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Preprint

During the age of Enlightenment, various compendia of knowledge were compiled, and this had an impact also on the description of languages and words. The vocabulary of color formed part of this revolution in three ways: as part of the necessary lexicon to describe the arts and sciences, as an autonomous terminological corpus, and as units of language with grammatical substance.

Dictionaries were among the most sought-after and disputed cultural products on the editorial market during the eighteenth century (Rétat 2013: 386–9). They circulated throughout Europe first in the original languages and soon after in translation. Without Latin as an intermediary, the comparison between modern languages put unprecedented pressure on the available lexicon of each language as soon as a description of a collection of transnational and shared knowledge was required.

Although the dictionaries presented an ever-growing list of lexical items, the criteria for their selection were very different from those pertaining to modern lexicography. It was not a question of trying to collect all the lexical units; rather, it was a question of trying to make the dictionaries include the largest possible number of lexical domains and cover a wide range of scientific and culturally significant topics. Accordingly, the lists of color terms published in this period were not only selective but also inspired by selection criteria that might confuse their readers, since color terms could refer both to processes and objects.

Encyclopedic knowledge could be presented in a physical form. It could be a library, a museum, or a cabinet of curiosities. A universal bibliography was the primary aim of the treatises and technical manuals, which typically contained an extensive collection of authors writing about a specific topic.

Between the seventeenth and eighteenth centuries, two significant changes occurred. The first was a new type of opus that had the same aim of providing encyclopedic knowledge and that assumed the nature of a dictionary. These dictionaries, however, which covered either an entire subject field or related subfields, were not actual representations of the language, since they usually defined words out of context.

The second change took place during the eighteenth century, when the theme “progress of knowledge” became the rhetoric for scientific discourse. Accordingly, those compiling scientific works could bring to light new authors, and so reference to medieval theories might be kept to a minimum (Yeo 2001: 14; 2004: 351). Since there was no need to repeat traditional information, lexicographers could focus on contemporary languages and disregard vocabulary used exclusively by Latin authors. Furthermore, a field of knowledge could be presented as open-ended, assuming that current or future investigations on the relation between light and color could change the state of knowledge. Dictionaries, encyclopedias, and treatises were considered to be provisional descriptions, and the public came to expect expanded and up-to-date reprints. Educated readers had by then become a diversified audience that favored modern languages rather than Latin. However, this appreciation of vernacular languages precedes the interest in a comprehensive description of national languages.

Dictionaries focusing on the description of modern languages were aimed at students, and the question of whether or not to include terminology and jargon was debated. Some famous titles of this period, such as Corneille’s *Dictionnaire des arts et des sciences* (1694), incorrectly suggest that the works showed interest in the words themselves. As demonstrated below, color terms, especially those associated with professional and artistic activities, were not part of the core vocabulary of learners’ dictionaries.

The study of languages during the Enlightenment differs from modern approaches. Dictionaries intended for the learning and teaching of modern languages focused on difficult words related to Latin, Greek, or another modern language in one way or another. Accordingly, color terms worthy of mention fell into one of the following two categories: either they resulted from a recent borrowing or they had a literary function (color names from the Latin and Greek literary tradition).

In the second half of the century, lexicographers began to pay more attention to words in their own literary heritage, including those that were either difficult to understand or relatively unknown. Those words were generally loans from classical languages and used in the arts and sciences. Many such words that were associated with the description of color could not be understood as truly vernacular. Technical terms were not considered part of the fundamental lexicon of a language. For example, the adjective *vert*, which had a restricted use

in English, was a borrowing from French (Blount 1656), and for this reason it was omitted from a list of English words. Furthermore, there were no concerns about exhausting the description of common lexical items by providing a detailed definition or attempting to provide a comprehensive list of words.

By the time monolingual dictionaries appeared and were influenced by the spirit of encyclopedias, the inclusion of color terms had become problematic. The definitions should describe words, assign them a typology (*genus*), and indicate the way in which they distinguished themselves within this category (*differentia*). For example, it was easy to include a word related to a color term associated with an art, craft, or science, and, if possible, describe its particularity (function or origin). When a term was polysemic, compilers of encyclopedias showed more interest in the technical use of the word than in the broad meaning of how it was used in standard contexts.

A dictionary of the sciences in the age of Enlightenment did not study words; it described human knowledge using an indexation made from technical and discipline-related word senses. The linguistic analysis of the primary meanings of technical terms caused dictionaries to become further removed from their primary goal of describing the arts and sciences.

