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A corpus-based analysis of semantic change of lexemes and expressions from the domain of photography and film[1]

The invention of photography and film necessitated the coining of new lexemes and expressions which over time gradually took on new meanings and spread to other domains. Many of these semantic changes were motivated by conceptual metaphors, as proposed by Lakoff and Johnson (1980), and as the expressions became more entrenched, they started to be used in understanding other concepts. The advantages of the new technologies began to influence the way people perceived and conceptualized the world, which was in turn reflected in the innovative ways they spoke about it. Based on semantic and syntactic data retrieved from the Corpus of Historical American English (COHA) and the Corpus of Contemporary American English (COCA), the paper first presents the four common conceptual metaphors which gave rise to six new ones that underlie the novel uses of 14 lexemes and expressions from the domain of photography and film technology. Through semantic change these lexemes and expressions all acquired metaphorical meanings; some became part of collocations while others became idioms. The chronology of these changes corresponds to the order of semantic change motivated by conceptual metaphors as described by Traugott (1982, 1985), Traugott and Dasher (1987, 2001), and Sweetser (1983, 1984, 1990), namely, the shift from the physical domain to mental states, from mental states to speech acts, and sometimes to discourse markers. The newly acquired meanings of the 14 expressions at hand may thus be viewed as the result of new conceptual metaphors that have photography and film as their source

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domains, thus providing further empirical evidence for the already established types of shifts typical of semantic change. Curiously enough and despite their prevalence, many of these senses are not listed in online versions of some of the major contemporary dictionaries of the English language.

Key words: photography, film, semantic change, conceptual metaphor

1. Introduction

Like other technological innovations, the invention of photography and film necessitated the coining of new lexemes to describe various aspects of these new phenomena. Over time, these lexemes and expressions took on new meanings,[2] some became part of collocations[3] and some even became idioms. As this paper argues, many of these semantic changes were motivated by metaphor, meaning that, as these expressions and the concepts they refer to became more entrenched, they also started being used to understand other concepts. These semantic changes follow a predictable path, moving from propositional to textual and expressive meanings, or, more specifically, from technical uses to mental states, including perception and cognition, and to speech acts and discourse markers. The domain of photography and film is especially suitable for this type of analysis because of its timing and nature: enough time has passed since the advent of photography in the early 19th century to reasonably identify and track semantic changes, but not so much time that insufficient written sources and corpora, as well as more general language changes, would severely limit the research. Also, both photography and film involve visual perception as one of the senses through which we experience the world – the invention of the former preceded the invention of the latter,[4] and both are significant milestones in the human technological development.

[2] For instance, the film term *flashback* came to be used in the context of PTSD and hallucinogenic drugs.

[3] In this paper we adhere to a broad definition of collocation as "a combination of two or more words which frequently occur together" (O'Dell and McCarthy 2007: 6) or "an expression consisting of two or more words that corresponds to some conventional way of saying things" (Manning and Schütze 1999: 151). The former authors point out that in this sense phrasal verbs and compound nouns may also sometimes be described as types of collocations but suggest that it is better to consider them as individual lexical items (O'Dell and McCarthy 2007: 6). We agree and continue to use the term collocation to refer primarily to relatively fixed syntactic structures in which lexical items originating from the domain of photography and film are frequently used.

[4] Although photography is perceived as instantaneous and static, while film has movement and duration, the latter actually consists of a series of still pictures shown in rapid succession, thus creating an illusion of a moving object, hence the term *moving picture* or *motion picture*. We therefore think there is enough ground to suppose that our types of knowledge about the two media from the viewer perspective are quite similar.

Analyzing the development of these new meanings through the lens of metaphor as one of the primary mechanisms of semantic change (Sweetser 1983, 1984, 1990; Geeraerts 1997) may bring to light some patterns in the meaning changes of the expressions at hand. To this end, the theoretical framework applied in this paper stems from the theory of conceptual metaphor (CMT) as first laid out by Lakoff and Johnson (1980). In contrast to the traditional view of metaphors as decorative, easily identifiable figures of speech characteristic of poetic language, they argued that metaphors are present in everyday language and function as a crucial component of the human conceptual system, which structures our perception, communication, and day to day life. A well-known example of such an underlying or conceptual metaphor would be ARGUMENT IS WAR, which may be expressed in a variety of phrases such as:

(1) Your claims are *indefensible.*
(2) I've never *won* an argument with him.
(3) His criticisms were *right on target.* (Lakoff and Johnson 1980: 4–5)

In each of these examples, as in conceptual metaphors in general, a target domain (*argument*) is not only *spoken about* in terms of a source domain (*war*) but is also *understood* and even *performed* through this lens. That is, in Lakoff and Johnson's turn of phrase, "we talk about arguments that way because we conceive of them that way – and we act according to the way we conceive of things" (Lakoff and Johnson 1980: 6). Furthermore, conceptual metaphors are interconnected and form a complex system in the human mind: one way in which they may be related to one another is through entailments, such that TIME IS MONEY entails TIME IS A LIMITED RESOURCE (Lakoff and Johnson 1980: 10) or ANGER IS A HOT FLUID IN A CONTAINER entails WHEN THE INTENSITY OF ANGER INCREASES, THE FLUID RISES ("His pent-up anger *welled up* inside him") and INTENSE ANGER PRODUCES STEAM ("I was *fuming*") (Kövecses 2002: 96). These metaphors are mutually cohesive because they are based on the same set of mappings, including the following: "physical container > angry person's body", "degree of fluid heat > intensity of anger", and "cause of increase in fluid heat > cause of anger" (Kövecses 2002: 96). However, they each emphasize different aspects of the experience of anger. Depending on what is being highlighted, the same target domain may also be conceptualized using a variety of unrelated source domains (Lakoff and Johnson 1980: 10–14). For instance, the conceptual metaphor ARGUMENT IS WAR emphasizes certain characteristics of arguments and neglects others, while metaphors like ARGUMENTS ARE JOURNEYS or ARGUMENTS ARE BUILDINGS have different focuses (Kövecses 2002: 80). On the other hand, the same aspect(s) of disparate target domains may be highlighted by using the same source domain, as in ARGUMENTS ARE BUILDINGS, ECONOMIC SYSTEMS ARE BUILDINGS, and CAREERS ARE BUILDINGS. In these examples, the target

domains ARGUMENTS, ECONOMIC SYSTEMS, and CAREERS are all conceptualized as ABSTRACT COMPLEX SYSTEMS (Kövecses 2002: 127), forming the 'complex' metaphor ABSTRACT COMPLEX SYSTEMS ARE BUILDINGS based on the 'simple' metaphors CREATING AN ABSTRACT COMPLEX SYSTEM IS BUILDING; THE STRUCTURE OF AN ABSTRACT COMPLEX SYSTEM IS THE PHYSICAL STRUCTURE OF A BUILDING; A LASTING ABSTRACT COMPLEX SYSTEM IS A STRONG BUILDING (Kövecses 2002: 127). In offering such a detailed and structured account of the many interrelated conceptual metaphors that shape human cognition, CMT provided a basis for systematizing seemingly irregular, arbitrary linguistic phenomena.

This definition of conceptual metaphor was later expanded and applied to a variety of different fields, including language change, particularly by Sweetser (1990), expanding her earlier work on semantic change (1983, 1984), and Traugott and Dasher (2001), whose relevant chapters built on Traugott and Dasher (1987), as well as on some of Traugott's earlier work (1982, 1985). Although these texts go beyond lexical semantics by analyzing such diverse phenomena as modality, conditionals, performative verbs, and social deictics, they contribute to the theoretical underpinnings of this paper due to their application of cognitive linguistics and Conceptual Metaphor Theory (CMT) to the field of diachronic semantics, as well as their focus on the diachronic development of discourse markers.

In the following sections we show how expressions belonging to specific semantic domains – in this case the domains of photography and film – may give rise to new conceptual metaphors that become part of the general language. Therefore, the goal of the paper is to identify and group the underlying conceptual metaphors behind the patterns of semantic change as evidenced by the analyzed lexemes and expressions from the domains of photography and film, starting from the following hypotheses:

H1: As these lexemes and expressions become more frequent, they gain new meanings and start to appear in differing contexts, which is in turn reflected in their changed syntactic behavior, such as the emergence of new preferred argument structures of verbs.

H2: The chronology of these shifts follows the outline proposed by Traugott (1982, 1985), Sweetser (1983, 1984, 1990), Traugott and Dasher (1985, 2001), and Brinton and Traugott (2005), from the propositional to the textual and expressive domains, or, more specifically, from "event" verbs to perception and mental state verbs, then to speech act verbs, and in one case to discourse marker.

H3: These new meanings are motivated by conceptual metaphors which use photography and film as their source domains.

2. CMT and semantic change

A more direct application of CMT to diachronic semantics occurs around the same time – early 1980's – and later builds on Traugott's research on the direction of domain shifts: at the 1983 annual meeting of the Linguistic Society of America, Sweetser presents a paper titled *Semantic structure and semantic change: English perception-verbs in an Indo-European context,* which suggests a systematic approach to the study of conceptual metaphors as sources of semantic change. Although metaphorization had long been noted as one of the mechanisms of semantic change, it was still considered too idiosyncratic to account for broader patterns and regularities, rather than just random individual changes. However, using CMT's systematic approach to metaphor, Sweetser proposes several conceptual metaphors, such as KNOWING IS SEEING and MIND IS BODY, as the force behind common semantic shifts from the domain of sense perception to the domain of cognition. These findings are taken up by Traugott (1985: 159), who applies Sweetser's "focus on shifts from one semantic domain to another" to other kinds of semantic change. For instance, to describe the development of modal verbs from root or deontic meanings (such as *Passengers must wear a seatbelt*) to epistemic meanings (*He must be married,* meaning 'I conclude that he is married') and the relationship between speech act verbs known as directives, such as *command*, and representatives, like *assert* (1985: 166-168). Alongside "the principle that more concrete terms will almost always give rise to more abstract ones and not vice versa" (Traugott 1985: 159), also known as Kronasser's Law, Traugott suggests a unidirectional shift from less inferential to more inferential meanings, or from "the more objective world of external 'fact' (…) to the internal world of personal point of view, inference, and belief" (Traugott 1985: 165).

