



10.2478/topling-2018-0008

Crimson: More than a shade of red (dictionary definitions versus context use)

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Abstract

The paper proposes a study of a sample of 1,000 contexts for crimson, both the adjective and noun, in COCA with the aim of pointing out the insufficient and inaccurate dictionary definitions of crimson. The paper reveals the ambivalent nature of the meaning of crimson and offers a model of the senses of the crimson-adjective, demonstrating also the relative frequencies of the homonymous nouns within each of the senses. The key point of the paper consists in revealing the complex semantic structure of this adjective and its homonymous noun involving a broad range of synesthetic responses to positive and negative experiences of crimson as a visual aspect of a situation represented by various contexts. The analysis also demonstrates a correlation between the different senses of crimson, both noun and adjective, and the specific genres of text.

Key words

colour, definition, polysemy, context, corpus, meaning

1. Introduction

In this paper we present the results of a detailed contextual analysis of the meaning of *crimson* in COCA (Corpus of Contemporary American English) in comparison with how *crimson*, adjective and noun, is defined in such dictionaries as the Oxford Dictionary Online (OX), Merriam-Webster Dictionary Online (MW), American Heritage Dictionary (AH) and Longman Dictionary of Contemporary English Online (LD). Our analysis aims at offering an explanation for a significant discrepancy between the rather scant dictionary definitions and the expressive richness of *crimson* in the actual contexts. Our observations provide ample linguistic material in support of the relativist view of the nature and significance of experiencing colour by humans, which is gaining support among scholars studying colour in the cognitive sciences (Hardin, 1991; Saunders and van Brakel 1997, 2002; Jameson, 2005; Özgen, 2004; Cohen, 2007).

Some of the recent studies have explored the link between colour words, colour perception and culture. The researchers study the issue by applying a variety of cross-disciplinary methods, including those within the fields of anthropology, cognitive science, psychology, neuro-science, as well as statistical and evolutionary approaches to language and culture (Abbott, Griffiths and Regier, 2016; Haynie and Bower, 2016; Gibson et al., 2017; Zheng et al., 2017; Arbab et al., 2018). Findings of the majority of the papers recognize that linguistic and cultural factors are crucial in colour naming and colour perception. However, many of the studies use materials from the World Color Survey conducted

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in the late 1970s or other historical data (Abbott, Griffiths and Regier, 2016, p.11178; Haynie and Bower, 2016, p.13667; Gibson et al., 2017, p.1). At the same time, they do not address the key question of how a systematic study of the usage of names of colours in actual contexts can provide valuable information about the nature of the meaning of such words. Our paper is an attempt to fill this gap.

We claim that *crimson* as a colour word possesses a meaning that is less concerned with reference to a particular band of light waves and much more concerned with conveying a complex synesthetic and emotionally driven response to a particular environment. Here it is important to state that we would like to challenge the traditional division of word meaning into denotation and connotation. We will demonstrate that in the meaning structure of *crimson* it is impossible to identify a referential base that would be related to a purely chromatic perception without an integrated synesthetic emotional content. We also observe the complex polysemic structure of *crimson*, which allows us to characterize its meaning not only as anthropocentric but also as culture specific.

The synesthetic nature of colour perception has been discussed in *From Color To Emotion: Ideas and Explorations* by Shannon B. Cuykendall and Donald D. Hoffman (Cuykendall and Hoffman, 2008). The authors point out the significance of colour as an evaluative tool used by humans to make their interaction with the environment effective: “Objects and events critical to survival are often associated with characteristic colors: the blue of water, brown of a bear, green of leaves, amber of sunrise and sunset, and red of fruits and some berries. A color associated with such a critical object or event would come to be associated as well with the emotion it evokes.” (Cuykendall and Hoffman, 2008, p.1). The authors propose a new term – chromature – in order to stress the synesthetic nature of responses colours evoke in humans. Our linguistic analysis further supports this claim and reveals the complexity of interconnected emotions in the meaning of the word as it is being used in a specific context. The link between colour and emotion has been discussed by psychologists, social scientists, and philosophers (Chapman, 1937; Valdez and Mehrabian, 1994; Strapparava and Ozbal, 2010; Beyes, 2016). Linguist Keith Allan examined colour terms in their correlation with human emotional experience and social convention, often relying upon literary texts (Allan, 2009). Our paper offers a linguistic method that can lead to more insights into how humans experience colours through the meanings of the words that name them. Another important component of our analysis is the focus on the interrelation between the senses of *crimson* and the text genres in which they tend to occur with a significant frequency.

2. Dictionary entries: favouring objectivism

2.1 Confused definitions

At the beginning of our analysis, we carefully examined entries for *crimson* in the online versions of four well-known and respected dictionaries: Oxford Dictionary Online (en.oxforddictionaries.com), Merriam-Webster Dictionary Online (merriam-webster.com), American Heritage Dictionary (ahdictionary.com) and Longman Dictionary of Contemporary English Online (ldoceonline.com). In all of these dictionaries the definitions seem to follow the objectivist understanding of the nature of colour as it was defined in the seminal work by Berlin and Kay (Berlin and Kay, 1999). *Crimson* is treated as a secondary colour that should be defined as a shade of a primary colour, i.e. red. This tendency is most prominent in the senses listed first in the dictionary articles, i.e. core senses. Let us consider the dictionary entries for *crimson*:

OX: Crimson

- adjective. *Of a rich deep red colour inclining to purple.* Ex. she blushed crimson with embarrassment.
- mass noun. *A rich deep red colour inclining to purple.* Ex. a pair of corduroy trousers in livid crimson, they were horrid to behold.
- verb, no object. *(of a person's face) become flushed, especially through embarrassment.* Ex. my face crimsoned and my hands began to shake

MW: Crimson

- noun. *Any of several deep purplish reds*
- adjective. *Of the color crimson*
- verb. 1. Transitive. *To make crimson.* 2. Intransitive. *To become crimson; especially: Blush.* Ex. he crimsoned the minute he realized the foolishness of what he'd said

AH: Crimson

- noun. *A deep to vivid purplish red to vivid red*
- verb, transitive & intransitive. To make or become deeply or vividly red.
- adjective.

