Noun Compounds in Photography

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Compounding is considered to be the most productive device in coining new words in many languages, including English. Numerous studies have dealt with compounds in recent decades. However, in spite of a large number of works on compounds in the general language, few authors have dealt with compounds in specialized languages. We find studies on compounds in science and technology or architecture, just to mention a few. The present article focuses on compound nouns in photography, a field that has to date not been researched in this regard but is extremely rich and interesting. The aim of this study is to outline the types of noun compounds in photography and to illustrate the range of semantic relationships and morphosyntactic patterns that occur in coining new noun compounds in the photography lexis. In order to carry out the study, a corpus-based approach was followed. The data was gathered from professional photography blogs providing authentic up-to-date lexis. The results show that there is a large presence and variety of patterns of noun compounds in photography, such as noun compounds made up of noun + noun (*photo album*, *time-lapse*, *shutter speed*), verb + noun (*catchlight*, *burn tool*, *protect filter*), adjective + noun (*white balance*, *softbox*, *glowing filter*) and phrase compounds (*depth of focus*, *rule of thirds*, *pan and tilt*).

Keywords: noun compounds; English for Specific Purposes; terminology; lexis; photography

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Compuestos nominales en la fotografía

La composición se considera el proceso más productivo de la formación de nuevas palabras en muchas lenguas, incluyendo el inglés. Numerosos estudios han tratado los compuestos en décadas recientes. No obstante, a pesar del gran número de trabajos sobre los compuestos en el lenguaje general, pocos autores se han ocupado de los compuestos en los lenguajes

de especialidad. Existen estudios sobre los compuestos en la ciencia y la tecnología o en la arquitectura, por poner algún ejemplo. El presente artículo se centra en los compuestos nominales en la fotografía, campo que todavía no ha sido investigado y que es muy interesante y fértil. El objetivo de este estudio es delimitar los tipos de compuestos nominales en la fotografía e ilustrar la variedad de las relaciones semánticas y los patrones morfosintácticos que se encuentran en la formación de nuevos compuestos nominales en el léxico de la fotografía. Para llevar a cabo este estudio se ha seguido la metodología basada en corpus. Los datos han sido recogidos de blogs profesionales sobre la fotografía, los cuales aportan un léxico auténtico y actual. Los resultados demuestran que existe una variedad de patrones de los compuestos nominales en la fotografía, como nombres compuestos de nombre + nombre (*photo album*, *time-lapse*, *shutter speed*), verbo + nombre (*catchlight*, *burn tool*, *protect filter*), adjetivo + nombre (*white balance*, *softbox*, *glowing filter*) o compuestos frasales (*depth of focus*, *rule of thirds*, *pan and tilt*).

Palabras clave: compuestos nominales; inglés para fines específicos; terminología; léxico; fotografía

1. INTRODUCTION

As John Algeo remarks, "most new words come in one way or another from older words," for example by compounding, derivation, shortening or other word formation devices, and he emphasizes that creating a word out of nothing is a very rare phenomenon (2010, 224). Thus, except for a few cases—*Kodak*—that were arbitrary combinations of letters, the majority of new words are made from other existing words. It is believed that compounding—also called composition—is the most common way of coining new lexemes in English (Plag 2018, 131). Numerous attempts have been made to study this type of word formation process within various theoretical frameworks—descriptive (Marchand 1969; Adams 1973; Bauer 1983), generative (Aronoff 1976; Levi 1978) and semantic (Ryder 1994; Benczes 2006), among others. Compound words have been addressed in terms of translation studies (Alemán Torres 1997) and language acquisition (Nicoladis 2006; Parkinson 2015), as well as specialized languages (Soneira Beloso 2015; Fries 2017). With respect to photography, although we do find a significant number of works from different perspectives—historical (Rosenblum 1997; Newhall 2002), anthropological (Sontag 1977), artistic (Scharf 1983; Bourdieu and Whiteside 1996; DuChemin 2011) and, in particular, technical (Evening 2015; Kelby 2018)—research into the language of photography in English is limited. There are a few studies of metaphors in photography in English (Assfalg et al. 1999; Landau 2002; Mykytka 2016) and anglicisms in the language of photography in Spanish (Mykytka 2017), but to my knowledge, no work exists that deals specifically with this particular field from the perspective of word formation. The current study, therefore, aims to partially fill this gap. The main questions addressed are whether the language of photography makes use of nominal compounding and, if so, which noun compounds are present and what are the patterns that occur.

This study will thus make a contribution to both lexicology and photography. The use of photography continues to grow and its importance should not be underestimated. Indeed, it is embedded in our everyday practice. Photography lies at the crossroads between art, science and technology, all fields that have shaped it throughout history and that are advancing apace. This leads to the creation of new words and concepts, including noun compounds, a phenomenon that deserves attention.

This article is organized as follows: section 2 sets out the theoretical framework related to compounding. The objectives and methodology are presented in section 3. The results are analyzed in section 4, and section 5 explains the conclusions and suggests directions for further research.

2. THEORETICAL FRAMEWORK

Despite the great number of definitions of compounds, the majority revolve around the idea that compounds are combinations of two or more lexemes or free forms—nouns,

adjectives, verbs or prepositions—that together form a new lexeme (Adams 1973, 30; Bauer 1983; Booij 2005, 75; Jackson and Amvela 2007, 92). A more detailed definition has been offered by Ingo Plag: "a compound is a word that consists of two elements, the first of which is either a root, a word or a phrase, the second of which is either a root or a word" (2018, 134).

Although, usually, compounds are combinations of two forms, they can form constructions of more elements. This occurs thanks to recursivity (Booij 2005, 76; Plag 2018, 133) or recursion (Bauer 2017, 43), which allows us to add to a compound an unlimited number of elements of the same linguistic nature. To explain recursivity, Plag uses the example of *university teaching award committee member* and suggests that compounds can be divided into binary structures: *teaching award* is made up of *teaching* and *award*, *university teaching award* is made up of *university* and *teaching award*, *university teaching award committee* is made up of *university teaching award* and *committee*, and so on (2018, 132). Plag notes that "at least with noun-noun compounds—new words can be repeatedly stacked on an existing compound to form a new compound" (2018, 132).