Further research in semantic change seemed to focus on mental state and speech act verbs in particular: based on a diachronic study of such verbs in English and Japanese, Traugott and Dasher (1987) described unidirectional, metaphorically motivated meaning shifts from physical domain verbs to mental state verbs, and from mental state verbs to speech act meanings, which are observed in several verbs analyzed below. That is, while their shared "most frequent source" is that of "spatial terms" (Traugott and Dasher 1987: 565), such as *deduce* from Latin *ducere* 'lead' or *suggest* from Latin *gerere* 'carry', speech act verbs tend to develop from mental state verbs, as in *recognize* and *observe* taking on speech act meanings, rather than vice versa (Traugott and Dasher 1987: 569-570). This direction, they argue, is to be expected because "mental verbs are propositional in nature and speech act verbs presuppose interactive meanings" (1987: 568). They also argue that this directionality "is predicted by a far more general variation-defining universal of change whereby linguistic items shift from propositional to interpersonal meaning" (Traugott and Dasher 1987: 562). While they do not reference Lakoff and Johnson's Conceptual Metaphor Theory, their descriptions of the domain of space as the "source" for men-

tal state and speech act verbs are arguably influenced by the approach, though be it in an indirect manner.[5] Furthermore, Sweetser (1990: 19) argues that the nature of the shift Traugott and Dasher describe results not only from the "inherent unidirectionality of metaphorical connection (viewing X as Y is not the same as, and does not imply, viewing Y as X)", but also from the considerable overlap between the systems of metaphors involved in mental state and speech act vocabulary. In other words, Sweetser makes explicit the metaphorical nature of these verbs that was only implicit in Traugott and Dasher, stating that "both speech acts and mental states are metaphorically treated as travel through space", as in *think about* versus *think over* and *talk about* versus *talk over*.

Thus, the more general description of the unidirectionality of the shift from the propositional to the textual and expressive domains is narrowed down to a shift from propositional to mental state and speech act verbs, and such semantic shifts are explained using the framework of CMT, with more concrete domains being used to conceptualize more abstract ones.[6] In retrospect, Traugott and Dasher's omission seems deliberate: in later works, especially *Regularity in Semantic Change* (2001), they criticize CMT and Sweetser's application of it, questioning the usefulness of "domains" which can be as large-scale as the domain of modality or the domain of "speech acting" (Sweetser 1990: 21), or as small as the "irreducible primitives" of time and space described by Lakoff. They rightly point out that "the question of how large a leap has to be to count as metaphor becomes a major issue" (Traugott and Dasher 2001: 28), opting instead for the term "conceptual structures" to avoid prejudging what is in different domains and what is not. Throughout the book, they favor conceptual metonymy over metaphor, pointing to the reevaluation of the relationship between metaphor and metonymy summarized and advanced by Barcelona (2000), and stress that the changes they analyze are "metonymic to the SP/W [speaker/writer] - AD/R [addressee/reader] dyad", that is, to the act of communication itself (Traugott and Dasher 2001: 279).[7]

[5] One of its sources is Sweetser's 1984 doctoral dissertation on semantic structure and semantic change, subtitled "A Cognitive Linguistic Study of Modality, Perception, Speech Acts, And Logical Relations", where she uses the CMT framework, and personally thanks Lakoff.

[6] Kövecses (2020: 5) also points out that mappings go from concrete to abstract domains because it makes more sense "to conceptualize the cognitively less easily accessible domains in terms of the more easily accessible ones" saying how the reverse direction is also possible when there is some special purpose or effect involved.

[7] However, the CMT framework is still appropriate to the subject matter at hand, considering that the prevalence of metaphor in the literature "may be a function of the type of lexical domains under investigation" (Traugott and Dasher, 2001: 282). In other words, although metaphors may well be "at least *typically* (…) based on one or more metonymic mappings" (Barcelona 2000: 51), these metonymic foundations do not necessarily negate the existence of conceptual metaphors as such.

Still operating within the CMT framework, Sweetser (1990: 27) mapped out the routes of semantic change, examining "examples of (…) metaphorically structured, non-objective connections between senses" of polysemous verbs, and suggesting that these shifts from the perceptual domain of physical sensations to that of cognitive processes like knowing and judgement are motivated by several conceptual metaphors which can ultimately be subsumed under the metaphor MIND IS BODY. This metaphor consists of the following mappings:

Table 1. Mappings for the metaphor MIND IS BODY (adapted from Kövecses, 2002: 218)

Source domain:	**Target domain:**
Physical manipulation	Mental manipulation, control
Physical manipulation	Sight
Sight	Knowledge, mental vision
Hearing	Internal receptivity
Feel	Emotion
Taste	Personal preference

In summary, verbs of perception, which are themselves often recruited from the domain of physical space and motion, are later used to describe mental states due to the MIND IS BODY metaphor (Sweetser 1983, 1984, 1990), with the next shift occurring when mental state verbs come to have more 'inferential' speech act meanings. These shifts (physical motion/manipulation > perception > mental states > speech acts) are predicted by Kronasser's Law (concrete > abstract) and by the propositional > textual > expressive, propositional > interactive, and less inferential > more inferential shifts (Traugott 1982, 1985). This move to the textual, discourse-structuring domain is especially prominent in the development of discourse markers from conjunctions and adverbials, many of which trace the path from spatial through epistemic to discourse-structuring meanings and, most importantly for this paper, from verbs and clauses which often stem from the domains of perception and cognition (Traugott and Dasher 2001; Brinton and Traugott 2005).

As the following sections illustrate, several verbs related to film and photography, some of which are originally based on spatial metaphors, such as *flash back*, *flash forward* or *rewind*, have shifted first to the mental state and then to the speech act domain, with *rewind* even becoming a discourse marker, with the help of the travel-through-space metaphor, the metaphor MIND IS BODY, and other conceptual metaphors. There are four key conceptual metaphors, as described by Lakoff and Johnson (1980, 1999) and Sweetser (1990) that seem to be crucial for the domain of film and photography. Since these conceptual metaphors had already been entrenched when photography and film were invented, they were particularly useful in the conceptualization of the then novel technologies due to their specific relationship with vision, time, and space.

1. TIME IS (MOTION IN) SPACE[8]

This conceptual metaphor is often expressed as one of the two variants:

a) TIME IS THE MOTION OF OBJECTS

(4) The time for action *has arrived*.

(5) The summer just *zoomed by*.

b) TIME IS (MOTION ALONG) A PATH

(6) We're *getting close* to Christmas. (Lakoff and Johnson 1999: 143)

We may also clearly see in this metaphor the origin of the lexemes *flashback*, *flashforward* and *fast forward*, where forward motion corresponds to skipping to future events, while backward motion refers to returning to past events.

2. MIND IS MACHINE

This metaphor may be illustrated with the following examples,

(7) Boy, the wheels are turning now!

(8) My mind just isn't *operating* today.

(9) I'm *a little rusty* today. (Lakoff and Johnson 1980: 27)

while its more contemporary version – MIND IS COMPUTER – subsumes an elaborate set of mappings, as proposed by Lakoff and Johnson (1999):

Table 2. Mappings for the metaphor MIND IS COMPUTER (adapted from Lakoff and Johnson 1999: 231-232)

Source domain:	**Target domain:**
Physical computer	The person (especially the brain)
Computer program	The mind
Formal symbols	Concepts
Computer language	Conceptual system
Formal symbol sequences	Thoughts
Formal symbol manipulation	Thinking
Algorithmic processing	Step-by-step thoughts
Database	Memory
Database contents	Knowledge
Ability to compute successfully	Ability to understand

[8] The metaphor TIME IS SPACE has faced some criticism because of its very broad, abstract nature (Evans 2004, 2005). For instance, Evans (2004) proposes a distinction between lexical concepts and cognitive models, where lexical concepts include specific senses of *time*, such as the Moment Sense in (4) as opposed to the Duration Sense in (5), while cognitive models are a more abstract level, where the so-called MOVING TIME MODEL corresponds to what is described as TIME IS THE MOTION OF OBJECTS, while the MOVING EGO MODEL corresponds to TIME IS (MOTION ALONG) A PATH. We find this interpretation particularly applicable to our examples and we shall therefore refer to this conceptual metaphor as TIME IS (MOTION IN) SPACE in the remainder of the paper.

3. Knowing is seeing

Vision is discussed as a target domain in SEEING IS PHYSICAL MANIPULATION, both in Lakoff and Johnson (1980, 1999) and in Sweetser (1990: 32), who lists examples of words such as *behold*, *catch sight of* and *perceive* (< Lat. *-cipio*, 'seize'). However, as discussed above, she also proposes vision as a source domain in KNOWING IS SEEING as evidenced by expressions such as *I see* (in the sense of knowing or understanding) or *oversee*, *hindsight*, *see to* and *foresee*, which today have only mental meanings (Sweetser 1990: 33-34). Additionally, she notes that "an argument or a proposition may be '(crystal)-clear,' 'opaque,' 'transparent' (…) to our mental vision" and that "someone who concentrates on one particular set of issues (…) is said to have 'tunnel vision'", while "intellectual 'breadth' of vision would be the opposite" (Sweetser 1990: 40).

Although this conceptual metaphor did not directly influence the coining and metaphorical extensions of photography and film terminology in the way that TIME IS (MOTION IN) SPACE or MIND IS MACHINE did, its influence is clearly visible in the later development of these lexemes because of the special relationship between vision, knowledge, and visual narratives like films.

4. Subjective/intimate is close

This metaphor is mentioned in passing by Sweetser, who contrasts it with the association between *vision*, *objectivity*, and *distance*, stating that the "the objective and intellectual domain is understood as being an area of personal *distance,* in contrast to the intimacy or closeness of the subjective and emotional domain" (Sweetser 1990: 39), and listing examples such as:

(10) We may keep someone *at a distance* by keeping the conversation intellectual.