In the so-called encyclopedic dictionaries, color terms were used to name objects, and the definitions offered referred to the technical uses (generally names of pigments or tints) and not to the vernacular senses of color terms. From a linguistic point of view, it was difficult to describe the meanings of color terms, which could be either nouns or adjectives. As a consequence, definitions could be much more abundant in explanations of the metaphorical uses of colors than in words referring to a color, since lexicographers could explain them through paraphrases and synonyms.

Using dictionary definitions as a source of linguistic data is limited in its ability to capture language use. However, encyclopedic and specialized dictionaries can provide valuable information on how certain color words operate within a particular cultural context, as well as on regional, chronological, and contextual restrictions (Biggam 2012: 9–10). Understanding how the dictionary was compiled and for whom it was intended is also important.

COLOR WORDS AS “DIFFICULT” WORDS

Words describing colors, especially when they result from borrowing, had such a restricted use that they were classified as “difficult” words. In 1623, Henry Cockeram compiled a dictionary to help ladies, young scholars, and merchants—educated readers, although not proficient in Latin—to decipher the “more difficult authors already printed in our language” (Cockeram 1623: A1r). Some words were so uncommon that they had not yet been documented in English dictionaries. As a result, Cockeram distinguished between “the choisest

words [...] now in use” and “vulgar words, which whensoever any desirous of a more curious explanation by a more refined and elegant speech shall look into, he shall there receive the exact and ample word to express the same” (A4v). Examples of such words are probably *azure*, *geules*, or *vert* in the mid-seventeenth century, since they are still registered in the 1650 edition:

Hue – colour
Azure – a fine blew colour
Gangeau – divers colours in one together
Cumatical colour – blue colour
Argent – of silver colour
Geules – red vermilion colour
Vert – green colour
Lake – a fair red colour used by painters
Ore – gold or silver colour.

(Cockeram 1650: s.v.)

The need for an index of common words, which might help uninspired writers find rare and erudite words, provides further evidence that these words were scarcely known:

Red – *rubrick*
Green – *verdant*
Yellow – *cytrine, fulgent*.

(Cockeram 1650: s.v.)

Printed word lists or the occurrence of a term in texts are, of course, not sufficient to prove the existence of a color term in common usage. It is important to bear in mind this caveat when dealing with texts from the late seventeenth century. It is entirely possible that there was a sudden abundance of new color terms owing to the increased use of the morphological processes for their formation, which had been available for some time. It is often impossible to determine exactly when a word was coined, but by observing frequent word formation processes in a specific period, one may deduce that a word can be formed. If so, educated speakers would have the resources to interpret its meaning by analogy with other known words.

Cockeram’s lists of Latin words, which include equivalents in a modern language, act both as an incentive and as a support to lexical creativity. In English, the morphological process that allows the formation of *niveus* from the Latin *niveus* (white as snow) is the same that forms *lacteus* from *lacteus* (of the color of milk). Although some dictionaries register the anglicization *nivious* as far back as 1623 (Cockeram 1623: s.v. *white*), *lacteous* is only attested in 1646, according to the *Oxford English Dictionary* (OED). The Latin suffix *-eous*

denotes material composition and forms adjectives meaning “made of,” “derived from,” “resembling.” Some examples of English neologisms documented during the seventeenth century are *aqueous* (resembling water) (1643), *cupreous* (made of copper) (1666), *ferreous* (made of iron) (1646), and *vitreous* (resembling glass) (1646) (OED). By extension, the same suffix is used to form color-related adjectives, insofar as they describe the color of a material.

COLOR WORDS AS A LEXICAL DOMAIN

Rider's Dictionary (1659) is a good example of a practical *vademecum* in that it served both as a tool to learn Latin and a way to translate the core vocabulary of a modern language. Lexicographer John Rider (1562–1632) considered color terms an independent lexical domain and recognized them as part of the essential lexicon of everyday life. According to him, the names that describe colors should be grouped in lists in the same way that birds, fish, herbs, rocks, trees, and weights and measures are grouped.

Since these learners' dictionaries did not have definitions, lexicographers only provided an equivalent when compiling color terms. In this particular case, the Latin term served as the intermediary between languages. In *Rider's Dictionary*, the list of color terms is relatively short. Although there are around 140 entries, about a third are not strictly speaking color terms; however, there is an abundance of expressions used about color and its variations. As demonstrated below, it would therefore be more appropriate to describe his list as a list of words and phrases that form a color lexicon.

That is of changeable colour. *Versicolor*.

A good, lively, durable and lasting colour. *Color pertinax*.

Changeable colour. *Varians color*.