2.1. Properties of Compounds

Many authors agree that there are no criteria that would unequivocally distinguish all the compounds in the English language from other categories (Marchand 1969; Bauer 1978; Levi 1978). However, numerous studies have been carried out with the objective of outlining the properties of the various compounds, and it seems that there is unanimity on the fact that compounds may be distinguished from other categories or phrases on semantic, phonological, orthographic, morphological and syntactic grounds.

Firstly, compounds are not always a simple sum of the meanings of their constituents, and often the result is a word with an independent and obscure meaning. Secondly, there is general agreement that compounds are characterized by having the stress on the first component (Bloomfield 1933, 180; Bauer 1998, 70; Jackson and Amvela 2007, 93; Bauer 2017, 126-27). Thirdly, in order to check the compound status of a word we can focus on its orthography. Generally speaking there are three groups of compounds: those which are written together, those that are hyphenated and those written separately. Lang mentions that "a structure composed of two or more words graphically conjoined is undisputedly of compound status" (2013, 65). El-Sayed Atlam et al. affirm that the hyphen is also typical of compounds and is used to avoid ambiguities (2002, 812). Despite this, there is a general assumption that English orthography is quite erratic when dealing with compound words: sometimes the same word can be written as one word, other times it may be hyphenated or even written separately (Bauer 1998, 69; Lieber 2005, 376). Laurie Bauer cites the example of *daisy wheel*, *daisy-wheel* and *daisywheel*—a device used in some printers

that resembles the daisy flower (*Merriam-Webster Dictionary* 2020a)—all of which are correct spellings according to the *Oxford Dictionary of New Words* (Knowles 1997) (Bauer 1998, 96). This does not mean that there is absolute irregularity when graphically representing compounds—short words tend to be joined while long ones tend to be separate (Bauer 1998, 69). Moreover, as Bauer points out "there is evidence of a diachronic shift from multiple orthographic words to single orthographic word" (2017, 5). Another property of compounds is the fact that the two elements cannot be separated by modifiers (Lieber 2005, 377; Jackson and Amvela 2006, 95)—e.g., *truck fast driver or *blue light green, neither of which is possible. For compounds that begin with an adjective, William O'Grady et al. point out another criterion: they cannot be preceded by an intensifier. For example, it is not possible to say *We live next to a very [greenhouse], while We live next to a very green fence is correct (1997, 135). Morphologically speaking, we should point out the inability of the first element to undergo inflection, the whole compound being one lexical unit, which means that, for example, tense is applied to the whole compound—*The player [drop kick]ed the ball*— as are plurality markers—*The [foxhunter]s didn't have a license* (O'Grady et al. 1997, 135)—although there are exceptions, such as *children's hour* or *girls'club* (Lieber 2005, 376). Rochelle Lieber and Pavol Štekauer point out that the syntactic and phonological criteria are the most relevant for distinguishing compounds (2009a, 7). This study, however, does not focus on the phonological criterion since the corpus is written. Finally, Bauer considers another possible criterion for the compound status, listedness, which refers to the fact that compounds are lexicalized and listed in dictionaries (1998, 67-8)§2.1).

2.2. Classifications of Compounds

Compounds can be classfied in different ways: according to semantic classes (Hatcher 1960), syntactic function (Lees 1960) or depending on the form classes that make up the compound (Marchand 1969; Bauer 1983), among others (Bauer 1983, 201). The classification used in the present article is based on the form classes of the elements of the compounds. Specifically, compounds are classfied according to the patterns that occur in their creation. In this we follow Bauer, who distinguishes the following main patterns in nominal constructions: noun + noun (*boyfriend*), verb + noun (*pick-pocket*), noun + verb (*sunshine*), verb + verb (*make-believe*), adjective + noun (*fast-food*), particle + noun (*off-islander*), adverb + noun (*now generation*), verb + particle (*drawback*) and phrase compounds (*son-in-law*) (1983, 202-7). Other less common combinations that should be mentioned—as they have been identified in our corpus—are the so-called *rhyme-motivated compounds*, such as *brain-drain* (Bauer 1983, 212-13).

   Semantic relationships between compounds are also addressed in this article. Semantically speaking, compounds can be mainly divided into endocentric, exocentric and dvandva. In an endocentric compound, one of the elements—usually the right-

hand one—is the head of the construction, so that the compound is a hyponym of its head: *file cabinet* denotes a type of a cabinet, *sky blue* makes reference to a type of blue (Lieber 2005, 378). Exocentric compounds such as *redhead* are not hyponyms of their grammatical head, or they appear to lack a head or to have an external head, and they are also known as bahuvrihi (O'Grady et al. 1997, 136). Finally, in dvandva compounds, also known as copulative, both elements are equally important and there is no head—*washer-drier*, *blue-green* (Bauer 1983, 30-31) (Booij 2005, 80).

3. Objectives and Methodology

The purpose of this study is to shed light on the compound nouns used in the language of photography. More specifically, the aim is to identify the compound nouns that exist in this particular field and classify them according to the form of their constituents—verbs, nouns, adjectives or adverbs—following a corpus-based methodology. As pointed out by Douglas Biber et al., the best way of studying how language is used in naturally occurring texts and of investigating how users exploit the resources of the language is a corpus, rather than investigating what is theoretically possible (1998, 1). The data used in this study was gathered from the Internet. Among the variety of genres available, photography blogs were chosen as the source material because they provide authentic uses of words, they are up-to-date, free and easily accessible. As Greg Myers observes, "blogs make for appealing projects […]: the subject matter can be interesting, the styles are lively and personal, and the data couldn't be easier to collect (no taping and transcription)" (2010, 160). As a result, a growing number of researchers are turning to this type of source (e.g., Argüelles et al. 2009; Wong 2017a; Arndt and Woore 2018). Six blogs were selected for the study, namely *Beyond Megapixels* (BM; Joyce 2007), *Photofocus* (PF; Harrington 2008), *Roesch Photography* (RP; Roesch), *Scott Kelby Photoshop Insider* (SK; Kelby 2007), *Strobist* (ST; Hobby 2006) and *The Urban Exploration Photography Blog* (UX; Roesch). The corpus was designed taking into account three criteria: accessibility, contemporariness and representativeness. To make the corpus representative, Lynne Bowker and Jennifer Pearson's guidelines for designing a special purpose corpus were followed—size of the corpus, number of texts, subject, medium, text type, authors, language and publication date (2002, 45-54). The corpus used in the study contains about 900,000 words and is composed of 1,644 blog posts on photography, written between 2006 and 2017 by professional photographers who are native speakers of American English. After the texts were identified, their contents were manually downloaded into text files. Each blog and each post were tagged with their own reference, which is throughout this article to indicate the source of the items. The tags are formed with the initials of the blog and the date of publication—year, month, day—of the post on the Internet. For instance, the reference BM_090710 means that the item was extracted from a post published on the *Beyond Megapixels* blog on

July 10, 2009. Once the corpus was compiled, the photography terms consisting of compound nouns were manually extracted.