(11) If we feel too *close* to someone, then maybe we can no longer be objective about that person.

Once again, although it is not certain that this conceptual metaphor influenced the coining of lexemes such as *close-up*, it undoubtedly affected the meaning of such expressions in the following decades.

Much as Sweetser points out in the case of SEEING, which can be the target domain in some metaphors and the source domain in others, so too can photography and film become source domains regardless of their original status. It is precisely their transformation and use as source domains that the rest of this paper will concern itself with.

3. Methodology

Initially, 27 lexemes and phrases related to film and photography were selected based on several resources, such as the *Film and theater* page at oxfordlearnersdictionaries.com, Cambridge Dictionary's online *SMART Vocabulary* tool, Merriam-Webster's *Time Traveler* tool, and Rice University's *Film Glossary*. This pool was then narrowed down to the 14 entries presented and discussed below, based on a noticeable rise in the frequency of their (literal) meanings related to photography and film at the beginning of the 20th century when the latter visual art appeared, and the attested new/metaphorical meanings that were clearly an extension of the literal use in later periods. For instance, lexemes such as *jumpcut*, *photofinish*, *photomontage,* and *photobomb,* and expressions like *through a/an [adj] lens* were excluded early on due to their very low frequencies. Others, like *nickelodeon* and *montage*, did not truly undergo a shift in meaning: the sudden change in the corpus when *nickelodeon* became the name of a television channel is notable, but not quite relevant for our study; *montage* refers either to Soviet Montage Theory or to the film editing technique in which a sequence of short shots condenses narrative time (as in the cliché of the "training montage"), but this meaning is very rarely metaphorically extended in the corpora. Finally, the data for the lexemes such as *cameo* and *vignette*, both of which predate the invention of photography, showed a clear preference for other art forms and relatively rare metaphorical uses.

Data was collected from the Corpus of Historical American English (COHA) (Davies 2008), which covers the time period from 1820 to 2019, and the Corpus of Contemporary American English (COCA) (Davies 2010), which covers the period from 1990 to 2019,[9] via https://www.english-corpora.org, making sure to cover all spelling variants of each lexeme (such as *flashback*, *flash-back*, and *flash back*), which were later analyzed together.

In COHA, which offers results by the decade, the concordances for each decade were manually inspected and corrected, especially to exclude homonyms and camera directions from film scripts, which made up a significant portion of the concordances for some lexemes in the early 20th century. While dialogue from film scripts was included, the decision to exclude camera directions was based on the fact that these texts were only accessible to a specialized fraction of general population and were therefore not reflective of general language use at the time, nor could they have greatly impacted it. As the irrelevant concordances were excluded, the relevant ones

[9] COHA is the largest structured corpus of historical English. It contains more than 475 million words of text from the genres of TV and movies, fiction, magazines, newspapers and non-fiction, and it is balanced by genre decade by decade. COCA is a large and balanced corpus of American English with more than one billion words of text (25+ million words each year 1990-2019) from eight genres: spoken, fiction, popular magazines, newspapers, academic texts, TV and movies subtitles, blogs, and other web pages.

were identified and classified based on their semantic and syntactic features: the use of the lexeme or expression in each given context was classified as either *literal*, *(transferred to) other art forms*, or *metaphorical*, with some lexeme-specific additions or occasional uses in similes. The syntactic categories and patterns of use were determined for each lexeme in question (for example, *close-up* never appears as a verb but is often found as part of the prepositional phrase *in close-up*, while *rewind* is usually a verb, but never appears in any prepositional phrases), and included the categories of *noun*, *verb* and *adverb*, as well as the function of *modifier*, and frequent uses in prepositional phrases that we may consider collocational. At this point, the imperative mood has been counted separately from other verb forms due to its high prevalence in certain cases.

This process was repeated with COCA, which offers results based on 5-year periods, with the key difference that all concordances in this much larger corpus were not manually sifted. Rather, a random sample of 20 concordances per 5 years (after excluding homonyms and camera directions) was selected using the "Sample" feature. Putting aside justifications such as the much larger size of this corpus and the resulting higher frequencies, it was simply not necessary to comb through COCA in the same way as COHA for three reasons: firstly, film scripts make up a significant portion of COHA, especially in the early 20th century, and their inclusion would have seriously altered the statistics. For example, the raw frequency for *close-up* in the 1920s plummets from over 2000 to only 23 tokens once camera directions are ruled out. Such cases were not found in COCA; secondly, as the frequency of these lexemes rises, the use of homonyms is outnumbered and becomes statistically irrelevant. For example, including COHA concordances with *zoom in* and *zoom out* as motion verbs skews the data for these relatively infrequent verbs, but their much higher frequency in COCA acts as a buffer; thirdly, since COCA partially overlaps with COHA and only covers a comparatively short time period which is predated by even the newest lexemes, its data was expected to act as a continuation or confirmation of trends that were previously identified in COHA rather than as a source of entirely new information.

Patterns of semantic shift for each lexeme and between lexemes were identified and analyzed within the framework of Conceptual Metaphor Theory, and the identified new senses were compared to dictionary entries in Cambridge English Dictionary and Merriam-Webster Dictionary.

4. Results

In this part we present the corpus data for each lexeme's absolute frequency in COHA and COCA (Table 3) and discuss the semantic and syntactic properties and patterns found in these corpora. Each lexeme is listed under its most frequent

spelling variant, but all variants are included in the total frequency and data for COHA. As noted above, COCA was mostly used to confirm the trends established in COHA on a larger and more contemporary corpus. For COCA the most common variant was selected as representative, except in cases when the variants showed very different results, as in *flashback* and *flash back.* Where applicable, corpus data is briefly backed up with corroborating etymologies and chronologies provided by the *Oxford English Dictionary*, the *Merriam-Webster Dictionary*, and the *Online Etymology Dictionary*.

We next discuss each lexeme and expression separately,[10] with relevant data presented descriptively or in tables, where appropriate.

Table 3. Frequency of appearance in the relevant corpora (light grey rows for COHA, white for COCA)[a]

	1850s	1860s	1870s	1880s	1890s	1900s	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s	2010s
*flashback**	2	2	1	3	1	2	6	12	7	19	18	18	19	44	53	84	157
															774	991	940
*flash-forward**														2	2	12	11
															32	60	106
*fast-forward**														12	34	51	68
															251	525	760
*close-up**							2	23	29	48	56	106	81	99	138	148	168
															2499	1715	1240
*snapshot**					11	25	38	41	63	78	91	92	127	111	156	222	154
															1222	1359	1156
*slow motion**								3	22	21	35	53	58	67	113	123	157
															799	690	602
*freeze-frame**												1	3	4	13	11	5
															171	103	57
typecast										1	3	2	1	9	8	12	15
															101	94	67
rewind									1	0	2	4	7	11	35	42	40
															315	380	369
zoom in												4	14	24	37	66	102
															313	498	558
zoom out													1	1	0	6	13
															40	55	82
fade to black														1	8	12	13
															152	153	62
be in the picture								1	5	9	6	5	11	4	7	12	11
															151	136	141
out of the picture						1	4	22	54	48	26	17	26	27	29	30	26
															264	279	248

[a] The asterisk marks the most frequent spelling but the number of occurrences for each lexeme refers to all spelling variants

4.1. Flashback

Although *flashback* is by far the most common spelling, the variants *flash back* and the much rarer *flash-back* were also included in the analysis, chiefly to track the development of the rather rare *flash back* from the beginning of the 19th century. As

[10] Whereas some lexemes just acquired metaphorical meanings (e.g. f*lash back, snapshot*), others became parts of collocations (e.g. *in slow motion*) or even idioms (e.g. *(be) in/out of the picture*).

Table 3 shows, this expression was occasionally used to refer to memory from the 1850s onwards (earlier uses refer to light reflecting off a surface or a person "flashing their response back" in a conversation),[11] but its frequency rapidly rises following the invention of film in the early 20th century, which aligns with the account in *Online Etymology Dictionary* of the first use of *flashback* in the film plot sense in 1916. This rise in frequency coincides with the first appearance of the noun *flashback* in a film review, which soon gains prominence and spreads to other art forms, as seen in this stage play review from 1928:

(12) The brain scene ends, and the play continues conventionally (…) again there is a *flashback* to the cerebral. (COHA, 1928)

Furthermore, *flash back*, which originally mostly referred to the mind in set expressions such as *my mind flashed back upon…*, and *flashback,* which referred to the film technique, take on more metaphorical meanings in the 1940s, and these greatly outnumber literal usages by the end of the 20th century, as seen in Table 4.

Table 4. Domains of use for *flashback* and *flash back*, COHA

flashback	**1920s**	**30s**	**40s**	**50s**	**60s**	**70s**	**80s**	**90s**	**2000s**	**2010s**
film	3	1	8	3	5	10	10	9	16	33
other art	1	1	2	6	9	4	13	2	1	16
metaphor			4	3	2	4	14	30	51	81
flash back										
film			2							1
other art		1			1		1		1	1
mind/thoughts	6		2	2	1		1	2	6	8
metaphor	2	4		3		1	5	4	8	17

These metaphorical meanings include the act of remembering (13a), historical meaning of going back in time (13b) and, starting in the 1970s, PTSD flashbacks (13c):

(13) a. Sally had a strange *flashback* to her grandmothers Winlock and Sewell (COHA, 1941)

b. (…) the 1950s and 1960s have in many respects been a historical *flashback* to the 1860s and 1870s (COHA, 1965)

c. The symptoms of PTSD include mental *flashbacks* rooted in combat experiences (COHA, 1980)

[11] It is unclear however whether these uses may have given rise to the use of *flashback* in the film plot sense and then as a sudden memory, in which case we could speak of secondary metaphorization.

The last example also lines up with chronology in the *Online Etymology Dictionary*, which notes that "the hallucinogenic drug sense is attested in psychological literature from 1970." Following the coining of the noun *flashback*, we also encounter examples of *flash back* as a noun, *flashback* used as a modifier and in collocations *in flashback* and *in flash back*. The trend from COHA is confirmed by data from COCA: both variants are nearly always used metaphorically, but their syntactic function remains unchanged, with *flashback* remaining a noun and *flash back* a verb. Noticeable is the use of the imperative form of *flash back* in examples such as

(14) *Flash back* for a moment to Black Monday's 508-point plunge in the Dow Jones (COCA, 1990).

