower senses (touch, taste) occur mostly in the source domain, while the higher senses (hearing, vision) are used for the target domain. This cannot be verified in my analysis, although the general tendency for touch and taste in the source domain can be observed. According to Classen (1993) terms relating to hearing are too specific to be used metaphorically at all, this does not agree with my results either, since in both languages smell occurred even less often in the position of the source domain and even though only five examples could be found with hearing altogether, it is obvious that they can occur and can be comprehended.

Source Domain		Target Domain	
Touch (37)	Taste (74)	Vision (21)	Hearing (67)
Taste (21)	Touch (35)	Hearing (19)	Smell (35)
Vision (4)	Vision (14)	Smell (13)	Vision (25)
Hearing (2)	Hearing (3)	Touch (1)	Touch (1)
Smell (1)	Smell (3)	Taste (--)	Taste (--)

The range of metaphorical instances of the terms varies from very highly (98%) metaphorical to very low (2%). Some terms proved to be more difficult to analyze than others, because a number of words have such a broad concept that they can be applied to very different fields, while others only have one underlying meaning. With those that are rather limited in their concept the transferred part in the metaphorical occurrences is most obvious, which is not always the case in the ones that have a wider concept. *dunkel* for example, has in its metaphorical usage so many different aspects that it can hardly be combined into one overall interpretation. Other words like *hart* can be easily summarized into very few subgroups, even though especially this word occurs almost exclusively in metaphorical form. Another difficult word is *quiet*, because already the literal form has two equivalent meanings, which is naturally also reflected in the metaphorical examples. In addition, it is fascinating that the overall connotation of a word can change when it is used metaphorically, thus words that are normally neutral or positive can all of a sudden occur in a negative context and vice versa and might even be the carrier of the connotation. With other terms, especially those related to hearing, the sense-related adjective does not contribute to the connotation of the whole phrase at all and, if left out, the overall interpretation would not change. The most fascinating thing to see in the strongly synaesthetic forms is that some senses can form metaphors with their primary sense, while this is absolutely impossible for others.

All in all, weakly and strongly synaesthetic metaphors are a fascinating aspect in our language. They show clearly how much we rely on the senses for the interaction with the world and since language is the main means of human interaction they are strongly presented in it. Since they do not only occur as the target domain it can be seen that they are equally important as non-sensual

words for the further explanation of some things. Of course, this paper has only discussed a very small part of synaesthetic metaphors and within those has only focused on the most frequent occurrences. Many more aspects that have been left out are of equal importance, but it could be shown very clearly that there are very obvious tendencies behind synaesthetic metaphors and that they differ in a number of aspects from non-synaesthetic metaphors.

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