To identify photography terms, two factors were taken into account, frequency and meaning. As regards frequency, the corpus-comparison approach proposed by Cucu Sutarsyah et al. (1994) and used by Teresa Mihwa Chung (2003a, 2003b) establishes that technical terms occur more frequently in the discipline they belong to and are scarce in general language. Accordingly, in this study the *British National Corpus* (BNC) was used for comparison and *Sketch Engine* (Kilgarriff and Rychlý 2003) in order to find out the frequency of the terms. The *Technicality Analysis Model* (TAM) proposed by Althea Ying Ho Ha and Ken Hyland and based on frequency and meaning was also applied. Different tools were used to check the specialized meaning, mainly the *Oxford English Dictionary Online* (2019) and specialized dictionaries on photography, such as the *Illustrated Dictionary of Photography* (Lynch-Johnt and Perkins 2008) and the *Thames & Hudson Dictionary of Photography* (Herschdorfer 2015). Other dictionaries were also consulted occasionally. 1,144 photography terms were extracted and then the photography compound nouns were manually selected taking into account the properties discussed in section 2.1. This study is primarily taxonomic in nature and aims to identify the variety of compounds found in the lexis of photography.

4. Noun Compounds in Photography

496 noun compounds were identified (see appendix 1). Figure 1 illustrates the distribution of the patterns—noun + noun, adjective + noun, verb + noun, verb + particle, verb + verb, phrase compounds and other types. The analysis shows that the most common pattern of nominal compounding in the language of photography is noun + noun—263 items, 53%—with adjective + noun in second place—185 items, 37.3%. Other groups were less common: verb + noun—10 items, 2%—verb + particle—4 items, 0.8%—verb + verb—1 item, 0.2%—and phrase compounds—12 items, 2.4%. The final group comprises other items that could be considered noun compounds—21 items, 4.2%—such as rhyme-motivated compounds, terms composed of letters and nouns or those that include numbers.

FIGURE 1. Noun compounds in photography
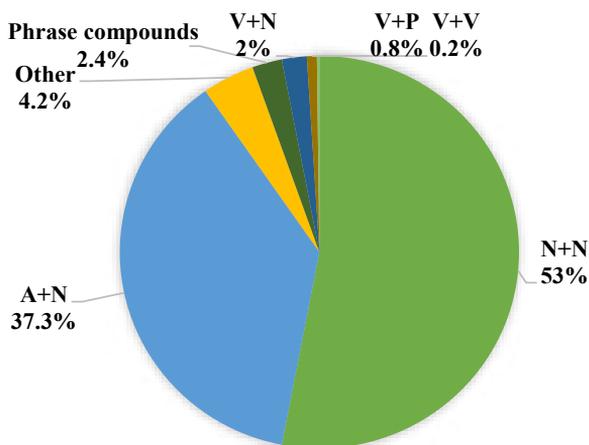
4.1. Classification

4.1.1. Noun + Noun

This is the largest group of compounds in English (Algeo 1999) and children start to produce them the earliest (Clark 1981). It is also the largest subgroup of noun compounds in the photography lexis—263 items, 53% (see figure 1). The vast majority of compounds in this group are endocentric—213 items out of 263, 81%—that is, they are hyponyms of their heads. Thus, *reflex camera* and *pocket camera* are types of cameras; *portrait lens* and *kit lens* are types of lenses; *star filter* and *cool filter* are types of filter, and so on. Some further examples are *scene mode*, *box camera*, *ring flash*, *remote release*, *spot meter*, *plate camera*, *sponge tool*, *cross light* and *zoom lens*. In some endocentric compounds the first element is a proper noun, including *Ken Burns effect*, *Eberhard effect*, *Sabattier effect*, *Orton effect*, *Foveon sensor*, *Bayer filter* and *Rembrandt lighting*, all of which describe entities named after their inventor. For instance, *Ken Burns effect* refers to the type of zooming used in video production from still imagery, a technique widely used by US documentarian Ken Burns; *Bayer filter* was named after Bryce Bayer; *Rembrandt lighting* describes the type of lighting used by Rembrandt in his portraits. As Bauer points out, this compounding process has been extremely productive in English in recent years (1983, 204). In the corpus used in this study, however, only 7 items of this type were found, which means that the majority of noun compounds in the noun + noun category are composed of common nouns—256 items.

The next subgroup if formed by exocentric compounds—49 items out of 263, 19%. Examples include *beauty dish*, *barn doors* and *flash gun*—all important lighting devices in photography—and *camera plate*, *ball head*, *lens barrel* and *camera body*—parts of a camera or one of its accessories. Exocentric compounds such as *photo opportunity*, *fisheye*, *image bank* and *image library* merit particular mention. *Photo opportunity* is not simply an opportunity to take a good picture but in fact has its own specific meaning: "a situation in which a famous person (such as a politician) can be photographed while doing something good or impressive that is meant to be seen in a favorable way by the public" (*Merriam-Webster Dictionary* 2020b). *Fisheye* is a type of lens that simulates the vision of a fish and due to its short focal length achieves a wide angle of view—between 100 and 180 degrees. *Image bank* and *image library* refer to collections of images stored electronically. It should be noted that often exocentric compounds are metaphoric in nature—thus, *image bank* and *image library* present the idea of gathering images together, a feature of both libraries and banks. Similarly, *beauty dish*, a large circular dish-shaped light diffuser, apparently owes its name to its similarity with a dish or a bowl.

The final type of noun compounds in this taxonomy photography are dvandva compounds, which are not very productive according to Bauer (1983, 203). One example was found in the corpus used in this study of photography lexis—*shutter curtain*, a device inside a camera that regulates the amount of light reaching the sensor.