Flesh-colour of white and red. *Helvus, helveius, gilvus*.

A colour like a flamme of fire. *Flammeus color*.

(Rider 1659: 377–8)

There is clearly an implicit grammatical and semantic reflection on the polysemy of color terms in English, although it needs to be inferred from Latin. For example, the term *gray* has three similar adjectives, which are based on three different Latin roots with different uses and interpretations: “Grey. Glaucus, canus, caesius” (Rider 1659: 378), that is, “gray color” (*glaucus*), “gray hair” (*canus*), and “bluish gray” (color of the eyes) (*caesius*). As is evident from this quote, it is not explicitly stated that these three words converge into one word in English with different contextual uses.

Rider's “lexicon of color” is not an exhaustive or a coherent list, since many of the expressions are not particularly relevant from the perspective of an English speaker. Accordingly, expressions that are predictable formations in

English tend to correspond to core Latin vocabulary. For example, the English expression “being gray” is translated into the Latin verbal form *canens*, which is derived from the adjective *canus* (having gray hair). Compared with the lists of birds and fish, the lists of colors and color-related vocabulary show unexpected syntactic and semantic behaviors. It is not uncommon to find different grammatical categories for expressions that refer to the same hue. Anominal expression in English can be equivalent to a Latin adjective, as demonstrated in the following example:

Iron colour. *Ferrugineus*.
Medly. *Color mixtus, vel mistus*.

(Rider 1659: 378)

Moreover, some Latin words do not have an equivalent. Accordingly, they are given only a description, which from a linguistic point of view is not sufficient to refer to a specific shade of color:

A certain medly colour, made of hony [*sic*], rain water, and sea water.
Thalassomeli.

(Rider 1659: 378)

The lists from the first half of the seventeenth century suggest a lexical insufficiency within the vernacular language, which appears to have fewer available words than Latin to describe colors. Thus, there may be an English color hyperonym, where Latin has a series of derived words, either toponyms or words designating pigments, as demonstrated in the following example:

A purple colour. *Conchyle*.
A kind of purple. *Meliboea*.
A whitish purple, a colour much like the flower of Mollows. *Molochinus*.
A kind of purple made in Phenicia. *Oxos*.
A purple in grain, or purple twice died. *Dibapha*.
Belonging to purple. *Tyrianthinus*.

(Rider 1659: 378)

In the translation of adjectives, the English word is presented as a sufficient decoder for all the traditional Latin terms, without any consideration of variations or reference to pigments or toponyms:

Purple, or of purple colour. *Purpureus, ostrinus, sarranus, thessalicus, tyrius, blatteus, amethystinus*.

(Rider 1659: 378)

The French Jesuit priest François Pomey (1619–73) compiled one of the most successful learners’ dictionaries, specifically designed for learning Latin vocabulary side by side with a modern language. He did not organize entries

alphabetically; instead he organized them in thematic groups, whereby he enabled users to find words via their meanings rather than via their orthographic form. This method was well received throughout Europe and served to multiply sources for the comparison of languages. Examples include the French–Latin edition (Pomey 1667), the English–Latin–French edition (Pomey 1679), as well as the Italian–Latin edition of 1681, and the Latin–French–Dutch edition of 1689, which was reprinted many times (Jones 1999: 333–5). The 1667 edition contains a list of fifty-three words related to color, though color was still not considered a lexical domain with well-defined semantic boundaries. In the conceptual hierarchy that relates words to the real world, colors were surprisingly considered a sub-domain of the lexicon of flowers. The relationship is probably due to the fact that color and smell are crucial attributes of flowers. Color is one of the features used to distinguish between the species of flowers. On the one hand, this principle limits the variety of colors integrated into that list, since little attention is paid to the names of colors produced by dyeing or for painting. On the other hand, compound color names are formed in a way that reinforces the comparisons with the colors of natural elements.

Couleur d’Amaranthe [amaranth color]. *Floris Amaranthi color.*

Couleur de Citron [lemon color]. *Citrus color.*

Couleur de Cerise [cherry color]. *Cerasi color.*

Couleur de feuille morte [dead leaf color]. *Color frondis emortuae.*

(Pomey 1667: 52–3)

The adjectival members of the red category comprise one of the most prominent semantic groups. It is formed by lexical combinations that crystallized and remained in use throughout subsequent centuries:

Rouge [red]. *Rubeus color.*

Rouge obscur [dark red]. Rouge Brun. *Rubrum lividum.*

Rouge éclatant [bright red]. *Coccineus color.*

Rouge vermillon [vermilion red]. *Minium, Purpurissum.*

Rouge de sang [blood red].