The imperative form first appears in the 1990s, preceded by examples with personal pronoun subjects such as (15), which occur once in the 1960s and become most common in the 21st century.

(15) (…) I *flashed back* to 'Penny Serenade' in 1941 (COHA, 1983)

Prior to this, the most common subjects were noun phrases with possessive pronouns and head nouns such as *mind* and *thoughts*, starting in mid-19th century with examples like (16):

(16) (…) her thoughts *flashed back* over years of remorse (COHA, 1856)

The data from COCA confirms these trends, with personal pronouns remaining by far the most frequent subjects, followed by noun phrases headed by *mind* or *thoughts* and by imperative forms. Table 5 illustrates various syntactic patterns found in COCA in which the verb *flash back* is found.

Table 5. Syntactic patterns for *flash back*, COCA

flash back	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19
sb's mind flashes back to	5	2	2	6	3	1
to flash back upon/into sb's mind			1			
flash back upon/to sb	1					
to flash back (intrans.)			1		2	1
story/book/author flashes back to	2	2		2	3	2
sb flashes back (to)	7	12	16	12	9	12
let's flash back (to)					3	
flash back (to) (imperative)	5	4				2

4.2. Flash forward

While the *Oxford English Dictionary* traces *flash forward* as far back as 1919, the case in COHA is more straightforward, as it appears to be a backformation of *flash-*

back in the 1980s and has remained relatively infrequent, with only two occurrences in 1980s and 1990s and 11 occurrences in 2010s. COCA notes the first appearance in 1990s with 32 occurrences, which rose to 106 occurrences in 2010s. Despite its relative rarity, the lexeme was included in the analysis due to its relationship with *flashback* and its highly metaphorical nature. This lexeme is nearly always used in a metaphorical sense, as in

(17) a. *Flash forward* 15 years. It is September 1983, and Frank Reynolds, ABC's anchor of many years, has recently died. (COHA, 1988)

b. The return trip is always an exceedingly brief *flash-forward*. And there the dream always abruptly ends. (COCA, 2001)

While *flash forward* in COHA is almost exclusively used as a verb in the imperative (with only a single occurrence as a noun in 2010s), *flash-forward* has an equal number of appearances as a noun and as a verb, with a strong tendency to appear in the imperative form. Unlike *flashback*, neither of the two lexemes ever appeared in a modifying function and the spelling *flashforward* was never attested. These trends are once again confirmed by COCA, where *flash forward* was used in the domain of film only 11 times over the course of almost 30 years. In that same period, it was used 81 times in a metaphorical sense, mostly as a verb in the imperative mood.

4.3. Fast-forward

Although the *Oxford English Dictionary* traces *fast forward* to 1947 as a noun and to 1965 as a verb, it first appears in COHA in the 1980s, much like *flash forward,* and follows some of the same trends. However, *fast-forward* is significantly more frequent and shows a more rapid growth, as may be seen in Table 3. The uses of both *fast-forward* and *fast forward,* as well as the infrequent *fastforward*, are overwhelmingly metaphorical, as in (18):

(18) a. I've already ordered Beach Head to *fast-forward* the training of our new recruits. (COHA, 1987)

b. Seems like this old world is on *fast forward* nowadays. (COHA, 1989)

These metaphorical uses become more frequent with each decade, rising in COHA from just four for both *fast-forward* and *fast forward* in 1980s to 45 and 14 respectively in 2010s. At the same time uses in the original domain of film remained well under 10. The two forms are mostly used as imperatives, as in

(19) *Fast forward* to May 6, 1990. The place the now abandoned seaplane hangar (COCA, 1990)

This use shows a steady rise in frequency starting in the 1990s, as seen in Table 6:

Table 6. Syntactic patterns for *fast-forward* and *fast forward*, COHA

fast-forward	**1980s**	**1990s**	**2000s**	**2010s**
noun		1	1	2
modifier	1	1	6	2
imperative		6	6	27
verb	2	9	19	16
into/on/in fast-forward	2	4	1	4
fast forward				
noun	1	1		1
modifier				1
imperative		3	10	11
verb	2	2	5	1
into/on/in fast forward	4	5	2	1

The data from COCA corroborated these trends, with nearly all uses (16 in each 5-year period from 1990 to 2015) being metaphorical and showing a clear preference for imperative forms (17 from 2015 to 2020 as opposed to only one use as a finite verb in the same period).

4.4. Close-up

Things are not as clear in the case of *close-up*, which started out as a photography term. This is mostly because of the existence of the phrase *close up* meaning 'near', which predates both photography and film and whose usage can be traced back to the earliest entries in the corpus. On the other hand, *close-up* (also sometimes written as *close up* or *closeup*) clearly belongs to photography and film terminology, denoting "a photograph or movie shot taken of a subject or object at close range intended to show greater detail to the viewer."[12] It first appeared in the 1900s in screenplays and came into use in COHA in the 1910s. This timeline matches the *Oxford English Dictionary*'s earliest evidence for *close-up* in 1913, while *Merriam-Webster* traces the first usage of the lexeme as an adverb or adjective to 1926. To keep the data relatively clean, examples of *close up* were only included in our analysis if they could be unproblematically linked to the domain of film, as in

(20) A tourist [sic] takes a *close up* photo with her smartphone. (COCA, 2017)

As with the previous lexemes, metaphorical uses begin to appear around the advent of commercial film technology and their overall frequency does see a steady

[12] https://www.studiobinder.com/blog/close-up-shot/ Accessed 1st December 2025.

rise, at least in the case of *close-up* meaning 'better/clearer/more detailed' in examples such as

(21) To give the lay reader a chance to 'explore the times' and to get a *close-up* picture of the rapid succession of present-day events. (COHA, 1933)

and in riffs on Gloria Swanson's line "All right, Mr. DeMille, I'm ready for my close-up" from *Sunset Boulevard* (1950). However, literal usages of both *close-up* and *closeup* remain by far the most frequent. On the other hand, a much stronger shift occurs with *close up*: setting aside the very rare examples in which it refers literally to photo and film technology and the even rarer metaphorical extensions of such uses, there is a clear shift in the meaning and context of the adverb *close up* starting in the 1920s. For much of the 19th century, it was a relatively common adverbial of location, in expressions such as *(to) go close up to something* and the more frequent *(to) be close up to something*. In every example in the corpus, *close up* refers to destination or location in the sense of 'near', and is always combined with prepositions such as *to*, *by*, and *behind.* The 1920s see the arrival of examples which also refer to the manner of perception ('intently'), rather than just motion, as in

(22) He stared at the newspaper *close up.* (COHA, 1920)

These usages, which are seldom combined with prepositions, rapidly grow in frequency, expand to other forms of sense perception and cognition, all but squeezing out the original sense. This shift is paralleled by a rise in the use of *close-up* as an adverb, but also as a modifier in examples which also refer to vision and perception (23a), and knowledge and cognition (23b):

(23) a. (…) give the crowd a *close-up* view of the Italian flier. (COHA, 1933)

b. (…) as one who has been practically living in boats headed for and back from the Davis Cup front since 1928, and who has been in a position to get a *close-up view* of what has been going on behind the scenes. (COHA, 1935)

The syntactic behavior of all three variants remained stable, with *close-up* largely appearing since 1910s as a noun or in modifier function, and *closeup* almost exclusively as a noun. The oldest form, *close up*, has a steady presence as an adverb since 1820s, with only a handful of examples of nominal use.

The data from COCA corroborate these findings: *close-up* remains a noun or a modifier mostly used in its literal, technical sense (five metaphorical uses vs. 17 literal ones between 2015 and 2020). *Close up* on the other hand shows the opposite tendency and is mostly used metaphorically (15 such occurrences vs. only five in the literal sense in the same period). The latter lexeme most often appears as an adverb describing perception, which is taken to be metaphorical usage based on the examined historical data. Both terms sometimes appear in collocations *in close-up/close up* and *from close up*.

4.5. Snapshot

Although there are a handful of examples in COHA dating back to the 1840s in which *snapshot* and its variants are used to refer to firearms, and to which its later photographic sense may well be traced back, the lexeme only becomes sufficiently frequent to analyze and begins taking on metaphorical meanings in the 1890s. This rise matches the first attested use of the term in 1890 in the sense of 'photograph shot with a hand-held camera' (*Online Etymology Dictionary*), most likely due to the introduction of point-and-shoot cameras in 1888 (*Dictionary of Archives Terminology*). As seen in Table 3, the lexeme then shows a rapid rise in frequency, going from 25 in 1900s to 222 in 2000s. It should be noted that the other two spelling variants, *snap-shot* and *snap shot*, have virtually died off by 1930s.

Like with *close-up*, metaphorical uses of *snapshot* in the sense of 'quick, instant (action/view)' are present from the very beginning, but they fail to outnumber the literal ones despite their overall steady rise (with a sudden jump from only four and eight in the 1970s and 1980s respectively to 28 and 56 in the 1990s and 2000s). Thus, there were only 28 metaphorical uses of the term as opposed to 120 literal ones in 1990s. Examples of the former refer to quick, momentary or thoughtless actions, as in

(24) The *snapshot* judgment upon every man with a bandaged head is that he has been in a street fight. (COHA, 1909)

and, in more recent decades, to condensed datasets or illustrations of a moment in time, as in

(25) Case studies of several southern states and cities provides a more revealing *snapshot* of the recent Hispanic migration and its impact. (COCA, 2003)

The syntactic behavior of *snapshot* is unremarkable, as it nearly always appears as a noun with only a few instances of modifier use, especially in the 2000s. Unlike the previous lexemes we discussed, *snapshot* remained virtually unchanged until the turn of the century, making it harder to identify trends with any certainty. Still, the data from COCA confirmed its increased metaphorical usage in the 21st century. In some cases, these occurrences even slightly outnumbered literal ones, which was not the case in COHA. The lexeme remains almost exclusively a noun, despite a slight increase in modifier uses in the 2000s.