LD: Crimson¹

- adjective. 1. *Deep red in colour.* Ex. The leaves turn crimson in autumn; a crimson dress. 2. if you go crimson, your face becomes red because you are very angry or embarrassed
- *go/turn/flush/blush crimson* The boy blushed crimson.
- *crimson with* Her face was crimson with embarrassment.
- Noun [uncountable]
- Crimson², verb, intransitive [literary]. *if your face crimson, it becomes red because you are embarrassed* SYN *blush*. Rachel crimsoned and sat down.

All the four dictionaries define *crimson* as subordinate to *red* and add some intensifying characteristics (deep, rich, vivid). Interestingly, all the dictionaries except LD also use the words purple/purplish, instead of focusing solely on the connection between *crimson* and *red*. The definitions by MW and AH imply that *crimson* represents a set of colours with similar qualities.

Since *crimson* in its core sense is always explained through *red*, we also looked up the definitions of *red*. All of the entries for red are much vaster compared to *crimson*, have many senses and sub-senses (LD 8a 4n, OX 13n 8a, MW 14a 10n, AH 6n 7a) and examples. Let us consider the core senses for *red*, as presented in the four dictionaries. The spelling variations of the word *colour* below are due to the fact that we have been using both British and American dictionaries and we think it appropriate to preserve the original spelling in quotations:

LD. Red, adjective. 1 COLOUR having the colour of blood We painted the door bright red. a red balloon > blood-red, > cherry red at cherry (3), scarlet

OX. Red, adjective. 1 Of a colour at the end of the spectrum next to orange and opposite violet, as of blood, fire, or rubies.

MW. Red, adjective. 1.: a color whose hue resembles that of blood or of the ruby or is that of the long-wave extreme of the visible spectrum

AH. Red, adjective. 1.a. The hue of the long-wave end of the visible spectrum, evoked in the human observer by radiant energy with wavelengths of approximately 630 to 750 nanometers; any of a group of colors that may vary in lightness and saturation and whose hue resembles that of blood; one of the additive or light primaries; one of the psychological primary hues.

Here, we can observe two distinct approaches to defining the core of the meaning of *red*. The first one consists in presenting *red* as a characteristic chromatic attribute of certain physical entities – blood (LD, OX, MW, AH), rubies (OX, MW) and/or fire (OX). The second methodology is based on scientific measurements and introduces specifically physical terms (visible spectrum, wavelengths, nanometers) in the definition. These definitions, as in AH and partly in MW, are relevant only for a very narrow portion of contexts limited to scientific papers in optics. Both approaches rely on the objectivist tradition and are clearly striving to convey what they believe is the denotational core of the word.

Notably, all the definitions either contain (OX, MW, AH) or consist solely of (LD) the statement that *red* is the colour of blood. However, LD provides us with a compound *blood-red*, which makes it difficult to understand why these two roots appear together, considering that the core sense of *red* depends on the word *blood*. The article in LD is the only one that provides us with an example of the use of *red* in its core sense: *We painted the door bright red*. It begs the question: how relevant for this particular context would the connection to blood or, say, to such compounds as *cherry red* be? Secondly, the choice of an example sentence with “bright red” is questionable since adding a classifying adjective to a colour term may divert the reader away from the defined word.

Moreover, *bright red* in the same dictionary is the definition of the word *scarlet*, the second sense of which almost completely repeats that of *crimson*:

LD. Scarlet, adjective. 2. British English if you go scarlet, your face becomes red, usually because you are embarrassed or angry SYN blush

The only difference seems to be that *scarlet* is used specifically by the British, while *crimson* is not culture-specific.

Similar definitions can be seen in the different senses of *red*:

OX. 1.1. (of a person or their face) flushed or rosy, especially with embarrassment, anger, or heat.

LD. 3 FACE if you go red, your face becomes a bright pink colour, especially because you are embarrassed or angry

MW. 2 2. a (1): flushed especially with anger or embarrassment

Following this logic, if your face becomes crimson, it becomes red, which means it becomes rosy or bright pink. The provided definitions for *crimson*, *red* and *scarlet* send us into a continuous loop, where each of the words loses its meaning in an endless circle of substitutes, whereas the relevant question would be whether the choice of an adjective for seemingly similar contexts is solely determined by the need to point out a specific shade of the primary colour: *a face turned red/crimson? A door painted red/crimson? Red/crimson blood?*

The same loop of definitions develops if we follow the references for the verb *crimson*. Interestingly, OX and LD recognize *crimson* only as an intransitive verb and attribute it only to people's faces. AH stands out by mirroring its core sense. The others base their definitions on the interchangeability of *crimson* with such words as *blush* and *flushed*, the entries for *flush* refer us to *blush*, and *blush* once again refers us to *red* (to become red because of embarrassment/strong emotion). This finding appears to be in direct contradiction with the example/phrase provided by LD for the second sense of *crimson* the adjective:

go/turn/flush/blush crimson The boy blushed crimson

This raises the question about the distinction between *flush/blush* and *crimson (verb)*. If we rely on the suggested definitions, such phrases would implode because at least one of the words would become meaningless.

The entries tend to contain very few (MW, LD, OX) or no (AH, MW) contexts for specific senses of *crimson*, but instead some of the dictionaries choose to insert automatically generated lists of example sentences from language corpora (LD, OX). However, all the sentences in LD feature *crimson* as an adjective only, while OX provides long lists of examples for each part of speech (adj 20, n 20, v 12).

2.2 Illustrative examples: clues overlooked

Having carefully examined the contexts listed in the entries, we noticed certain patterns that are not reflected in the definitions. The larger the sample, the more prominent the patterns appear to be. Interestingly, even though the dictionaries define *crimson* as “a rich deep red”, in 26 out of 52 examples in OX the word *crimson* is used with either deep or rich:

- (1) The walls were paneled wood, painted with a rich crimson color and decorated by hanging tapestries
- (2) Pick a hue that has complexity, such as this rich crimson, which gives the room depth and drama.
- (3) The tree was covered in deep crimson flowers and filled with bright red papers.
- (4) The sun was slipping low into the sky, dying it shades of deep crimson

This may signify that the definition does not properly explain what *crimson* is, since in these examples its connection to *red* is completely irrelevant – the intensifiers apply specifically to the word *crimson*.