4.1.2. Verb + Noun

The next group of noun compounds consists of terms combining a verb and a noun. This is a rather small group, as can be seen in figure 1—10 items, 2% of the total. There are two patterns distinguishable based on functional criteria. The first is where the noun is the direct object of the verb, such as *catchlight* and *touch screen*—the former makes reference to the reflection of the light source in the eye of the subject as if the light is being caught, while the latter refers to the screen that has to be touched in order to use the device. The second pattern is where the noun is the subject of the verb. Thus, *burn tool*, *dodge tool*, *smudge tool* and *zoom tool* are tools that, respectively, burn, dodge, smudge or zoom the image; a *protect filter* stops the lens being scratched; *zoom ring* refers to the ring on the lens that zooms; and *fill light* and *fill flash* make reference to the light and the flash that fill the photograph giving more light and detail to dark or shadowed areas, thereby reducing contrast.

4.1.3 Verb + Verb

Bauer mentions that this pattern is extremely rare (1983, 205). In line with this, in the photography corpus 1 item—*tilt-shift*—was identified:

(1) […] in the case of architectural photography […] <u>a tilt-shift</u> is useful (PF_170211)

This may refer to a type of lens, a type of photography or a technique in which a photograph of a real size object or place gives the optical illusion of being a photograph of a miniature scale model.

4.1.4. Adjective + Noun

Noun compounds containing adjectives are the second most frequent group in the photography corpus used in this study—185 items, 37.3% of the total (see figure 1). The range of adjectives that occur in this type of construction is not especially varied, although several patterns can be identified. First, the main subgroup—91 items—includes pure adjectives, as in *low light*, *wide angle*, *red eye*, *full frame*, *high-key*, *hot shoe*, *slow motion*, *white balance*, *highlights*. Secondly, 56 items contain denominal adjectives—*environmental portrait*, *architectural photography*, *digital camera*—and 34 deverbal adjectives formed with a gerund—*advancing color*, *glowing filter*, *leading lines*, *healing brush*—a participle—*fixed lens*, *colored filter*, *detached flash*, *graduated filter*—and other suffixes—*disposable camera*, *subtractive color*, *reflective umbrella*. Finally, combinations of deadverbial adjectives—3 items—and deadjectival adjectives—1 item—with nouns were located as well—*in-camera meter*, *on-camera flash*, *off-camera lighting* and *telephoto lens*, respectively.

4.1.5. Verb + Particle

The examples included in this subgroup are nominalizations of phrasal verbs and whether they are compounds at all could be questioned. However, the corpus used in this study yielded 4 instances of this type—0.8% of the total—which makes it worth mentioning:

(2) The diagram shows the <u>setup</u> of the lights (PF_150509)

(3) How to make a <u>cut-out</u> in Photoshop (RP_121005)

(4) It takes almost three seconds from <u>startup</u> to first exposure (UX_151126)

(5) It was for a live "<u>shootout</u>" in front of a crowd (ST_060300)

4.1.6. Phrase Compounds

These are constructions where an entire phrase is involved in the formation of a new word. Bauer mentions that the extent to which these formations should be considered compounds is debatable, but he still distinguishes different types within this group (1983, 206-7). In the photography corpus used in this study, endocentric, exocentric and dvandva phrase compounds of this type can be found. Among the endocentric phrase compounds, the following have initial head elements: *rule of thirds*, *depth of field*,

depth of focus, *field of view* or *point of focus*. Less common and less productive is the type where the head is the final element:

(6) […] my fantastic 50mm lens with the great depth of field is my new <u>go-to-lens</u> (BM_090413)

(7) You can do wonders with even a simple <u>click and go camera</u> (BM_100105)

Dvandva phrase compounds, as Bauer explains, differ from true dvandva compounds in that they include the word *and* and seem more like syntactic phrases (1983, 207). An example in photography is *pan and tilt*, which refers to "a tripod attachment that provides independent movement of the camera in both horizontal and vertical planes, giving the photographer greater flexibility" (Brain 2012):

(8) While you can lock or unlock the <u>pan and tilt</u>, the fluid head also features "drag" which controls how much friction there is when panning or tilting (PF_160720)

Only two exocentric phrase compounds were located, *splash of color* and *dragging the shutter* (also called *shutter drag*). Both refer to photographic techniques—the former is used to isolate a single color in an image and desaturate the rest of the colors, while the latter consists in using a longer shutter speed to capture the motion of moving objects.

4.1.7. Other

This group includes other cases of noun compounds—21 items; 4.2% of the total (see figure 1). There are instances of rhyme-motivated compounds (Bauer 1983, 212) such as *nifty-fifty* and *fantastic plastic*—2 items out of 21; 9%—, both of which make reference to the 50mm F/1.8 lens, a relatively good quality lens mainly made of plastic and sold at an affordable price. *Close-up*, a noun compound made up of an adjective + particle—1 item, 5%—, is also included in this group. Apart from being the head of a noun phrase, it can also modify a noun—*close-up photography*, *close-up shot*—or as verb—*to shoot close-up*.

Compounds formed through other word-formation mechanisms are also included here—6 items; 29%—, such as abbreviation—*LCD screen, c-stand, x-processing*—acronymy—*lomo camera* < Russ. *Leningradskoye Optiko-Mekhanicheskoye Obyedinenie* "Leningrad Optical Mechanical Association" + camera—blending—*bitmap < binary digit + map*—acronymy and borrowing (*AI Servo < Artificial Intelligence* + Lat. *servo*).

As has already been mentioned, compounds are usually defined as combinations of lexemes. The cases that follow, however, present combinations of letters or numbers with lexemes. Thus, it is not clear to what extent these terms should be considered compounds. Following Soneira Beloso (2015, 132), combinations of letters and

nouns are included in this study and, given their interest in the field of photography, combinations of numbers and nouns are also taken into account.

There are several terms composed of letters and nouns—10 items, 48%—, such as *L-Plate*, *S-Curve*, *T-Marker*, *A-Clamp* on the one hand, and *D-lighting* and *D-movie* on the other. In the first four examples, the letters make reference to shape—for instance, *L-Plate* is an accessory shaped like an L fastened to the camera body and used to shift between a horizontal and a vertical orientation. In the last two examples, the origin is not clear.