4.6. Slow motion

At first glance, *slow motion* may seem to suffer from the same problem as *close up* because of examples in which this expression is simply referring to motions that are slow. However, such usages were easy to filter out and were not very frequent to begin with. This was partially aided by the fact that *slow motion*, both as a film term

and as a collocation in its extended metaphorical sense, is most often used as part of the expression *in slow motion*, which never occurs in any other sense. Like most of the other analyzed lexemes, it sees a linear increase in frequency following its appearance in the 1920s (see Table 3), which matches the *Merriam-Webster* account of its first appearance in 1915 as an adjective, and then as a noun in 1924.

Unlike *close-up* and *snapshot*, which remained mostly literal, *slow motion* soon became a collocation and underwent a steady rise in metaphorical meanings, going from 13 in 1950s to 64 in 2010s. Additionally, *slow motion* is the only term so far with a relevant and growing number of uses in similes:

(26) (…) floating along the sidewalk like a figure in a *slow motion* picture. (COHA, 1933)

As noted above, *slow motion* is almost exclusively used as part of a larger collocation *in(to) slow motion*, while *slow-motion* usually acts as a modifier, as in

(27) There's a kind of *slow-motion* military coup under way. (COCA, 1991)

The sample from COCA shows a slight but negligeable preference for literal uses compared to COHA but metaphorical uses outnumber them in both corpora, with an occasional but steady number of occurrences in similes. As expected, *slow-motion* nearly always acts as a modifier (107 instances compared to only two uses as adverb between 1990 and 2020), occasionally appearing in the collocation *in slow-motion*.

4.7. Freeze frame

Like *flash forward* and *fast forward*, *freeze frame* is relatively infrequent and only appears around the end of the 20th century, but it was still included because of its semantic similarity to *snapshot* and the syntactic patterns it shares with several other analyzed lexemes. The data from COHA roughly matches the entry in the *Oxford English Dictionary*, which traces the first occurrence of *freeze-frame* to 1960 and the first use of the term as a verb to 1983. As may be seen in Table 3, its frequency peaked in the 1990s and 2000s. The uses are often metaphorical, especially during the high point in 1990s, but there is not a clear preference for either literal (28a) or metaphorical (28b) sense:

(28) a. I also want a blowup and a *freeze-frame* on her face. (COHA, 1974)

b. (…) in the still-life *freeze-frame* I carry of Mariellen. (COCA, 1994)

There was therefore not enough data to identify a trend in semantic shift. Similarly, there was no apparent syntactic trend that could be observed, other than an obvious preference for the nominal form in the 1990s. However, it may be of interest that the imperative form, as the earliest usage, mostly persisted, as in

(29) *Freeze frame* on a tableau out of Goya or Bosch. (COCA, 2002)

The higher frequency in COCA allows a better analysis of the two variants: while both show a preference for literal uses over decades (notable for *freeze frame*, which is rarely used metaphorically, and slight for *freeze-frame*), the latter also favors simile (Table 7).

Table 7. Domains of use for *freeze frame* and *freeze-frame*, COCA

freeze frame	**1990-99**	**2000-09**	**2010-19**
film/photo	24	9	16
other art	1		1
metaphor	7	8	8
simile	1		
freeze-frame			
film/photo	15	20	7
art	1	2	
metaphor	20	9	10
simile	3	4	2

Both terms are almost exclusively used as nouns, but when used as a verb *freeze frame* is more likely to be found in imperatives.

4.8. Typecast

According to the *Online Etymology Dictionary*, the lexeme *typecast* first appears in 1927,[13] while the *Oxford English Dictionary* notes the earliest use of the verb from 1940s. Outside of occasional uses referring to printing, which date back to the 1910s, *typecast* first appears in COHA in 1943 with

(30) (…) he dreaded being *typecast* in films. (COHA, 1943)

and remains relatively infrequent, even seeing a drop in the last two decades of the 2000s in COCA, from the earlier 101 to 94 and 67 respectively. Its usage remains largely literal, but there are still notable examples of its metaphorical sense, especially in the mid-20th century, as in

(31) In appearance, manner and background, Macmillan is *typecast* for Foreign Secretary. (COHA, 1955)

This trend continues in the 21st century in COCA, where literal uses are double the metaphorical ones. However, the term never gets used outside the domain of film. Since *typecast* always appears as a verb and displays no remarkable variations

[13] The verb *cast* in the meaning of assigning a role in a film comes from theater language, with the first recorded use dating back to 1711.

in argument structure or mood, we did not further analyze the lexeme's syntactic behavior.

4.9. Rewind

Excluding very rare uses of this lexeme referring to the act of winding something such as silk, *rewind* is first used to refer to film stock in 1895 in

(32) The photographer was rapidly *rewinding* his roll (COHA, 1895)

After a long pause, it appears again in the 1930s, coinciding with the first recorded use in the *Online Etymology Dictionary* with the meaning of a 'mechanism for rewinding film or tape' in 1938, and seeing a marked rise following 1980s, presumably due to the spread of commercial cassette decks at the time (cf. Table 3).

Although *rewind* was originally used to refer to film reels and especially audio technology such as cassette tapes, this usage peaked in 1990s with three times more examples than in 1980s but then faced a gradual decrease as the number of metaphorical uses sharply rose from the year 2000 onwards. Such metaphorical uses include examples like

(33) I *rewind* the crime scene in my mind. (COCA, 2006)

Alongside this increased metaphorization, *rewind* underwent some syntactic changes as well, with a sharp drop in instances of nouns in 2010s (such as *hit rewind*, which are really modifiers of elided nouns in *hit the rewind button*) and a gradual increase in imperative forms, as in

(34) *Rewind* back to February 2008. (COCA, 2012)

During this period the use of *rewind* as a finite verb remained stable and even outnumbered its nominal use by four times.

The data from COCA confirmed this trend, with metaphorical senses gradually outnumbering literal ones after 2015, although the contrast is not as sharp. At the same time a steady increase in imperative and discourse marker uses may be noticed – there were only eight occurrences of *rewind* as a noun between 1990 and 2015 and 60 verbal uses of the term in the same time span.

As with *flash back* above, *rewind* showed some interesting patterns in its argument structure and was frequent enough to collect a sufficient amount of data from COHA. In this case, alongside its subjects, the verb's direct objects (or lack thereof) were relevant, considering a suspected shift in transitivity. Because this shift seemed to be linked to the increased metaphorization of *rewind,* both its literal and metaphorical uses were further analyzed. We observed a clear rise in imperative forms across the board starting in the 1990s. However, a more typical feature of the

increasingly metaphorical use of the verb *rewind* is its increased intransitivity: this typically transitive verb (*He clicked off the last shot and began rewinding the film* (1983)) first sees a significant number of intransitive uses in the 1990s, but these are nearly all still literal in meaning, in examples such as

(35) As the tape *rewinds* again, he says. (COCA, 1996)

These mostly seem to coincide with the growing availability of auto-reverse cassette players. In the following decades, however, there is a clear rise in metaphorical uses, both transitive (often with pronominal objects or placeholder nouns like *the tape*),

(36) What do you want me to do? (…) *Rewind* everything? Turn the clock back? (COHA, 2002)

and intransitive, sometimes with a personal pronoun subject, as in

(37) I can't take that back. I can't *rewind*, you know. (COCA, 2015)

An increasing preference for imperative uses is noticeable, as in

(38) I can't believe what I've just heard! *Rewind*! (COCA, 2006).

It needs to be noted that example (38) also happens to be one where we may speak of *rewind* used as an interpesonal interactional discourse marker expressing amazement (cf. Maschler 1998), thus representing the last step on the path of development from the propositional to the textual and expressive domains, as proposed by Traugott and Dasher (2001). *Rewind* in this context completely complies with Brinton's and Traugott's (2005: 138) claim that discourse markers "lose concrete perceptual meaning (desemanticization), shift from propositional to pragmatic function, [and] come to encode features of speaker attitude."

While both literal and metaphorical uses of *rewind* see an increase in intransitivity after 1990s, metaphorical uses are overwhelmingly intransitive, whereas literal ones do not show a clear preference either way. In other words, while intransitive instances of *rewind* rise across the board in 1990s, they are more frequently used metaphorically, while transitive instances are typically literal. The data from COCA corroborated these findings.

4.10. Zoom in

The *Online Etymology Dictionary* traces back the 'zoom lens' sense of the verb *zoom* to 1936. Outside of its use as a motion verb in the 1930s, *zoom in* first appears in COHA in screenplays in the 1950s, enters the scope of this analysis in the 1960s, and has been rising in frequency with each decade (see Table 3). For much of its existence, *zoom in* was used in its literal sense, with the occasional metaphorical use referring to perception or attention, as in

(39) In the next few weeks Washington will *zoom in* on TV violence. (COHA, 1968)

However, as Table 8 illustrates, from 1990s onward, it is increasingly used to refer to other art forms and especially to other digital technologies, even outnumbering in COHA the original sense in the 2010s, likely due to the rise of touch screens, as may be seen in

(40) (…) browser plug-in that allows anyone with an Internet connection to *zoom in* on a Smithsonian object. (COCA, 2014)

Table 8. Domains of use for *zoom in* (light grey rows for COHA, white for COCA)

zoom in	**1960s**	**1970s**	**1980s**	**1990s**	**2000s**	**2010s**
film/camera	2	11	21	28	41	40
				28	26	28
other art/tech.			1	6	18	57
				9	6	10
metaphor	2	2	2	3	7	5
				3	8	2

The data in COCA still show the prevalence of literal sense, while metaphorical uses such as (41) become slightly more prominent in 2000s.

(41) Up next, the political cartoons of the week, and we'll *zoom in* on the debate over public security. (COCA, 2002)

Since *zoom in* always appears as a verb and displays no remarkable variations in argument structure or mood, we did not further analyze the lexeme's syntactic characteristics.