More importantly, a certain group of contexts seems to convey a specific type of situation where *crimson* is an attribute of a negative experience:

- (5) I watched, *paralyzed*, as *the blood soaked the once white sheets*, giving them a rich crimson color.
- (6) Their eyes have turned a *most fearsome* crimson colour, and *a feeling of malice is apparent* in their company.
- (7) *Blood rains, splatters and gushes and stains*: sometimes red, sometimes deep crimson.
- (8) Her eyebrows were *creased in anger* and her usually pale complexion was a deep shade of crimson.
- (9) Both sides *fought with abandon*, crimson water swirling round their knees. (LD)

The contexts created by such words as *paralyzed*, *most fearsome*, *malice*, *anger*, *abandon* clearly communicate that *crimson* occurs in the depiction of a hostile environment, thus constituting a visual aspect of an intense negative emotion. Moreover, sentences 5 and 8 emphasize the intensity of the situation by comparison with the former state of the environment: blood soaked *the once white* sheets, her *usually pale* complexion. The existing definitions give no explanation why *crimson* would be used in this particular kind of context.

We already know that dictionaries use the word *blood* as the most prominent feature that represents *red*. However, examples 5 and 7 describe blood as *crimson* (notably, the latter presents *crimson* and *red* as two distinct characteristics). The question is whether the contexts are focusing on a detailed description of different hues or whether the use of *crimson* next to *red* brings more to the context than a purely technical scale of chromatic distinctions.

Another distinctive group consists of contexts where *crimson* appears to be related to the sense of the opulence and richness of the environment.

- (10) Hanging in equal distances along the deep crimson walls were large paintings of bold men dressed in *fine robes*.
- (11) The *stage* was hung with deep crimson curtains and had a miniscule orchestra pit directly in front and under it.
- (12) The stone's *value* comes from its intense purple and crimson colour.
- (13) Pick a hue that has *complexity*, such as this rich crimson, which gives the room *depth* and *drama*
- (14) *Classic* crimson is one *Christmas hue* that *never goes out of style*

All the examples show *crimson* as part of a positive experience represented by such words as *style*, *value*, *classic* etc.

There are two contexts in the OX list that seem to represent mixed emotions:

- (15) The blood from the bodies had stained the carpet a beautiful crimson colour.
- (16) The cherries were staining her lips an enticing crimson colour, and Cary longed to lean across the table to kiss the juice away.

The first situation involves an apparent mutilation of human bodies, although *crimson* is still described as beautiful, suggesting evaluative ambivalence which combines the emotions displayed both in group 1 and group 2 of the contexts. The second context deals with a painful longing for what is irresistible and forbidden, also implying the ambivalence of the word *crimson*.

In these two contexts (15, 16), both of which are clearly drawn from literary texts, the meaning of *crimson* would be hard to confine exclusively to a specific shade of red: the blood from the bodies staining the carpet is a gory scene of mutilation; feeling the enticing power of the cherry juice on the girl's lips and experiencing a longing to kiss her is a powerful and painful emotion as it has to be contained. The use of *crimson* rather than *red* in these contexts is asking for an explanation, as the dictionaries clearly indicate *red* as a typical attribute for both blood and cherries.

The dictionary entries for *crimson* do not provide such answers, while the wealth of the contextual material we find as illustrative examples is clearly asking for them.

3. COCA contexts: outlining polysemy

The COCA site has the option of generating a sample of 100, 500 or 1,000 randomly selected contexts from the corpus for research purposes. In order to prove that dictionary definitions of *crimson* are

insufficient, we have chosen to analyse a sample of 1,000 out of the total of 2,596 contexts containing this word in COCA. However, later we found that the sample contained several website glitches that caused repetition of the same context, as well as the contexts where *crimson* is a proper name (or a part of such). Such contexts include 84 instances where the name of an Alabama football team (Crimson Tide) is mentioned, and 26 instances with the name of the student newspaper of Harvard University (The Harvard Crimson, The Crimson). Other proper names include names of fictional characters, nicknames, names of companies, products, street names, etc. Thus, 134 contexts in the sample are not eligible for our analysis, and the selection we have analysed consists of 866 unique contexts with the word *crimson*.

Our observations demonstrate that *crimson* regularly occurs in two distinct types of context as an element of a detailed representation of an intense emotional experience. The difference between these two contexts, which we refer to as Context A and Context B, consists in what at first glance may appear as a striking contrast between a negative (Context A) and a positive (Context B) experience. The considerable number of contexts representing each type in the corpus serves as an indicator of a semantic link between the meaning of *crimson* and the evaluative psychological response conveyed by the context to the reader. We also claim that this link ought to be used as a basis for a more consistent definition of the meaning of *crimson*.

Let us consider a few representative examples for each of the contexts.

Context A:

- (17) The Taliban fighter spun the thick blade and yanked it hard against the lower neck of the screaming, struggling soldier. A bloody *crimson* gap followed the edge of the knife, the wound yawning wider as the blade moved relentlessly onward. A thick fountain of blood spewed out as the terrorist slowly worked on the tendons, the veins, and finally the spinal cord. (2011, FIC: An act of treason: a sniper novel)
- (18) The magical radiance revealed a sight that filled Dumont with angry frustration and faint nausea. Brynn was still in the tub, but he hadn't drowned. The water in which his fish-white corpse floated was a dark *crimson*. The knife he had used to open his veins lay on the floor beside the tub. One hand rested on the side, the ragged flesh of the wrist a pale reddish gray. (1992, FIC: Dance of the Dead)
- (19) So how do we protect ourselves?" asks someone in back. An enraged, *crimson* voice. "Suppose it's true. How can we stop people from doing this to us, intentionally or not?" Except for the patter of rain on the roof, the silence is perfect. I pray for reason, regretting my mouth. But what's one prayer against the will of multitudes? An Irish journalist is found shot to death in a flooded sorghum field. (1995, FIC: Our prayers are with you)

Context B:

- (20) Below, the entrance to the Palace is protected by a double line of the Cardinal's Guards, resplendent in their *crimson* tunics. It would take an army to get past them. (1993, FIC: The Three Musketeers)
- (21) She'd attended more balls than she could count, but tonight, magic filled the air. Usually she paid scant attention to the decor, but now she noticed every detail. A row of rising shelves covered in *crimson* serge held dozens and dozens of crystal vases filled with hothouse flowers. Yards of scarlet draperies floated across the mantel and fell in a waterfall across the gold wall sconces. (2011, FIC: How to seduce a scoundrel)
- (22) Max is an Amazon parrot and the rain forest still echoes in the deep green depths of his feathers. His head and neck are lemon yellow; *crimson* bands adorn his wings. The first time I saw Max I was baffled by his beauty, which seemed an aberration in the confines of the room. I could make no sense of those luscious colors, so wrong for the latitude we lived in. (2001, FIC: Paradise)