Other special cases are those formed using numbers—2 items, 9%—, as with *sunny 16 rule* and *moony 11 rule*. The latter was probably formed by analogy from the former given their relative frequency of use. In the corpus under study, *sunny 16 rule*— together with its variant *sunny f16 rule*—occurs 15 times, while *moony 11 rule* is used only 3 times. Both refer to formulas used to estimate the appropriate exposure in broad daylight, in the first case, and in moonlight, in the second.

4.2. Discussion of Results

This section briefly addresses the properties of noun compounds in photography lexis as observed in the corpus under study, focusing on meaning, orthography, recursivity, and morphological and syntactic properties.

Noun compounds in the photography corpus under study—417 items, 84.1%— follow the general tendency for endocentric compoundsto be more common than exocentric ones (Bauer 2009). This might be explained by the fact that a large proportion of noun compounds in photography arise from a series of keywords that are extremely common in this field, such as *light* (9), *camera* (10), *filter* (11) and *lens* (12). These and many other examples (see appendix 1) are endocentric compounds that are hyponyms of their heads.

(9) accent light, incident light, natural light, side light, specular light, sunlight, moonlight, available light, ambient light, background light, fill light, backlight, direct light, directional light, main light, key light, cross light, front light

(10) film camera, pinhole camera, plate camera, pocket camera, single-lens camera, twin-lens camera, interchangeable-lens camera, toy camera, video camera, view camera, disposable camera, compact camera, digital camera, hybrid camera, instant camera, reflex camera, mirrorless camera, still camera, point-and-shoot camera

(11) colored filter, diffusion filter, Dual Image filter, polarizing filter, sepia filter, soft focus filter, soft-step filter, Split Field filter, star filter, cool filter, warm filter, threaded filter, Bayer filter, neutral density filter, gradient filter

(12) zoom lens, telephoto lens, kit lens, prime lens, wide-angle lens, long lens, pancake lens

Even though the meaning of the endocentric compounds found in the corpus can be deduced in some cases from the meanings of the elements separately, in the majority of cases the meaning may be (partly) opaque to lay people. For example, most people may be familiar with the terms *reflex camera* or *screenshot* because of their popular use, and it is also possible to guess that *portrait lens* is a lens used for taking portraits, but the fact that a *reflex camera* is so called because it is equipped with a pentamirror or pentaprism that flips the image that passes through the lens so that it can be viewed the right way up on the screen or in the viewfinder is perhaps less generally known.

With regard to orthography, the majority of examples found in the corpus can be grouped according to whether they are written together, hyphenated or written separately. Several examples belong to the first group—*background*, *catchlight*, *viewfinder*—and to the second—*tilt-shift*, *low-key*, *D-lighting*. Hyphenation is particularly popular in combinations of letters + nouns, as in *c-stand*, *L-Plate*, *S-curve*—8 items out of 11. The vast majority of noun compounds in the photography corpus under study, however, are written separately—*color saturation*, *landscape photography*, *negative space*. On the other hand, the orthography of photography noun compounds can vary depending on the preferences of the authors, as can be seen in (13) and (14):

(13) (a) Read a book on <u>close-up</u> photography (PF_160824)
    (b) Zoom in tight and step up close, and it does some pretty good <u>closeup</u> work (PF_150617)
    (c) Then zoom in and take <u>close ups</u> of some fun elements (BM_081224)

(14) (a) [...] knowledge of shooting <u>time-lapse</u> is the same in shooting star trails (PF_150613)
    (b) How to capture <u>timelapses</u> using your digital SLR (PF_150405)
    (c) The HERO 4 will record a <u>time lapse</u> (PF_150206)

The analysis of the selected corpus shows that recursivity—the property of compounds to combine and form longer compounds—is widely used in the laguage of photography. Figure 2 shows a seven-member compound from the corpus which can be divided into binary structures that combine together to form larger compounds. The first constituent, *reflex camera*, is made up of *reflex* and *camera*. The next constituent, *single-lens reflex camera*—there are two types of cameras, single-lens and twin-lens cameras, according to the number of lenses that can be attached—is made up of *single-lens* and *reflex camera*. The third constituent, *digital single lens reflex camera*, is made up of *digital* and *single lens reflex camera camera*, and so on.

FIGURE 2. Example of recursivity in the photography lexis
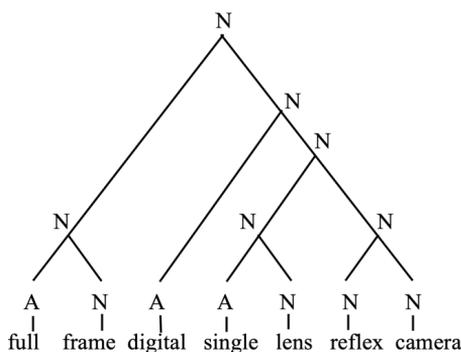
Full frame digital single-lens reflex camera can also be analyzed using bracketing (15a). Other examples of recursivity found in the corpus are also listed in (15), including two instances with compound phrases—(15d) and (15e).

(15) (a) (full frame (digital (single lens (reflex camera))))
      (b) (mirrorless (compact (interchangeable-lens camera)))
      (c) (medium format (color (transparency film)))
      (d) (pocket (digital (point-and-shoot camera)))
      (e) (black-and-white (film photography))

Morphologically speaking, compounds function as one lexical unit, with the head of the compound undergoing inflection, as can be seen in (16) and (17). The latter is particularly interesting due to the regular pluralization of the irregular head, a particular feature of exocentric compounds according to O'Grady et al. (1997, 136).

(16) You will need long <u>exposure times</u> to record the brilliant fireworks (PF_150407)

(17) <u>Still lifes</u> are generally shot with plain backgrounds (BM_090515)

As is to be expected, the syntactic criteria that have been mentioned for distinguishing compounds from phrases—inseparability and the inability to modify the first element of the compound—can also be applied to compounds found in the corpus of photography language under study. Thus, no other element can be inserted between the two constituents of *reflex camera* or *purple fringing—*reflex nice camera* or *purple ugly fringing* are not possible. Compounds that begin with an adjective cannot be preceded by an intensifier—*very softbox*, *very white balance*, *very high-key* are not possible either.