(Pomey 1667: 53)

Moreover, color descriptions appear occasionally in other word lists. In the section on terms for paint and painting, there are only adjectives referring to a typology of colors, not to the colors themselves:

Couleur simple [simple color]. *Color nativus, genuinus.*

Couleur gaye [cheerful color]. *Color floridus, laetus, suavis.*

Couleur vive [bright color]. *Color vividus.*

Couleur riche [rich color], *Color illustris splendidus.*

(Pomey 1667: 246)

In the section devoted to animals, color adjectives are used to distinguish species of horses:

Equus gilvus. Cheval bay, de couleur rouge-obscur [bay horse, red-dark color].

Equus badius. Bay-chatain [brown bay].

Equus ex badio fuscus. Bay-brun [brown-bay color].

Equus spaciceus inauratus. Bay-doré [golden-bay color].

(Pomey 1667: 24)

During the eighteenth century, the manner in which lexicographers perceived the semantics of these linguistic units changed. In the 1756 edition of Pomey's dictionary, an evolution in the presentation of the word list related to color is noticeable. These words now occupy a subsection, not in the sections on the sciences or the arts but, instead, forming part of the "inanimate beings" category, where one finds lists of stars, metals, trees, and plants. This change took place in all the dictionaries that followed the same method of parallel comparison of modern European languages and that were based on Pomey's model.

Surprisingly, the number of entries more than doubled (to around 120) for reasons that appear to have been linguistic. Colors were no longer subordinate to descriptions of plants or animals, and this had a very important consequence with regard to the categorization of color words: instead of being presented as adjectives, they are now presented as nouns. Nouns are essential for the construction of a terminology list, where it is presumed that they have more stable meanings. In the entry, there is thus a distinction between compounds that are used to name a color and words that can serve as nouns, that is, names of colors:

De citron, de cerise, de feuille morte, de rose, de rose sèche.

(Color of lemon, cherry, dead leaf, rose, dried rose.)

Rouge, rouge obscur, rouge éclatant, rouge de sang.

(Red, dark red, bright red, blood red.)

(Pomey 1756: 297; my translation)

This coherent method of describing words is essential, as it clearly explains the difference between fixed formations that are always nominal expressions, such as *verd de pré* (grass green) and the adjectival forms that can create color names, such as [*couleur de*] *rose* (rose color) or [*couleur d'*] *olive* (olive color). New entries are either calques from Latin, such as *verd de mer* (sea green) from Latin *glaucus color*, or [*couleur*] *de châtaigne* (chestnut color) from Latin *castaneus color* (Pomey 1756: 298).

Also remarkable is the inclusion of new translations of Latin nouns. These nouns had circulated in lists of Latin words in the sixteenth century and the beginning of the seventeenth century but without equivalents in French:

D'albâtre [alabaster color]. *Marmoreus*.

D'ivoire [ivory color]. *Eburneus*.

D'eau [water color]. *Aqueus*.

De verre [glass color]. *Vitreus*.

De lait [milk color]. *Lacteus*.

(Pomey 1756: 298)

This preference for compounds created from vernacular words shows how restricted the usage of erudite borrowings was, which is in accordance with their low occurrence in text corpora.

In Latin–vernacular dictionaries, Latin words tend to be translated in a number of ways, as is evident from the following seventeenth-century Portuguese equivalents of Latin adjectives:

Incaratus color. Cór encarnada [flesh-colored]. [...]

Punicus, a, um. Cór morada [purple], cór avivada [bright color], roxo claro [light purple], cór da purpura [purple]. Alii: vermelha [red], encarnada [red]. [...]

Rubeus, a, um. Cousa vermelha [red], ruiva [ginger], roxa [purple], encarnada [flesh-colored], loura [blond], de escarlata [scarlet], carmezim [carmine], purpura [purple]. [...]

Russatus, a, um. Cousa encarnada [flesh-colored], vermelha [red], clara, ou roxa [purple].

(Pereira 1697: 327, 554, 586, 588)

Lists of colors also appear as appendices to other areas of knowledge. In these cases, words are subordinate to the context of a specific terminology, since the information provided for color-related words cannot have a broad interpretation.

In 1677, the physician Walter Charleton (1619–1707) published a list of bird and animal names. In order to make a distinction between different species of birds, the author had to describe the colors of their feathers. A glossary of colors complements the catalog of birds, recording the colors to which he referred in his work. Despite the promising title *Appendicula de colorum differentiis & nominibus*, color is not the subject, and the list is not extensive (Charleton 1677: 61–78). When Charleton considered the reasons for the variety in terms of color, and why it was so difficult to give each species its name, his focus was not on color as a natural phenomenon.