In the examples representing Context A *crimson* serves as a vivid detail of scenes conveying a sense of searing pain and psychological shock caused by physical mutilation (17,18) or emotional frenzy (19):

screaming, struggling soldier; a bloody crimson gap; the wide yawning wound; thick fountain of blood spewing; relentlessly moving blade – 17; *angry frustration and faint nausea; fish-white corpse floating in dark crimson water; the knife used to open veins; ragged flesh of the wrist* – 18; *an enraged, crimson voice; so how do we protect ourselves?; how can we stop people doing this to us* – 19. In 17 and 18 *crimson* is the colour of blood from a gaping and mortal wound. The shock and horror of the scenes are consistently imparted by a series of words which also invoke a sense of intense revulsion. In 19 *crimson* is used as a characteristic of a voice and clearly conveys the sense of desperate frenzy, amplifying the evaluative significance of ‘enraged’ and adding emotional intensity to the questions the protagonist is asking. In all the three examples *crimson* is definitely more than just a reference to a specific shade of red. It establishes a particular pitch of negative emotions caused by the presence of something perceived as menacing, harmful and destructive. We propose to name Context A as *Searing, Frenzied Crimson*.

Context B, in contrast, offers a radically different emotional content. *Crimson* is used as an element of space which is perceived as splendidly beautiful and invokes a sense of awe and reverence: *Palace; Guards, resplendent in their crimson tunics; would take an army to get past them* – 20; *magic filled the air; crimson serge; crystal vases filled with hothouse flowers; the gold wall sconces* – 21; *crimson bands adorn his wings; baffled by his beauty* – 22. In these examples *crimson* is a colour representing something extraordinary. Unlike Context A, here *crimson* occurs next to nouns naming garments (20), elements of décor (21) or ornamentation (22). In these passages, the protagonist is experiencing the proximity of something outstanding and majestic. We propose to name Context B as *Splendid, Majestic Crimson*.

It would be natural to ask at this point whether *crimson* has an identical meaning in these two contexts or whether we are dealing with two distinct senses of a polysemous adjective or noun. If the latter is true, which we will try to prove, then it would be important to establish the semantic core of *crimson* that allows for two contrasting evaluations within the structure of its meaning.

In order to do this, we will consider each of the two contexts in greater detail.

3.1 Searing, Frenzied Crimson

The word *blood* occurs 99 times in the proximity of *crimson* in the corpus. In most cases (90) the contexts reproduce the emotional pattern characteristic of Context A:

- (23) A *crimson* flood spread over his unwashed shirt. Blood spattered everywhere. (1992, FIC: Only with your love)
- (24) A duty that neither he nor Ruth realized would amount to being torn limb from limb by artillery fire in a field in France, his blood coloring the wheat in that distant field *crimson* and pink. (2014, FIC: The Bride’s War)
- (25) The Pastor smiles, now we see his fangs as he plunges them into the Thin Woman’s inner thigh and drinks. This action seems to improve the woman’s experience. Finally the Pastor has had his fill and relaxes beside the woman. He licks his *crimson* lips as blood trickles from her thigh. They both lay there in an enraptured state. (2007, FIC: Blood: A Butcher’s Tale)

Example 25 is of particular interest as it can demonstrate the evaluative difference between *crimson* and *red*. The description presents a scene of mutilation: *plunging his fangs into the thigh; blood trickles from her thigh*. The use of *crimson* in this context indicates that the lips of the vampire are smeared with the woman’s blood, which conveys the ambivalent nature of the ‘enraptured state’ the protagonists are going through: pleasure through searing pain. COCA does not provide any matchings for ‘licks his red lips’ and only three matchings for ‘his red lips’, while a simple Google search offers a variety of contexts. In many of them the phrase is part of graphic descriptions of sex; however, there is no reference to pain or mutilation. It is clear that *crimson* in example 25 is not used as an indicator of a specific shade of *red*. The nature of the scene requires a colour feature that would be more troubling and intense than *red*. *Red lips* would break the emotional pitch set by the context as the adjective is devoid of the negative emotional intensity that *crimson* provides.

Red does occur in the proximity of *crimson* in a number of contexts. Within Context A *crimson* and *red* co-occur in descriptions in such a way as to indicate the transition to a higher degree of danger or a negative emotion as *crimson* appears in the wake of *red*. Examples 26, 27 and 28 below demonstrate this regularity:

- (26) He looked down at the boy again – and froze, when he saw the stranger’s knife pressed against the youth’s inner arm. A thin line of red welled up in its wake: dark *crimson*, thick and wet. “What the hell do you think you’re doing?” he hissed. (1991, FIC: Black Sun Rising)
- (27) She crawled as far as she could without exposing herself to the sunlight, using the tunnel’s shadow for protection. She saw an astonishing sight. A cavern, almost as large as the one she had left Wolverton in, opened in front of her. It was festooned with the stringy spiders, and they basked in the red glow of Gamma Crucis. There was a large opening just above, letting in the *crimson* radiation. (2008, FIC: Planetesimal Dawn)
- (28) If he was red before, now Saunders is *crimson*. A thermometer dropped into boiling water. (1993, FIC: A Perfect World).

A thin line of red//dark crimson, thick and wet – 26; the red glow// the crimson radiation – 27; red before//now crimson-a thermometer dropped into boiling water - 28.

Of all the contexts we consider *Searing Frenzied Crimson* (424 in COCA) 338 are marked as Fiction in COCA. In all the passages *crimson* plays an important role in conveying an intense negative emotion related to sensations of searing pain caused by a powerful destructive impact, revulsion and frenzy.

3.2 Splendid, Majestic Crimson

When *crimson* does not appear in contexts related to a negative psycho-emotional experience, the space created by the verbal pattern of these contexts is characterized by impressive opulence and magical power, while the reader registers a sense of reverence and admiration.