5. CONCLUSIONS

The present study intended to shed light on the noun compounds used in the language of photography, a field that had not previously been researched. The research questions posed at the start of this article have been answered. Firstly, it has been shown that the lexis of photography does make ample use of nominal compounding, with 496 items—43,3%—being identified out of 1,144 photography terms found in the selected corpus of about 900,000 words. Secondly, a variety of noun compounds in this particular corpus has been identified, and they have been classified and explained in detail. Specifically, the combinations noun + noun—263 items, 53%—adjective + noun—185 items, 37.3%—verb + noun—10 items, 2%—verb + verb—1 items, 0.2%—verb + particle—4 items, 0.8%—phrase compounds—12 items, 2.4%—and others—21 items, 4.2%—have been identified.

On this basis, it might be postulated that the most common pattern used to create compound nouns in photography is the noun + noun combination, followed by adjective + noun, while the least common patterns are those including verbs—verb + noun, verb + verb and verb + particle—and phrase compounds. Other patterns—compound nouns that include numbers, compounds made up of nouns and letters or rhyme-motivated compound nouns—are also found in the corpus. Even though in some cases their status as compounds is questionable, they have been included in the study for the reasons mentioned above.

The results are based on a limited sample that may not fully capture the variety of nominal compounding in the language of photography. This could be remedied by conducting analyses of larger corpora and by considering other genres apart from blogs, such as photography magazines, forums or manuals. Researchers are encouraged to continue studying the lexis of photography, which still has much to offer.[1]

WORKS CITED

ADAMS, Valerie. 1973. *An Introduction to Modern English Word Formation*. London: Longman.

ALEMÁN TORRES, Francisca. 1997. "A Classroom-Centred Approach to the Translation into Spanish of Common Noun Compounds Phrase Patterns in English Technical Texts." *Revista de Lenguas para Fines Específicos* 4: 13-24.

ALGEO, John. 1999. *Fifty Years among the New Words: A Dictionary of Neologisms*, *1941-1991*. Cambridge: Cambridge UP.

—. 2010. *The Origins and Development of the English Language*. 6th ed. Boston, MA: Wadsworth Engage Learning.

ARGÜELLES, Irina, Silvia Molina and Xu Xi. 2009. "La actitud del hablante a través de adverbios y expresiones adverbiales en los blogs de telecomunicación." *RAEL: Revista Electrónica de Lingüística Aplicada* 8 (1): 174-98.

ARNDT, Henriette and Robert Woore. 2018. "Vocabulary Learning from Watching YouTube Videos and Reading Blog Posts." *Language Learning & Technology* 22 (3): 124-42.

ARONOFF, Mark. 1976. *Word Formation in Generative Grammar*. Cambridge, MA: MIT Press.

ASSFALG, Jürgen, Alberto Del Bimbo and Pietro Pala. 1999. "The Photographer Metaphor for Content Based Image Retrieval." In Teuner et al. 1999, 680-85.

ATLAM, El-Sayed, Kazuhiro Morita, Masao Fuketa and Jun-Ichi Aoe. 2002. "A New Method for Selecting English Field Association Terms of Compound Words and its Knowledge Representation". *Information Processing & Management* 38 (6), 807-21.

BAUER, Laurie. 1978. *The Grammar of Nominal Compounding with Special Reference to Danish, English and French*. Odense: Odense UP.

—. 1983. *English Word-Formation*. Cambridge: Cambridge UP.

—. 1998. "When Is a Sequence of Two Nouns a Compound in English?" *English Language & Linguistics* 2 (1): 65-86.

—. 2009. "English Exocentric Compounds." [Accessed online on March 22, 2020].

—. 2017. *Compounds and Compounding*. Cambridge: Cambridge UP.

BENCZES, Réka. 2006. *Creative Compounding in English: The Semantics of Metaphorical and Metonymical Noun-Noun Combinations*. Amsterdam and Philadelphia: John Benjamins.

BIBER, Douglas, Susan Conrad and Randi Reppen. 1998. *Corpus Linguistics: Investigating Language Structure and Use*. Cambridge: Cambridge UP.

BLOOMFIELD, Leonard. 1933. *Language and Lingustics.* London and Aylesbury: Compton.

BOOIJ, Geert. 2005. *The Grammar of Words: An Introduction to Linguistic Morphology*. Oxford: Oxford UP.

BOURDIEU, Pierre and Shaun Whiteside. 1996. *Photography: A Middle-Brow Art*. Stanford, CA: Stanford UP.

BOWKER, Lynne and Jennifer Pearson. 2002. *Working with Specialized Language: A Practical Guide to Using Corpora*. London and New York: Routledge.

BRAIN, Ben. 2012. *Complete Dictionary of Photography*. Bath: Future.

BRITISH NATIONAL CORPUS, version 3 (BNC XML Edition). 2007. U. of Oxford. [Accessed online on August 30, 2019].

CHUNG, Teresa Mihwa. 2003a. "A Corpus Comparison Approach for Terminology Extraction." *Terminology* 9 (2): 221-46.

—. 2003b. "Identifying Technical Terms." PhD diss., Victoria University of Wellington.

CLARK, Eve 1981. "Lexical Innovations: How Young Children Learn to Create New Words." In Deutsch 1999, 299-328.

DEUTSCH, Werner, ed. 1999. *The Child's Construction of Language*. London: Academic.

DuCHEMIN, David. 2011. *Photographically Speaking: A Deeper Look at Creating Stronger Images*. Berkeley, CA: New Riders.

EVENING, Martin. 2015. *The Adobe Photoshop Lightroom CC/Lightroom 6 Book: The Complete Guide for Photographers*. San Francisco, CA: Adobe.

FRIES, Marie-Hélène. 2017. "Teaching Compound Nouns in ESP: Insights from Cognitive Semantics." In Sarré and Whyte 2017, 93-109.

HA, Althea Ying Ho and Ken Hyland. 2017. "What is Technicality? A Technicality Analysis Model for EAP Vocabulary." *Journal of English for Academic Purposes* 28: 35-49.

HATCHER, Anna Granville. 1960. "An Introduction to the Analysis of English Noun Compounds." *Word* 16 (3): 356-73.

HERSCHDORFER, Nathalie, ed. 2015. *The Thames and Hudson Dictionary of Photography*. London: Thames and Hudson.

JACKSON, Howard and Etienne Amvela. 2007. *Words, Meaning and Vocabulary: An Introduction to Modern English Lexicology*. London: Bloomsbury.

KELBY, Scott. 2018. *Photoshop for Lightroom Users*. San Francisco, CA: New Riders.