4.11. Zoom out

Interestingly, *zoom out* appears as a motion verb a decade earlier than *zoom in*, but is first used in a screenplay a decade later and remains notably less frequent than its antonym. Like *zoom in*, it is mostly used literally and is transferred to the domain of other technologies in the 21st century, although such instances are rarer, while metaphorical uses such as (42) appear from 2010s onwards.

(42) a. Let's *zoom out*. You mention presidents Eisenhower, Kennedy, LBJ, Ford, and Reagan in passing. (COCA, 2016)

b. (…) it's also important to *zoom out* and understand why companies are doing this (COCA, 2018)

COCA confirmed this impression of relatively infrequent extensions to other art forms and digital technologies, as well as an increase in metaphorical uses in the

previous decade which equaled in number literal uses from 2015 onwards. Much like *zoom in*, *zoom out* always appears as a verb and displays no remarkable variations in its syntax.

4.12. Fade to black

Although the phrase first appears in screenplays as early as the 1950s, *fade to black* does not enter common usage in COHA until 1980s and remains relatively frequent in both corpora. Its metaphorical potential is almost immediately used, with metaphorical, euphemistic references to death or the end of a career, such as

(43) Was she dead already? *Fading to black*? (COCA, 1992)

paralleling literal ones from 1990s onward. In the 21st century, a significant portion of occurrences in COHA refers to other art forms and digital technologies, especially astronomy, as in

(44) After the extremely bright burst finally *faded to black*, an international team (…) painstakingly constructed its afterglow (COCA, 2019)

However, such usages do not seem to be represented in COCA, while metaphorical instances of what has by that time become an idiom continue to rise in frequency at the expense of literal ones, going from 11 in the last decade of the 20th century to 43 in the following two decades.

As is the case with many idioms in general, *fade to black* displays no remarkable variations in its syntactic behavior.

4.13. In the picture

The idiom *(be) in the picture* as it is used today first appeared following the spread of film technology and originally referred to the content of a motion picture or one of its frames. For this reason, incidental uses of the expression which clearly refer to paintings and have no metaphorical meanings were excluded. The *Online Etymology Dictionary* lists the first metaphorical uses of both *in* and *out of the picture* as dating back to 1900. The expression first appears in a screenplay in 1920s, and its relative frequency (excluding screenplays) begins to rise around this time (see Table 3). At the same time, metaphorical uses begin to appear, such as

(45) a. And this is much more *in the picture* if you want to be Mary Ogden again. (COHA, 1923)

b. All that time the Nationalists were hardly *in the picture*. (COHA, 1927)

Since the year 2000 such examples have all but wiped out the literal uses of *in the picture*, with 36 metaphorical uses vs. four literal ones in the first two decades of

the 21st century. The data from COCA continues this trend, with metaphorical uses making up all 20 randomly selected concordances from 2010 to 2020. Like other idioms, this one does not show any remarkable variation in syntactic patterns in which it appears.

4.14. Out of the picture

Predictably, the expression *out of the picture* appears in COHA around the same time as *in the picture* and follows a similar path, first appearing in screenplays in the 1910s and gradually growing in frequency in the following decades. Like *in the picture*, its frequency peaks in the mid-20th century but remains high both in COHA and in COCA, ultimately remaining the more common of the two expressions (see Table 3). However, outside of screenplays, the idiom is found exclusively in metaphorical use from the very beginning, such as

(46) a. (…) the sadness of my life in exile had faded *out of the picture.* (COHA, 1917)

b. (…) protested against the British and French disposition to crowd the Arabs *out of the picture.* (COHA, 1920)

This is also the case with the data from COCA although there were coincidentally two literal uses in the random sample from the early 1990s, as in

(47) You'll walk *out of the picture*? I gave him final cut. (COCA, 1991)

Once again, since *out of the picture* always appears as an idiom, it displays no remarkable variations in its syntactic behavior.

5. Discussion

All four hypotheses were supported by our findings: each of the lexemes and expressions underwent metaphorically driven semantic changes in the expected order, often linked with syntactic changes, with photography and film serving as source domains in the underlying conceptual metaphors. Based on a more detailed overview of the kinds of metaphors and their chronology, the discussion suggests an outline of the various conceptual metaphors at play and their relationships. Additionally, the different senses of each lexeme found in the corpora are compared with the definitions provided by the *Cambridge Free English Dictionary and Thesaurus* and *Merriam-Webster* to observe how accurately and exhaustively more recent developments have been described in these sources.

Four conceptual metaphors were listed at the beginning of this paper: TIME IS (MOTION IN) SPACE, KNOWING IS SEEING, MIND IS MACHINE, and INTIMATE/SUB-

JECTIVE IS CLOSE. As well as helping conceptualize photography and film in the first place, these metaphors and their combinations may have taken up elements of these new technologies as source domains. As photography and film became more widespread, they ceased to be new and unfamiliar concepts that need to be conceptualized using familiar ones and instead became useful tools for understanding notoriously abstract domains such as, for instance, the mind, the self, life, and history. In other words, "new polysemies tend to be attracted to already extant conceptual structures, i.e. they are additions to a given meaningful category on the onomasiological level" (Traugott and Dasher 2001: 280). The following is an outline of the chronology of these shifts in meaning, based on the corpus data presented in the previous section. The various senses of each lexeme or expression tend to overlap chronologically, meaning that there are no sharp breaks or sudden losses of an older meaning. This is to be expected, both in semantic change in general and in relation to the phenomena described in the literature: Traugott and Dasher note in their conclusion that they found no evidence "of an older meaning disappearing exactly at the point in time that a new one is semanticized: old and new meanings typically coexist in the same text" (Traugott and Dasher 2001: 280).

In the following sections we present new conceptual metaphors that underlie the novel uses of lexemes and expressions from the domain of photography and film.

5.1. KNOWING WELL IS SEEING UP CLOSE

The first proposed new conceptual metaphor is simply a combination of KNOWING IS SEEING and SUBJECTIVE/INTIMATE IS CLOSE, namely, KNOWING WELL/INTIMATELY/FOCUSING ON IS SEEING UP CLOSE. Examples from everyday contemporary language include:

(47) a. What did fame look like *close up*? (COCA, 2003)

b. You see it all, *close up*, when you walk the streets. (COCA, 2005)

c. *Close up,* he looked every bit of his fifty years. (COCA, 2015)

While it may seem natural, as conceptual metaphors tend to do, this metaphor is the first major instance of semantic change among the analyzed lexemes and expressions. Namely, as section 4.4. showed, *close up* first appears in the perceptual rather than the purely physical sense in 1910s, following the commercialization of film and the coining of the film term *close-up*. The shift occurs as this meaning becomes the primary sense of the lexeme in the following decades and increasingly refers to knowledge and cognition rather than vision. At the same time, the meaning of the newly coined *close-up* also increasingly drifts in this direction: it is used as a modifier almost exclusively in the context of vision and knowledge: *close-up photograph* is followed by *close-up view*, *close-up survey*, *close-up study*.

A similar shift is seen somewhat later, in 1960s, in the case of *zoom in/out:* once the lexeme stops referring exclusively to camera movement, it is sometimes used in the context of vision, in the sense of looking at something, but much more frequently it refers to the act of directing one's attention or analyzing something, as in (48):

(48) In the next few weeks Washington will *zoom in* on TV violence. (COHA, 1968)

Both shifts are arguably also influenced by the MIND IS MACHINE metaphor, with vision and cognition being conceptualized and described using camera terminology.

For *close-up*, *Merriam-Webster* lists "an intimate view or examination of something", but the *Cambridge Dictionary* only offers literal meanings. On the other hand, both dictionaries noted figurative meanings of *zoom in*: *Cambridge* lists this meaning as "to notice and give special attention to something", while *Merriam-Webster* notes that *zoom in* is "often used figuratively."

5.2. Mind/memory is film/photo

The next proposed conceptual metaphor is MIND/MEMORY IS FILM/PHOTO, which is certainly an extension of the older MIND IS MACHINE, but also has a specific relationship with the metaphor TIME IS (MOTION IN) SPACE. Namely, although it is not a direct entailment, it nearly always has something to do with time and duration, or rather the stopping, replaying, slowing down or speeding up of time, which is, in the case of both photography and film, really the manipulation of motion in space. The first examples of this metaphor are found with the lexemes *flash back* and *flashback,* with the earliest cases found in expressions such as (49):

(49) a. (…) her thoughts *flashed back* over years of remorse (COHA, 1856)

b. Sally had a strange *flashback* to her grandmothers. (COHA, 1941)

While such uses are found sporadically from the mid-19th century onward, their frequency rises with the arrival of film and the coining of the film term *flashback.* Furthermore, 1940s see the arrival of phrases such as (49b), which gradually become the most common sense of the word. The increasing use of personal pronouns in both cases reflects the equation of the self or mind with the film or machine/camera. Starting in 1980s, a similar shift occurs with *rewind*: the mind and its memories become something that can be rewound, as in (50):

(50) a. Memories of the past and years of untold secrets were tainting her reason (…) She had …. to stop it. She had to *rewind* the tape. (COCA, 1993)

b. For the next three days, to her horror, the sad cinema replayed itself, over and over, as if on fast forward, *rewind*, fast forward. (COCA, 1998)

These senses of *flash back* and *rewind* are also instances of verbs in the physical domain acquiring mental-state meanings (Traugott and Dasher 1987; Sweetser 1983, 1984, 1990): the act of physically rewinding a tape is used to conceptualize the mental state of remembering.

The case of *slow motion* is somewhat similar, with the first metaphorical usages appearing as early as 1920s. In this case, memories are typically films stored in the mind, as in (51):

(51) (…) the drama unrolled before her mind quickly, but with the clearness of a *slow motion* film (COHA, 1935).