- (29) Then suddenly, a palazzo blazing with light, a masque in someone’s house. A man in elaborate dressing gown, *crimson* and gold. A dark-haired woman, in white lace dress. All behind the window glass. Sensuous. Beautiful. (1999, FIC: Der Tod in Venedig)
- (30) In the light from glowing lamps of burnished brass inlaid with gemstones, she began admiring her surroundings: thick rugs of a design done in *crimson*, blue, and gold; wood and brocade furnishings; and intricate hanging tapestries. (2008, FIC: Threads of Silk)
- (31) Two massive hearths dominated the room at each end, with flames roaring higher than a man. Tapestries kept out the chill drafts and depicted scenes of men in battle or men at the hunt. The stitches were colored in royal *crimson* and gold, the deepest blue of a king’s robe, the startling green of dark forest. Never had Abrielle been in a castle so magnificent in its display of wealth and power. (2007, FIC: Everlasting)

The relevant markers of the expressive power of *crimson* in such contexts are words or phrases indicating the presence of bright light which is powerful and majestic – *palazzo blazing with light – 29; glowing lamps – 30; hearths dominating the room with flames roaring higher than man – 31*. This light dominates the space and brings out vibrant and intense colours; in such contexts *crimson* tends to occur next to *gold* as opposed to *blood* in Context A. The sense of awed admiration is conveyed by a series of words such as *beautiful, admire her surroundings; never had been in a castle so magnificent*. Examples 29, 30 and 31 demonstrate the same properties of *crimson* as examples 20, 21 and 22. In none of them is it suggestive of horror, pain, frenzy or revulsion (*Searing, Frenzied Crimson*). At the same time, *crimson* maintains its role as a colour of intensity and powerful impact. In Context B the impact is benign rather than destructive. *Splendid, Majestic Crimson* occurs in 59 contexts in our sample from COCA; 51 contexts are marked as literary texts (FIC).

At this point, we can conclude that the two groups of contexts are actively employed in fiction and that in both groups *crimson* serves as a word for the emotional content of a fictional space. While the evaluative potential of the word changes from negative in Context A to positive in Context B, the word

retains its association with the presence of a great supernatural power experienced as glowing or blazing and capable of overwhelming a human being.

3.3 Ambivalent, Supernatural Crimson

In a number of contexts, the evaluative potential is ambivalent; *crimson* is experienced as the key characteristic of a space which both inspires with reverence and is perceived as potentially dangerous and destructive. Thus, we identify *Ambivalent, Supernatural Crimson* as a sense that reveals the semantic properties of both Context A and Context B.

Example 32 represents this integrated sense of *crimson*:

- (32) It wasn't pain I felt, it was color, bright color, brightness overwhelming. It wasn't pain at all, just the sudden shock of coming alive after being dead so long. An awakening from the grave of gloom. Lift the glasses slowly. Eyes ready to clench. At first, the dazzle startles. A splash of intensity. Hold my hand in front of my eyes - I can see through my fingers - I am translucent. Pink and gold and glistening. I have taken on the colors of the world. The *crimson* of my blood gives my skin a rosy blush. The blue of my veins resonates. I am a roseate glow of violet and vermilion. I lower my hand, and all the rest of the colors of the world flood in. All the smells and sensations. All the wonderful noises. All the heat and the light and the delicious flood of everything roiling together in a cascading symphony of being. (2004, FIC: *Dancer in the Dark*)

In this passage *crimson* appears as a noun characterizing the colour of blood (*the crimson of my blood*). In the majority of co-occurrences of *crimson* and *blood* in COCA *crimson* is used in the scenes depicting searing pain and intense suffering; the blood in these passages is the blood flowing or that has already flown from a deep wound; the prevalent emotion is shock and horror. In 32 a moment of transcendence is being described as an intense sensation of being possessed by a magical power transforming the self through a peculiar light. The *crimson* blood is not pouring from a wound; it is experienced by the self as a source of intense transformative energy. This energy is characterized by a series of words creating ambivalent evaluation: *it wasn't pain – it was bright color; the sudden shock; overwhelming brightness; the dazzle startles*. In the middle of the passage the shock of the powerful impact is represented as an interiorized experience and then *crimson* is used: *I have taken on the colors of the world. The crimson of my blood gives my skin a rosy blush*. Thus, here *crimson* combines the semantic properties of both Context A and Context B. The *crimson of my blood* is overwhelming and dazzling and at the initial moment of transcendence it is linked to pain, which is defined as 'not pain but bright color'. At the same time, the glowing energy is benign and magical – the key properties of Context B. To see the difference in the expressive potential of *Ambivalent Crimson* versus Context A, we can compare the evaluative pattern in 18 and 32: *The magical radiance revealed a sight that filled Dumont with angry frustration and faint nausea. ... The water ... (with a floating corpse) was a dark crimson. – 18; It wasn't pain I felt, it was color, bright color, brightness overwhelming. ... A splash of intensity... I have taken on the colors of the world. The crimson of my blood gives my skin a rosy blush. – 32.*

Such contexts revealing the full scope of ambivalent emotions, in which the presence of a magical power is both inspiring and troubling, are rare in COCA. Another example provides a passage from an art review:

- (33) At the Museum of Fine Arts, Kapoor gets an entire room for his “Untitled,” a painting on the wall – or perhaps a painted wall – that has a mysterious, sculptural effect. You can’t get close enough to tell if it’s protruding from the wall or recessed into it. *Crimson* in color with a ball-like center, it can also be seen as alluding to the ear. But it has a fiery presence like the sun itself. (1995, NEWS: Denver Post)

The choice of *crimson* provides the right emotional tone to what the author is describing as *a mysterious, sculptural effect* as it is suggestive of magical radiance and, at the same time a searing overwhelming energy of luminosity (*a fiery presence like the sun itself*).

In most of the contexts for *Ambivalent Crimson* the adjective or the corresponding noun are used to convey the superhuman awe-inspiring grandeur of nature or the transcendent unsettling effect of a work of art. Unlike Context A, these passages never invoke horror, searing pain or frenzy. 34 is such a context, whereas 35 gives a typical *Searing, Frenzied Crimson* effect:

- (34) A blinding light flashes on the far island, and before any sound is heard the wind recoils. The cloud uproots with *crimson* streaks of lava, crepuscular rays fanning out behind it for a brief heavenly moment. Muriel stands transfixed. (2013, FIC: Her Great Blue)
- (35) The sun slid. Orange bled to *crimson*. “Do you want her to?” The world hung in his question. I squeezed him. I’d never lied to him. “I don’t know.” He cut deep into his stick. “I don’t know.” (2012, FIC: Thunder and Rain)

A blinding light; crimson streaks; a brief heavenly moment, stands transfixed, - 34; bled to crimson (mutilation); the world hung in his question (frenzy); he cut deep into (mutilation) his stick - 35.