KILGARRIFF, Adam and Pavel Rychlý. 2003. *Sketch Engine*. [Accessed online on August 30, 2019].

KNOWLES, Elizabeth and Julia Elliott. 1997. *The Oxford Dictionary of New Words*. Oxford: Oxford UP.

LANDAU, Paul. 2002. "Empires of the Visual: Photography and Colonial Administration in Africa." In Landau and Kaspin 2002, 141-71.

LANDAU, Paul and Deborah Kaspin, eds. 2002. *Images and Empires: Visuality in Colonial and Postcolonial Africa*. Los Angeles: U of California P.

LANG, Mervyn. 2013. *Spanish Word Formation.* London and New York: Routledge.

LEES, Robert. 1960. "A Multiply Ambiguous Adjectival Construction in English." *Language* 36 (2): 207-21.

LEVI, Judith. 1978. *The Syntax and Semantics of Complex Nominals*. New York: Academic.

LIBBEN, Gary and Gonia Jarema, eds. 2006. *The Representation and Processing of Compound Words*. Oxford: Oxford UP.

LIEBER, Rochelle. 2005. "English Word-Formation Processes." In Štekauer and Lieber 2005, 375-427.

LIEBER, Rochelle and Pavol Štekauer. 2009a. "Introduction: Status and Definition of Compounding." In Lieber and Štekauer 2009, 3-18.

—, eds. 2009b. *The Oxford Handbook of Compounding*. Oxford: Oxford UP.

LYNCH-JOHNT, Barbara and Michelle Perkins. 2008. *Illustrated Dictionary of Photography: The Professional's Guide to Terms and Techniques for Film and Digital Imaging*. Buffalo, NY: Amherst Media.

MARCHAND, Hans. 1969. *The Categories and Types of Present-Day English Word-Formation: A Synchronic-Diachronic Approach*. München: Beck.

MERRIAM-WEBSTER DICTIONARY ONLINE. 2020a. s. v. "Daisy-wheel." [Accessed online on July 22, 2020].

—. 2020b. s. v. "Photo opportunity." [Accessed online on July 22, 2020].

Myers, Greg. 2010. *The Discourse of Blogs and Wikis*. London: Bloomsbury.

Mykytka, Iryna. 2016. "Metaphors in Photography Language." *Ibérica: Revista de la Asociación Europea de Lenguas para Fines Específicos (AELFE)* 32: 59-86.

—. 2017. "The Influence of English on the Spanish Register of Photography: An Empirical Study." *ESP Today* 5 (1): 68-90.

Newhall, Beaumont. 2002. *Historia de la fotografía*. Translated by Homero Alsina Thevenet. Barcelona: Gustavo Gili.

Nicoladis, Elena. 2006. "Preschool Children's Acquisition of Compounds." In Libben and Jarema 2006, 96-124.

O'Grady, William, Michael Dobrovolsky and Francis Katamba. 1997. *Contemporary Linguistics: An Introduction*. Boston, MA: Bedford/St. Martin's.

Oxford English Dictionary Online. 2019. [Accessed online on July 10, 2019].

Parkinson, Jean. 2015. "Noun-Noun Collocations in Learner Writing." *Journal of English for Academic Purposes* 20: 103-13.

Plag, Ingo. (2003) 2018. *Word-Formation in English*. 2nd ed. Cambridge: Cambridge UP.

Rosenblum, Naomi. 1997. *A World History of Photography*. New York: Abbeville.

Ryder, Mary Ellen. 1994. *Ordered Chaos: The Interpretation of English Noun-Noun Compounds*. Berkeley: U of California P.

Sarré, Cédric and Shona Whyte, eds. 2017. *New Developments in ESP Teaching and Learning Research*. Voillans: Research Publishing.

Scharf, Aaron. 1983. *Art and Photography*. New York: Penguin.

Soneira Beloso, Begoña. 2015. *A Lexical Description of English for Architecture: A Corpus-based Approach*. Bern: Peter Lang.

Sontag, Susan. 1977. *On Photography*. Basingstoke: Palgrave Macmillan.

Štekauer, Pavol and Rochelle Lieber, eds. 2005. *Handbook of Word-Formation*. Dordrecht: Springer.

Sutarsyah, Cucu, Paul Nation and Graeme Kennedy. 1994. "How Useful is EAP Vocabulary for ESP? A Corpus Based Case Study." *RELC Journal* 25 (2): 34-50.

Teuner, Andreas et al., eds. 1999. *Proceedings of 10th International Conference on Image Analysis and Processing-Surveillance Sensor Systems Using CMOS Imagers*. Washington, D.C.: IEEE Computer Society.

Wong, May. 2017a. "Linguistic Variation in Digital Discourse: The Case of Blogs." In Wong 2017, 131-54.

—. 2017b. *Hong Kong English*. London: Palgrave Macmillan.

Sources Used in This Study

Harrington, Richard, ed. *Photofocus* (blog). [Accessed online on May 31, 2019].

Hobby, David, ed. *Strobist* (blog). [Accessed online on May 31, 2019].

Joyce, Tiffany, ed. *Beyond Megapixels* (blog). [Accessed online on May 31, 2019; no longer available].

Kelby, Scott. *Scott Kelby Photoshop Insider* (blog). [Accessed online on May 31, 2019].

Roesch, Ritchie. *Roesch Photography* (blog). [Accessed online on May 31, 2019; no longer available].

—. *The Urban Exploration Photography Blog* (blog). [Accessed online on May 31, 2019; no longer available].