While the previous examples all used film as their source domain, it is also possible to use photographs to conceptualize memories. The most prominent example of this is *snapshot*, which has some metaphorical uses from 1890s but takes off in 1990s with examples such as the following:

(52) (…) the scene outside my window burned itself into my memory like a *snapshot*. ..... (COCA, 1996)

In 1960s *freeze frame*, which originally referred to films, started to appear in the same sense as *snapshot*:

(53) (…) in the still-life *freeze-frame* I carry of Mariellen. (COCA, 1993)

Both *Cambridge Dictionary* and *Merriam-Webster* list such meanings under *flashback* and *flash back*: *Cambridge* defines a *flashback* as "a sudden, clear memory of a past event or time, usually one that was bad" and *flash back* as a phrasal verb with the explanation that "if your mind or thoughts flash back to something that happened in the past, you suddenly remember it". *Merriam-Webster* defines a *flashback* as "a past incident recurring vividly in the mind" and *to flash back* as "to focus one's mind on or vividly remember a past time or incident". However, metaphorical senses of *rewind* are not adequately described in the two dictionaries: no such meaning is mentioned in *Merriam-Webster*, while *Cambridge* only hints at it with the definition "to go back, or to make something go back, to an earlier time". Similarly, metaphorical uses of *slow motion* are not described in either dictionary, but *Cambridge* lists that *slow motion* can sometimes be used to mean "slowly moving" in general. The metaphorical uses of lexemes that relate to stopping, rather than manipulating time, *snapshot* and *freeze-frame*, are not listed in *Cambridge*, while *Merriam-Webster* gives a somewhat related definition of *snapshot* as "an impression or view of something brief or transitory" and offers "something resembling a freeze-frame (as in reflecting or preserving a particular moment in time)" as a definition of *freeze-frame*.

The metaphor MIND/MEMORY IS FILM/PHOTO is also related (and may indeed serve as an 'umbrella' metaphor) to the following proposed new conceptual meta-

phors: HISTORY/POLITICS IS FILM, which expands from the domain of mental states to the narrative aspect of history, SELF IS CAMERA/DIRECTOR, which shows a shift from the physical domain to mental-state meanings, PEOPLE ARE CHARACTERS/ACTORS, and DISCOURSE IS FILM, which goes from the domain of mental-state meanings to speech act meanings. We briefly outline each of these metaphors.

5.2.1. History/politics is film

This metaphor shows a shift from physical to mental state and from there to the domain of a narrative act. The evidence of this is the development of the expression *slow motion*, with examples such as (54a) first appearing in 1930s:

(54) a. The history of Europe seems to be a *slow-motion* cinema. (COHA, 1932)

b. Cuba's *slow-motion* rebellion begins. (COHA, 1958)

Early examples of such a shift are also found with *flashback* (55a) and *snapshot* (55b), both starting in 1940s:

(55) a. (…) a *flashback* to other declarations of independence. (COHA, 1948)

b. (…) an ugly *snapshot* of America's past. (COCA, 2011)

Around the same time, examples with *in/out of the picture* also start to appear, as in (56):

(56) a. (…) keep him *out of the political picture* (COHA, 1932)

b. Castro was the real concrete menace *in the picture* now. (COHA, 1949)

c. (…) Russia and eastern Europe have gone *out of the picture* as potential customers. (COHA, 1950)

Such examples are quite common, especially in the mid-20th century, before other, romantic or familial senses begin to take over – this shift arguably coincides with a change in the interpretation of the lexeme *picture* in this phrase. Namely, while this lexeme originally undoubtedly referred to a *motion picture*, many speakers nowadays likely interpret it as a *photograph*, since the term *motion picture* has fallen out of favor. Thus, the overall meaning of the expression *in/out of the picture* changed from the literal 'participating in a motion picture/being in the frame' to 'being present in a picture, such as a family portrait' and to 'participating/playing a part in a story' or 'being involved in a situation/relationship.'

The metaphor HISTORY/POLITICS IS FILM also stands behind the uses of the lexeme *typecast*, which are common around the midpoint of the century, starting in 1950s with examples such as (57):

(57) a. In appearance, manner and background, Macmillan is *typecast* for Foreign Secretary. (COHA, 1955)

b. Certainly, Stalin was not *typecast* as a satanic maniac. (COHA, 1982)

It is interesting that such uses of the term *slow motion* are not described either in *Cambridge Dictionary* or in *Merriam-Webster*, although the very general meaning of 'slowly moving' may cover them. The metaphorical senses are not listed in either dictionary for *flash back*, *flashback*, and *typecast* as well. Although *Merriam-Webster* offers "an impression or view of something brief or transitory" as a sense of *snapshot*, there is no indication that the lexeme is often used to describe historical moments or events. However, *Cambridge* offers the related definition of "the way that a particular figure or set of figures gives an understanding of a situation at a particular time", which accurately describes the sense in (55b) above and in many other metaphorical examples from 1990s onwards. Similarly, *Cambridge* offers "not important to or not involved in a situation, unnecessary in a particular situation" for *out of the picture,* while *Merriam-Webster* lists "not involved or playing a part in something; not in the same situation or relationship", as well as "involved or playing a part in something; in the same situation or relationship" for *in the picture.* Once again, these definitions cover the uses listed in examples in (56), but there is no indication that the situation or relationship at hand is often political.

Lastly, the metaphor HISTORY/POLITICS IS FILM seems to be a combination of the already entrenched HISTORY IS NARRATIVE and the newer NARRATIVE IS FILM, which appears around the same time as HISTORY/POLITICS IS FILM. In other words, from very early on, some of these lexemes are also used to describe narratives from literary works and the act of narration itself, as in the following examples:

(58) a. Between chapters devoted to Selma's early years (…) Author Van Etten *flashes back* to… (COHA, 1936)

b. (…) impressionistic travel book on semitropical Russian Georgia, with (…) random *flashbacks* of Georgia's turbulent history. (COHA, 1938)

In the case of *flash back*, having undergone the shift to the realm of mental states, the verb shifts further from mental-state meanings towards speech act meanings (Traugott and Dasher 1987; Sweetser 1990) in examples such as (12) where it describes the act of narration. This literary sense of *flash back* is listed in both *Cambridge* and *Merriam-Webster*, as "a short part of a film, story or play that goes back to events in the past" and "interruption of chronological sequence (as in a film or literary work)", respectively.

5.2.2. SELF IS CAMERA/DIRECTOR

This extension of the metaphor MIND/MEMORY IS FILM/PHOTO is visible in the further development of the verbs *flash back* and *rewind.* In the case of *flash back*, following the appearance of examples such as (49b), where the subject *has* a flash-

back, 1970s see the introduction of the personal pronoun as the subject of the verb itself, as in (15) (repeated here as (59)), which booms in 1980s:

(59) (…) hearing the sobs of the audience that only a few minutes before had been laughing, I *flashed back* to 'Penny Serenade' in 1941, the picture in which… (COHA, 1983)

By the end of the century, personal pronouns have become by far the most common subjects of clauses with *flash back*, as already illustrated in Section 4 of this paper.

Similarly, in 2000s, the verb *rewind* shifts from examples such as (50a) described above to intransitive instances like (60):

(60) a. I can't take that back. I can't *rewind,* you know. (COCA, 2015)

b. I wish I could… *rewind* and go back. (COCA, 2018)

In the following decades, this intransitive *rewind* becomes typical of metaphorical uses. It appears that this shift was aided by the appearance of intransitive forms such as (61) in 1970s, as we have already highlighted in Section 4 of this paper:

(61) It was probably just one of the audio tapes *rewinding*. (COHA, 1974)

Both lexemes show the same shift from the physical domain to mental-state meanings described above, but neither *Cambridge* nor *Merriam-Webster* note the syntactic changes associated with it, such as the use of personal pronouns as subjects. The definitions of *flashback* and *flash back* listed in section 5.2. mostly correspond to these senses, while the entries for *rewind* in both dictionaries are still lacking.

5.2.3. People are characters/actors

The other side of the coin that has the metaphor SELF IS CAMERA/DIRECTOR on one side is another metaphor stemming from the more general MIND/MEMORY IS FILM/PHOTO, namely PEOPLE ARE CHARACTERS/ACTORS. The earliest expressions of this conceptual metaphor are found with *in/out of the picture*, first appearing in 1910s and peaking between 1930s and 1950s. Initially, the phrase was usually used in the context of 'being in on a deal', often in a political context, as in (62a). Another early metaphorical extension involves the verb *fade*, used either as a euphemism for death or to denote a descent into irrelevance, as in (62b). Towards the end of the 20th and the beginning of the 21st century, the idiom is increasingly used to describe familial or romantic relations, as in (62c, d):

(62) a. At that time the Nationalists were hardly *in the picture*. (COHA, 1927)

b. (…) the old-fashioned employer who would 'rather have a man any day' is *fading out of the picture* (COHA, 1926)

c. But I take it the father's *not in the picture*? (COCA, 1995)

d. Is the boyfriend still *in the picture*? (COCA, 1998)

This conceptual metaphor seems to thrive in 1950s, with the appearance of expressions with *typecast*, as in (63), as well as *slow motion*, as in (64).

(63) Donna Summer, who was *typecast* as a disco strumpet (COHA, 1985)

(64) In *slow motion* he reached out his hand and touched her gently on the cheek. (COHA, 1958)

At the same time, the use of *close-up* in this sense begins to grow due to various references to the line "Mr. DeMille, I'm ready for my close-up" from the 1950 film *Sunset Boulevard*. In 2000s, the phrase is expanded to include inanimate objects and events, as in examples (65a, b). Finally, 1980s see the first use of the idiom *fade to black* as a euphemism for death or the end of one's career, with the very popular 1984 song *Fade to Black* by Metallica contributing to its widespread use (66a, b):

(65) a. The Hope Diamond, ready for its *close-up*. (COCA, 2009)

b. The new Southwest Plaza will get its first *close up* this weekend. (COCA, 2015)

(66) a. Was she dead already? *Fading to black?* (COCA, 1992)

b. (…) while Sinatra's career dimmed and almost *faded to black*. (COCA, 2001)

None of these senses are listed in either of the two dictionaries, other than the rather general definitions of *in/out of the picture* noted in the section on HISTORY/POLITICS IS FILM. This is especially surprising in the case of *in/out of the picture* and *fade to black*, where metaphorical senses make up most contemporary concordances in the corpora.