3.4 Utilitarian extensions

The three contexts we have identified above represent the majority of uses of *crimson* in the COCA sample (515 out of 868). The ambivalent evaluative potential of the root meaning provides the common base for a polysemic structure consisting of the three core senses:

- Sense 1* – experiencing the magical effect of glowing luminosity as contact with a supernatural power which is awe-inspiring and magnificent
- Sense 2* – a visual equivalent of painful sensations involving searing pain as from a deep open wound and an intense negative emotion such as frenzy (Context A above)
- Sense 3* – a visual equivalent of a sense of admiration inspired by the rich luminous character of the environment and its majestic beauty (Context B above)

In all of these senses *crimson* is primarily used in literary texts, which is a significant semantic property of this colour name (407 out of 513).

The remaining contexts in COCA provide us with two sub-senses that we propose to consider utilitarian extensions. In such contexts *crimson* does not convey a synesthetic aspect of the visual experience as a component of a complex psycho-emotional experience of a protagonist in a literary narrative or as an element of an emotional response to a work of art. Rather, it is used as a name of a distinctive chromatic feature of the environment whose key characteristics are related to the positive nature of *crimson* in Sense 3.

The first and the most numerous extension of Sense 3 is what we would like to call *Decorative Crimson* (Sense 3a). COCA marks such contexts as ‘Magazine’. *Crimson* occurs in descriptions of plants, always pointing out the attractive vivid and festive character of a flower or plant as a decorative feature of a landscaped garden:

- (36) There are few roses as popular as those of deep *crimson* coloring—and none so difficult to breed.” Heathcliff’ is a stunning 13th addition to Austin’s collection of red/scarlet English roses. It has large, fully double flowers of rosette shape. The color is a true deep *crimson*, with a certain softness reminiscent of some of the old red Gallica roses.
- (37) Shirley and Flanders poppies (*Papaver rhoeas*) contribute *crimson* splashes to the lush garden
- (38) Crepe myrtle foliage flames bright with shades of *crimson* and orange.

In such contexts *crimson* indicates a vivid addition to a pleasing array of colours (red/scarlet in 36; lush garden in 37; bright orange in 38). A similar function is performed by *crimson* in descriptions of interiors (39, 40), beauty products (41, 42) and food (43, 44). All of these contexts are derived from magazine articles promotional in character.

- (39) The silken leather seats stitched with tasteful *crimson* thread look as though they had come from BMW’s Motorsport catalog. (2013, MAG: Popular Mechanics)
- (40) A riot of light assaults a visitor walking into the lobby of Color Kinetics on the 17th floor of a downtown Boston office building. Swirled designs on posters change from orange to green, clear plastic shapes glow blue, purple and red in quick succession. And a question soon arises: What color is that couch? It shines cherry red, fades to *crimson*, turns navy blue, then begins the cycle again. In fact, the couch is red. It’s always red, and only the light shining on it from dozens of tiny spotlights changes, as Color Kinetics demonstrates the effects possible with its digital lights. (2000, MAG: Technology Review)
- (41) Be bold with a *crimson* pout. Try Elizabeth Arden Ceramide Plump Perfect Lipstick in Scarlet (\$21.50). (2009, MAG: Harpers Bazaar)
- (42) Goth-Red Lips An attention-grabbing *crimson* mouth is one of our favorite trends. (2011, MAG: Cosmopolitan)
- (43) The excellent dish shocks the palate to attention. Earthy *crimson* beet hummus balances tart, dense yogurt. (2015, NEWS: Austin American Statesman)
- (44) If you’ve been put off by the peppery bite of these crunchy *crimson* veggies, here’s the secret to dialing back the intensity: Just sprinkle salt on fresh-cut slices. Or cook them, which makes them sweet. (2012, MAG: Good Housekeeping)

As we compare the situations in which *Decorative Crimson* is used, it is easy to observe that the colour it names is always represented as a striking vivid feature that stands out in a rich palette and suggests a unique intense experience (*tasteful, bold, excellent, intensity of the peppery bite, flaming, contributing splashes, popular*). There is an interesting contrast between *red* and *crimson* in 36 and 40. In 36 *Austin’s collection of red/scarlet English roses* receives a *stunning addition*, which stands out because of its *true deep crimson* colour. Thus, red and scarlet in this context are used as conventionally expected colours of roses, whereas *crimson* represents unique beauty. The same effect is achieved in 40 where a couch that is *always red* acquires a constant change of *shining* colours including *crimson* thanks to the sophistication of Color Kinetics and their creative ways of using light effects (*a riot of lights*).

Another extension is *Symbolic Crimson* (Sense 3b). In such contexts *crimson* indicates a colour code as a symbolic representation of an organization or movement:

- (45) Zaire had been told that after the Civil War, newly emancipated Blacks heading north across the Tennessee border had founded Auburn, then no more than stubborn, rock-filled barren land that Franklin’s founding families had heretofore been unable to cultivate and had cast aside as untamable. Unyielding, the rigid *crimson* land had scorned the efforts of its new owners to force

growth and prosperity, such as it was, from it. But the former slaves, by nature, had been undaunted, diligent in their quest to extract new life from the orphaned region, stopping only long enough to rest, worship and bury the victims of the struggle. (1993, FIC: Front Porch Swings)

(46) Pratt eyed my faded jeans and tattered *crimson* IU sweatshirt. (1992, FIC: False Profits)

(47) One after another, a dozen of Cojuangco's Senate candidates got up to speak. Each wore a *crimson* T-shirt or vest with his or her name on the back. "It's the only way they can tell us apart," one complained. Another candidate, introduced as "the fighting general," danced to a disco beat. The biggest cheers were for two former basketball players. They, too, are running for the Senate. (1992, NEWS: Houston Chronicle)

In 45 *crimson* is a reference to the colour of the flag of Tennessee and thus *the rigid crimson land* denotes the political authorities of the state. Similarly, in 46 *crimson* stands for a particular pattern on a sweatshirt bearing the name and the colours of Indiana University and thus performs a symbolic function in the context. In 47 it references the colour chosen by the Cojuangco family in the Philippines during the election campaign. In such contexts *crimson* evokes more than just a decorative colour: there is a clear reference to a specific design, the relevant institution(s), the specific identification role of the colour as a social code.