Appendix. Noun Compounds in Photography

A. Noun + Noun

accent light	lens mount
adjustment brush	lens shutter
amateur photographer	lensbaby
aperture priority	lenspen
aspect ratio	light box
aviation photography	light meter
background light	light modifier
ball head	light source
barn doors	light stand
barrel distortion	light tent
battery grip	light trail
Bayer filter	lightpainting
beauty dish	Lightroom
bit depth	loop lighting
bitmap image	memory card
bitmap mode	mirror lockup
body cap	model release
bottle cap tripod	moonlight
box camera	motion blur
brick wall technique	movie mode
bridge camera	nature photography
brush tool	{neutral density} filter
bulb mode	night mode

burst mode

burst rate

butterfly lighting

cable release

camera angle

camera body

camera case

camera film

camera lens

camera plate

camera profile

camera roll

camera shake

card reader

center spot filter

child photography

clone stamp

cloudscape photography

color balance

color cast

color contrast

color correction

color fatigue

color mapping

color photograph

color photography

color saturation

color space

color temperature

color [transparency film]

color wheel

[compact flash] card

concert photographer

night photography

noise reduction

Orton effect

[paint bucket] tool

pancake lens

pano stitching

parallax error

photo album

photo book

photo booth

photo gallery

photo opportunity

photo release

photo session

photoshoot

photo stream

photo studio

photography industry

photojournalism

photojournalist

photomontage

Photoshop

photosite

photowalk

pincushion distortion

pinhole camera

pistol grip head

pixel density

plate camera

pocket camera

portrait lens

portrait mode

portrait orientation

concert photography

control ring

[crime scene] photography

crop factor

cross light

daylight

diffusion filter

diffusion panel

[dual image] filter

Eberhard effect

edge fringe

eraser tool

event photography

exposure bracketing

exposure compensation

exposure lock

exposure meter

exposure mode

exposure time

extension tube

eyecup

eyedropper tool

eyepiece

face detection

face recognition

fashion lighting

fashion photographer

fashion photography

file format

film camera

film photography

filter holder

[fine art] photography

portrait photographer

portrait photography

power zoom

print size

product photography

program mode

[rainbow spot] filter

rangefinder

red-eye removal

Rembrandt lighting

ring flash

Sabattier effect

sandbag

scene mode

school photography

screenshot

selection tool

shutter button

shutter curtain

shutter priority

shutter release

shutter setting

shutter speed

shutterbug

side light

side lighting

[single-lens] camera

slide film

slideshow

snapshot

snow mode

soft focus filter

[soft focus] [lens diffuser]

fisheye

flash card

flash cube

flash diffuser

flash duration

[flash exposure] control

[flash exposure] lock

flash gun

flash head

flash meter

flower photography

focus lock

focus ring

focus stacking

food photographer

food photography

Foveon sensor

[full length] shot

gimbal head

gradient filter

gridspot

halftone

honeycomb grid

[hot shoe] adapter

image area

image bank

image circle

image format

image library

image processor

image size

image stabilization

inverse square law

sound trigger

speedlight

speedlite

[split field] filter

sponge tool

sports photography

spot meter

spot metering

[spot metering] mode

star filter

[still life] photography

street photography

sunlight

sync speed

thumbnail

time exposure

time-lapse

[time-lapse] photography

tone-mapping

toolbar

toolbox

toy camera

travel photography

tripod head

tripod mount

[twin-lens] camera

vantage point

vibration reduction

video camera

view camera

viewfinder

viewpoint

vintage camera

Ken Burns effect   war photographer

kit lens   watermark

landscape mode   wavelength

landscape orientation   wildlife photography

landscape photography   workflow

lens aberration   zebra-mode

lens barrel   zone system

lens cap   zoom blur

lens flare   zoom lens

lens hood

B. Verb + Noun

burn tool   protect filter

catchlight   smudge tool

dodge tool   touch screen

fill flash   zoom ring

fill light   zoom tool

C. Verb + Verb

tilt-shift

D. Adjective + Noun

active D-lighting   key light

advancing color   latent image

aerial photography   leading lines

ambient light   live view

analog photography   long lens

anti-aliasing filter   low light

architectural photography   low light photography

artificial light   low-key

aspherical lens   magic hour

available light   main light

background   manual focus

backlight

backlighting

biconvex lens

bright spot

broad light

built-in flash

built-in meter

candid photography

celestial photography

chromatic aberration

close-up filter

close-up lens

close-up photography

cold shoe

collapsible reflector

colored filter

combined zoom

commercial photography

compact camera

content-aware fill

continuous autofocus

converging lines

cool filter

cropped sensor

cut-out photography

darkroom

decisive moment

detached flash

digital camera

digital noise

digital photograph

digital photography

digital zoom

manual mode

medium format

mid-ground

midpoint

midtone

minimalist photography

minimum focus distance

mirrorless camera

modeling light

multiple exposure

multiple flash

natural light

negative fill

negative film

negative space

off-camera lighting

on-camera flash

optical density

optical slave

optical zoom

panoramic image

panoramic photography

paramount lighting

pin-point light

plastic camera

plastic lens

polarizing filter

pop-up flash

prime lens

purple fringing

radial tool

raw format

rechargeable battery

direct light

direct lighting

directional light

disposable camera

double exposure

Dutch tilt

dynamic range

effective focal length

electronic flash

environmental portrait

external flash

facial recognition

fast lens

fill-in flash

fine grain

fixed lens

fluid head

focal distance

focal length

focal plane

focal point

focal range

freelensing

front light

front lighting

full frame

Gaussian blur

glowing filter

golden mean

graduated filter

grey balance

greyscale

hard light

red eye

reflected light

reflective umbrella

reflex camera

remote shooting

remote shutter release

reversal film

reversing ring

sepia filter

silent mode

slow motion

soft focus

soft light

soft-proofing

soft-step filter

softbox

special effect

specular highlight

specular light

split lighting

step-up ring

still camera

still life

still photographer

still photography

subtractive color

telephoto lens

threaded filter

tonal range

true colors

twin flash

underwater photography

unsharp mask

healing brush

high contrast

high dynamic range

high-key

highlights

hot shoe

hybrid camera

hyperfocal distance

in-camera meter

incident light

indexed color

indirect lighting

instant camera

instant film

intellectual property

[interchangeable-lens] camera

urban photographer

vanishing point

vertical orientation

viewing distance

viewing filter

warm color

warm filter

wedding photography

white balance

white light

wide angle

wide aperture

wide-angle lens

working aperture

working distance

E. Verb + Particle

cut-out

setup

shootout

startup

F. Compound phrases

click and go camera

black-and-white photography

depth of field

depth of focus

dragging the shutter

field of view

go-to-lens

pan and tilt

point of focus

point-and-shoot camera

rule of thirds

splash of color

G. Other

AI Servo

B light

bitmap

L-Plate

LCD screen

lomo camera

c-stand	moony 11 rule
D-lighting	nifty fifty
D-movie	S-curve
f number	sunny 16 rule
f-stop	T Marker
fantastic plastic	UV filter
A-Clamp	x-processing
close-up	

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