5.2.4. DISCOURSE IS FILM

The final conceptual metaphor that is yet another extension of the metaphor MIND/MEMORY IS FILM/PHOTO is DISCOURSE IS FILM. In section 5.2.1. the case of *flash back* in the sense of literary narration, as in (108), was described as an instance of the shift from mental-state meanings to speech act meanings (Traugott and Dasher 1987; Sweetser 1983, 1984, 1990). This sense is also present in other uses of *flash back* and *rewind* as speech act verbs, as in (67a), usually in the imperative mood, as in (67b, c):

(67) a. Could you tell it and then *flash back* to how she said it? (COHA, 1961)

b. I can't believe what I've just heard! *Rewind*! (COCA, 2006)

c. David, let's just *flash back* for a moment… (COCA, 2010)

These forms first appear in 1980s but only take off in the 21st century, finally becoming extremely frequent in the last two decades. In 1990s and 2000s, the use of the imperative form of *flash back* and *rewind* underwent yet another shift from speech act meanings to discourse markers, and this became by far the most frequent sense of *flash forward* and *fast forward*. As examples (68) illustrate, these forms are often sentence-initial (as is characteristic of discourse markers) and are typical of news reports and other retellings of events:

(68) a. *Flash back* to 1992, when hundreds of business executives… (COCA, 1996)

b. *Fast-forward* to New Year's Day: everyone you know is groaning about the weight they gained (COCA, 1999)

c. *Rewind* to the Indianapolis 500, May 28, 2000 (COCA, 2010)

d. *Flash forward* 20 years and Virant, 42, has not only become a chef… (COCA, 2012)

Just as the previous shifts in the meaning of *flash back* and *rewind* followed the path from the physical domain to mental and then speech act meanings, so did this shift from the propositional to the textual domain described in Traugott (1982) and Traugott and Dasher (2001). In fact, *rewind* arguably even shifts from the textual to the expressive domain in examples such as (67b) above and (69) below, which offer the speaker's commentary:

(69) Hold on (...) *rewind* that shit back (COCA, 2017).

Neither the speech act nor the discourse marker senses of any of these lexemes are listed in either of the two dictionaries we inspected, which may be the most striking finding of this sort. Although several other meanings were also missing, a similar or more general sense was usually provided in at least one dictionary. This is particularly notable because speech act and especially discourse marker meanings make up most of instances of *flash forward* and *fast forward,* and a significant portion of uses of *flash back* and *rewind* in the last few decades.

5.2.5. Mapping the metaphor MIND/MEMORY IS FILM/PHOTO

Based on the examples listed under the KNOWING WELL IS SEEING UP CLOSE and MIND/MEMORY IS FILM/PHOTO metaphors, as well as the four related metaphors above, we propose in Table 9 a set of mappings analogous to those of MIND IS COMPUTER laid out by Lakoff and Johnson (1999: 231-232):

Table 9. Mappings for the metaphor MIND/MEMORY IS FILM/PHOTO

Source domain:	**Target domain:**
Director/projectionist	Physical person (brain)
Film projector/photo album	Mind
Film scenes/photographs	Memories/thoughts, including public memory (history)
Film editing language	Conceptual system/narrative language
Characters/actors	People (in memories/thoughts)
Projecting/directing a film	Narrating/speaking/discourse

Thus, for example, the director or projectionist may use the projector of their mind to *rewind* a scene that includes characters from their past. This scene is represented in a particular way thanks to the editing language of their conceptual system, which stores and processes memories differently depending on their importance, intensity, and so on, using *flashbacks*, *flash forward*, *slow motion*, and *freeze-frames*. The influence of this language is more explicit when the director describes the scene in question, projecting it for others to see in the act of narration or speaking, in which case they might *fast forward* through a boring part. They may also encounter other directors who narrate their own thoughts and memories, creating a discourse, in which they must *rewind* if there is a misunderstanding. When the memories are public, as in narratives of history, the characters or actors are public figures, but the other mappings remain the same: a news report may *zoom in* on certain politicians who have been *typecast* but are not ready for their *close-up*. In the case of photographs, one may flip through the photo album of their mind to find *snapshots* of memories with someone who is now *out of the picture* or has *faded to black*, but whom they got to know *close up*. In other cases, a journalist might present a *snapshot* of a particular moment in public memory when certain public figures or policies were *in the picture*. Interestingly, while one may use a *snapshot* or other photographic language to narrate something, as in a monologue, such forms are not found in discursive functions, in dialogue, which seems to be the realm of filmic metaphors instead.

6. Conclusion

The paper attempted to trace the semantic changes that have led to metaphorical uses of 14 lexemes and expressions stemming from the domain of photography and film technology. To test the hypotheses that (1) new meanings appeared as lexemes grew more frequent; (2) they followed the expected path from the propositional to the textual and expressive domains; (3) these changes were motivated by new conceptual metaphors, taking aspects of this novel technology as their source domains, semantic and syntactic data was taken from the Corpus of Historical American English (COHA) and the Corpus of Contemporary American English (COCA). Aside

from a general proliferation of new meanings and increased use of metaphorical rather than literal senses, the data revealed patterns that suggested six new underlying conceptual metaphors, which were linked to preexisting metaphors and organized roughly chronologically. This chronology, which follows the lexemes from the physical domain to the domain of mental states, and finally to speech acts, coincides with the order of semantic change described by Sweetser (1983, 1984, 1990) and Traugott and Dasher (1987, 2001). The lexeme *rewind* went even further, taking on the function of discourse marker, thus tracing the path from the propositional to the discourse-structuring domain, and finally to the expressive domain, as proposed by Traugott (1982, 1985) early on. A noticeable rise in imperative forms speaks in favor of Traugott's and Dasher's (2001: 85) claim that the English *let's X* construction illustrates a shift from content meanings based in argument structure at the clausal level to pragmatic procedural meanings at the discourse level. This is evident in the use of several expressions that we have analyzed. Namely, their imperative uses are (explicitly or implicitly) of the 'let's X' form and thus enter the realm of speech acts: a case in point are *flashback* in example (14), *flash forward* in (17a), *fast-forward* in (19), *freeze frame* in (29), *rewind* in (34) and *zoom out* in (42a).

The novel uses of the 14 expressions analyzed in this paper may be explained as a result of new conceptual metaphors using photography and film as their source domain, and of the types of shifts typical of semantic change. The senses of each lexeme and expression found in the corpus were compared with the corresponding entries in *Cambridge Free English Dictionary* and *Merriam-Webster Dictionary*, revealing an overall lack of newer meanings in the dictionaries, even when those were most prominent and prevalent in the corpora. Finally, a set of mappings of the overarching MIND/MEMORY IS FILM/PHOTO metaphor that would incorporate most of the described examples and senses was suggested.

As is always the case with corpus-based research, these results are limited by the corpora themselves: despite their considerable size, both COHA and COCA are still only narrow windows into the history of English. Although steps were taken to counteract the unbalanced representation of different kinds of texts, such as the overrepresentation of film scripts in COHA, the corpus data can never be perfect. This is especially true of the less frequent lexemes because their data is more easily skewed. Another limitation is the relatively small number of expressions being analyzed, or rather the finite number of photography and film related lexemes and phrases that have become entrenched and have undergone such semantic change.

Future research could investigate the specific types of texts, contexts, and language communities that favor these metaphorical senses and discourse structuring functions of photography and film-based expressions, as well as their further development. For example, the use of such language in online communities, influenced

by the affordances of touch screen technology and social media, comes to mind: as some of the data from COCA hints at, lexemes such as *zoom in/out* are increasingly associated with users manipulating images displayed on their touch screens, rather than camera directions. At what point is a lexeme's source overshadowed by even newer technological developments, and what effect does this have on its metaphorical uses? The results of this and further research may be used to show how technological advancements influence not only the way we speak, but, more fundamentally, how we conceptualize the world and the act of speaking itself.

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KORPUSNA ANALIZA SEMANTIČKE PROMJENE LEKSEMA I IZRAZA IZ DOMENE FOTOGRAFIJE I FILMA

Izum fotografije i filma zahtijevao je stvaranje novih leksema i izraza koji su s vremenom postupno poprimali nova značenja i širili se na druge domene. Mnoge od tih semantičkih promjena bile su motivirane konceptualnim metaforama (Lakoff i Johnson 1980), a kako su se izrazi učvršćivali, počeli su se koristiti u razumijevanju drugih koncepata. Prednosti novih tehnologija počele su utjecati na način na koji su ljudi percipirali i konceptualizirali svijet, a time i na način na koji o njemu govore. Na temelju semantičkih i sintaktičkih podataka dobivenih iz korpusa povijesnog američkog engleskog jezika (*Corpus of Historical American English*, COHA) i korpusa suvremenog američkog engleskog (*Corpus of Contemporary American English*, COCA), rad prvo predstavlja četiri temeljne konceptualne metafore iz kojih je proizašlo šest novih konceptualnih metafora u podlozi novih uporaba 14 leksema i izraza iz domene fotografije i filmske tehnologije. Semantičkom promjenom ti su leksemi i izrazi stekli metaforička značenja; neki su postali dio kolokacija, dok su drugi postali idiomi. Kronologija tih promjena odgovara redoslijedu semantičke promjene motivirane konceptualnim metaforama kako su ga opisali Traugott (1982, 1985), Traugott i Dasher (1987, 2001) te Sweetser (1983, 1984, 1990), dakle kao pomak iz fizičke domene u domenu mentalnih stanja te iz domene mentalnih stanja u domenu govornih činova. Nova se značenja analiziranih leksema i izraza stoga mogu promatrati kao rezultat novih konceptualnih metafora koje kao izvorišne domene imaju fotografiju i film, pružajući tako daljnje empirijske dokaze za već utvrđene vrste pomaka tipičnih za semantičku promjenu. Zanimljivo je da unatoč njihovoj rasprostranjenosti mnoga od tih značenja nisu navedena u mrežnim izdanjima nekih od najpoznatijih suvremenih rječnika engleskoga jezika.

Ključne riječi: fotografija, film, semantička promjena, konceptualna metafora

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