Finally, we have identified three terminological sub-senses for *crimson*. *Crimson* is used as a name of a professional paint used by artists to attain the effects of *crimson the colour* in their work. It is frequently used in conjunction with *alizarin* (91 out of 94) and occurs in magazine articles describing the work of professional painters:

(48) He arranges his colors in spectrum sequence, ranging from indigo and violet on the extreme left to cadmium red deep and *alizarin crimson* on the right. He rarely uses all the colors at his disposal on any one painting, but he always uses white, which, he says, serves as his «control». (1991, MAG: American Artist)

This syntactic pattern establishes distinct parameters for the sub-sense. The narrow professional sphere of the application of this sub-sense allows us to classify it as a term. Because this term occurs in articles discussing the technical aspects of the art of painting, it is an extension of Sense 1, in which the full expressive potential of *crimson* as a component of a painting is evoked in a number of contexts. Accordingly, we register this sense as 1a.

Crimson can also stand for a particular band of light waves in the visible spectrum. Such contexts derive from texts on optical effects in different professional spheres related to the study of light:

(49) A small concentration of glowing gas forms a tiny but bright part of this otherwise faint nebula. SHARPLESS 2-242'S most noticeable feature is the color gradient, ranging from a *crimson* on the right to a rich pink on the left. The varying distance of the nebulosity to the star exciting it creates this effect. (2007, MAG: Astronomy)

This term appears to be an extension of Sense 3 as the perception of light related to *crimson* is characterized as bright and the word describes a visual response to even glowing (Sense 3c).

The COCA sample contains just one context in which *crimson* is used as a medical term characterizing the distinctive colour of venous blood. A further search demonstrates that this terminological application of *crimson* is typical of contexts discussing various types of bleeding. Thus, it is an extension of Sense 2 (Sense 2a).

4. Conclusion

Our analysis can be summed up in the following model of the senses of *crimson*, adjective and noun. We have observed that the distinctions between *crimson* adjective and *crimson* noun are syntactical and do not reflect on the nature of the context. The ratio of nouns and adjectives for each of the senses may vary; we provide the numbers in the model:

Sense 1 – experiencing the magical effect of glowing luminosity as contact with a supernatural power, which is awe-inspiring and magnificent. Total number of contexts – 30: adjectives – 26; nouns – 4.

- Even the bright red of the blood, contrasted as it is with the dark tones of the rest of the painting, seems to suggest the creative potential of crimson paint straight from the tube as well as the vital fluid of life. (1991, MAG: American Heritage)
- The crimson of my blood gives my skin a rosy blush. (2004, FIC: Dancer in the Dark)

Sense 1a – a professional paint used by artists to attain the effects of crimson the colour in their work. Total number of contexts – 94: nouns – 93; adjectives – 1.

- “Frequently I will add small amounts of light yellows, light reds, light browns, light blues, and muted greens for the light skin tones,” says the artist. “What I see in the skin of the model dictates the changes. In the darker areas, I start with a mixture of transparent gold, adding varying amounts of burnt umber and alizarin crimson.” (2003, MAG: American Artist)
- Steinberg continued adding layers of crimson red, canary yellow, denim blue, jasmine, chocolate, and ginger root. (2008, MAG: American Artist)

Sense 2 – a visual equivalent of painful sensations involving searing pain as from a deep open wound and an intense negative emotion such as frenzy. Total number of contexts – 424: adjectives – 374; nouns – 50.

- Recalled the slash of his blade, the crimson tide of her blood, and the metallic stench of death wafting on the air. (2011, FIC: The Darkest Secret)
- The little man screamed, hands flying to his face, crimson seeping through his fingers. (1999, FIC: Fantasy & Science Fiction)

Sense 2a – the darkness of venous blood allowing to establish the nature of bleeding (only one context in the sample):

- Properly said of the crimson venous blood, the colour of arterial blood being scarlet. (2006, ACAD: Style)

Sense 3 - a visual equivalent of a sense of admiration inspired by the rich luminous character of the environment and its majestic beauty. Total number of contexts – 59: adjectives – 46; nouns – 13.

- On the gold bed lay a lady’s chemise and a long-sleeved crimson gown, trimmed with gold-embroidered flowers. (2003, FIC: Killer of Children)
- The stitches were colored in royal crimson and gold, the deepest blue of a king’s robe, the startling green of dark forest. (2007, FIC: Everlasting)

Sense 3a – a striking vivid feature of the environment associated with rich glowing. Total number of contexts – 214: adjectives – 176; nouns – 38.

- Shirley and Flanders poppies (*Papaver rhoeas*) contribute crimson splashes to the lush garden. (1997, MAG: Country Living)
- Crimson, gold, and other “hot” colors are at last finding favor in country gardens here and abroad. Once shunned in Britain’s pastel-dominated landscapes, riotous red and sunny yellow wake up a garden in the English county of Shropshire. (1997, MAG: Country Living)

Sense 3b – a rich decorative colour as in 3a chosen to symbolically represent high rank and distinction. Total number of contexts 36: adjectives – 30; nouns – 6.

- And there was the mandatory hockey practice that I had to log despite the fact I had been relegated, after all my supposed promise at the unknown Catholic boys school in New Hampshire, to big-league bench-warming in the crimson uniform at Harvard. (2000, FIC: New England Review)
- Stanford’s cardinal red is a close relative to the crimson of Harvard. (1997, NEWS: San Francisco Chronicle)

Sense 3c – a particular band of light waves in the visible spectrum experienced as bright luminous spots in the observed space. Total number of contexts – 8: adjectives – 6; nouns – 2.

- The new physical model, however, predicts the very properties of red luminous novae, such as their crimson color, short duration, and occurrence rate. (2013, MAG: Natural History)
- A small concentration of glowing gas forms a tiny but bright part of this otherwise faint nebula. SHARPLESS 2-242’S most noticeable feature is the color gradient, ranging from a crimson on the right to a rich pink on the left. (2007, MAG: Astronomy)

One more insight into the nature of the meaning of *crimson* that COCA contexts have provided concerns the relationship between the senses of *crimson* and the speech genres. We have used the COCA genre attribution to see whether different senses demonstrate a tendency to occur in specific genres of text. Table 1 presents the distribution of contexts between the genres in each of the senses we have identified.

Table 1. Genre distribution of contexts in COCA

	FIC	MAG	ACAD	SPOK	NEWS	TOTAL
Sense 1	18	2	5	1	4	30
1a	-	94	-	-	-	94
Sense 2	338	33	8	14	31	424
2a	-	-	1	-	-	1
Sense 3	51	6	2	-	-	59
3a	35	126	11	4	38	214
3b	19	3	3	3	8	36
3c	1	7	-	-	-	8

Our analysis has demonstrated that in real contexts *crimson* reveals a more complex semantic structure than what we have found in dictionary definitions. There are two very important aspects of the meaning of *crimson* completely overlooked by the dictionaries that we believe to be the key factors determining how *crimson* is used in English. The first aspect concerns its semantic ambivalence underlying its polysemic structure. Its ambivalence is characterized by the contrasting emotional content within the three main senses. In the sample *crimson* demonstrates the tendency to occur most frequently in negatively charged contexts (Sense 2) as an element of scenes of physical mutilation or distress. In such

contexts *crimson* conveys a complex synesthetic sensation combining the emotional impact from the sight of bleeding associated with the dark intensity and the unsettling nature of the experience as well as the strenuously tense psychological response. In fiction, the positive sense of *crimson* occurs considerably less frequently in the sample (59 contexts versus 424). The difference is significant enough to justify our conclusion that the negative expressive potential of *crimson* is stronger than its positively charged sense in literary texts. However, we also see that the positive extension of *crimson*, which we identify as 3a, is common in journalism (126 contexts versus only 33 for Sense 2).

This brings us to the second important aspect of the meaning of *crimson*: its semantic ambivalence is linked to a genre differentiation of contexts. In the table above we see that whereas in literary genres *crimson* tends to be used in its negatively charged Sense 2, the positively charged utilitarian extension Sense 3a provides a significant number of contexts in the media. The contextual domain for all the positively charged senses of crimson (Senses 3; 3a and 3b) activates associations with festively bright and shining glow and completely suppresses any negative impact of this word. Promotional texts and advertisements appear to be most typical genres for the contextual sphere of the positive version of *crimson*.

The type of context in which *crimson* unfolds its full ambivalent nature (Sense 1) is rare in the sample. *Crimson* combines the sensations of awe and admiration associated with the response to the magical power and beauty of glowing fire-like light in contexts conveying transcendental experiences related to the mysterious majestic beauty of nature or the emotional power of a painting.

Another significant finding concerns the ratio between *crimson* the adjective and *crimson* the noun. In all the senses, as demonstrated by the numbers in our model above, the adjective is considerably more frequent than the noun, which allows us to conclude that it would be logical to give the adjective priority in dictionary definitions. The only exception is Sense 1a, where this word names a particular type of professional paint: a clear case of derivational metonymy.

Our findings have proved that the meaning of *crimson* carries far more content than just indicating a specific shade of a primary colour. We hope that the analytical method we have presented in this paper will encourage scholars to devote more attention to the semantic potential of colour names in context.

References

- Abbott, J.T., Griffiths T.L. and Regier T., 2016. Focal colors across languages are representative members of color categories. *Proceedings of the National Academy of Sciences*, Oct 2016, vol. 113, no. 40, pp. 11178-11183.
- Arbab, S. et al. 2018. Categorisation of colour terms using new validation tools: A case study and implications. *i-Perception*, vol. 9 issue: 2.
- Berlin, B. and Kay, P., 1999. *Basic color terms: Their universality and evolution*. Berkeley and Los Angeles: The University of California Press.
- Beyes, T., 2016. Colour and organization studies. *Organization Studies*, vol. 38, no. 10. pp. 1467-1482.
- Chapman, H.W., 1937. Colour. *Philosophy*, vol. 12, no. 48, pp. 443-456.
- Cohen, J., 2007. A relationalist's guide to error about color perception. *NOÛS* 41:2. pp. 335-353.
- Allan, K., 2009. The connotations of English colour terms: Colour-based X-phemisms. *Journal of Pragmatics*, vol. 41, issue 3, pp. 626-637.
- Cuykendall, S.B. and Hoffman, D.D., 2008. *From color to emotion: Ideas and explorations*. Irvine, CA: University of Irvine, California.
- Gibson, E. et al. 2017. Color naming across languages reflects color use. *Proceedings of the National Academy of Sciences*, Oct 2017, vol. 114, no. 40, pp. 10785-10790.
- Harding, C. L., 1991. Color for philosophers: A précis. *Philosophical Psychology*, vol.4, no.1, pp. 19-26.
- Haynie, H.J. and Bowern, C., 2016. Phylogenetic approach to the evolution of color. *Proceedings of the National Academy of Sciences*, Nov 2016, vol. 113, no. 48, pp. 13666-13671.

- Jameson, K. A., 2005. Culture and cognition: What is universal about the representation of color experience? *Journal of Cognition and Culture*, vol. 5, no. 3, pp. 293-348.
- Özgen, E., 2004. Language, learning, and color perception. *Current Directions in Psychological Science*, vol. 13, no. 3, pp. 95-98.
- Saunders, B.A.C. and Van Brakel, J., 1997. Are there nontrivial constraints on colour categorization? *Behavioral and Brain Sciences*, no. 20, pp. 167-228.
- Saunders, B.A.C. and Van Brakel, J., 2002. The trajectory of color. *Perspectives on Science*, vol. 10, no. 3, pp. 302-355.
- Strapparava, C. and Ozbal, G., 2010. The color of emotions in texts. *Proceedings of the 2nd Workshop on Cognitive Aspects of the Lexicon (CogALex 2010)*, Beijing, pp. 28–32.
- Valdez, P. and Mehrabian, A., 1994. Effects of color on emotions. *Journal of Experimental Psychology: General*, vol. 123, no. 4, pp. 394-409.
- Zheng L. et al. 2017. Color adaptation induced from linguistic description of color. *PLoS ONE*, vol. 12, no. 3, pp. 1-17.