Names became an instrument to describe nature, from the visible to what can be inferred from the senses. Charleton continued the medieval encyclopedic tradition and divided colors into simple and compound terms. The five simple colors are white (*album*), black (*nigrum*), yellow (*flavum*), red (*rubrum*), and blue (*caeruleum*). The compounds are green (*viridis*), red (*purpureus*), gray (*griseus*), brown (*fulvus*), and bay (*badius*). Following a survey of the literature, he recorded eleven names for white, seven for black, sixteen for yellow, sixteen for red, and one for blue. In compound colors, there are nine types of green, five types of red, seven types of gray, six types of brown, and three types of bay. However, no names referring to rare colors in animals and plants are included, and there is only one name in the blue group, which is illustrative of the disproportion.

Although seemingly simple, these lists provide valuable information about the terms that were considered sufficiently relevant in order to be included. On the one hand, there is a preference for equivalents that translate Latin metaphors, such as “milk white” (*lacteus*), while on the other hand, the focus is on the vernacular, since there is more than just one English word for the same term in Latin. An example is the family of words for “scarlet”; color names that are potentially equivalent are grouped (*ruddy*, *poppy red*, *cherry color*, all equivalents to Latin *rubicundus*). This lexical availability was especially useful after Latin ceased to be the main scientific language. In the eighteenth century, lexicographers and writers had to face lexical and semantic problems brought about by the increasingly widespread circulation of texts with specialized color terms. To avoid the circular definitions and ambiguous synonymic relations, they had to explain the context in which *ruddy* is not the same as *poppy red* or *cherry color*:

Rubro – scarlet

Miniaceus – vermilion red

Spadix, *spadiceus* – stammel [a coarse woollen cloth, dyed red], light red

Rutilans – flame colour

Purpurissus – spanish red, such wherewith ladies paint their cheeks and lips

Carneus – flesh colour, carnation [referring to the color of flesh]

Caryophylleus – pink colour, pinks [referring to the flowers]

Roseus – blush colour

Persicus – peach bloom colour

Rufus – red with an eye of yellow

Rubicundus – ruddy, poppy red, cherrie colour

Sanguineus – blood red

Burrhus – deep crimson

Robus – deepest, darkest red

Rubini gemmae colorem – ruby red
Mustelinus – weesel [*sic*] red
Rubellus – redish [*sic*], tending to red.

(Charleton 1677: 68–9)

COLOR TERMS AS NATIVE WORDS

Due to the public's increased familiarity with adopted color words in English that had become so integrated in the language that they were no longer considered foreign words, lexicographers made permanent changes in their descriptions.

Thomas Blount's *Glossographia* was first published in 1656 and lists over 11,000 words, including specialized words used in such fields as mathematics, anatomy, war, music, and architecture. Blount defined words derived from Hebrew, Greek, Latin, Saxon, Turkish, French, and Spanish. The *Glossographia* was the first monolingual English dictionary to explore the origins of words. New words related to color are described as neologisms, borrowed either from French or directly from Latin. Interestingly, new editions included less and less etymological information, which suggests that, by the turn of the century, speakers regarded these words as rare words and not neologisms.

TABLE 6.1 A Comparison of Color-Noun Entries in the First (1656) and Fifth (1707) Editions of Blount's *Glossographia*.

<i>First Edition (1656)</i>	<i>Fifth Edition (1707)</i>
<i>Sanguin, sanguineous (sanguineus)</i> Sanguin colour, is a blood red colour. Sanguin in Heraldry signifies a Murrey colour; but is commonly taken for a complexion, most inclinable to blood.	<i>Sanguine (Lat.)</i> the Heralds Term for the colour usually called murry, or a dark brown colour; also of a ruddy complexion.
<i>Vermillion (Fr. Virmillon)</i> a ruddy colour, made of Brimston and Quicksilver; also Gules in Armory.	<i>Vermilion</i> , a kind of deep red colour.
<i>Incarnation (incarnation)</i> the bringing on of flesh [...]. An incarnate colour is a carnation colour, a flesh color or of the colour of our Damask Rose.	<i>Incarnation</i> , a taking of flesh [...] also a deep, rich or bright Carnation Colour.
<i>Verd (Fr. verd, i. green)</i> green colour in Heraldry.	<i>Vert</i> , in Heraldry, a green Colour.
<i>Argent, Argent (Fr. from Argentum)</i> silver, cony, or mony; in Heraldry it signifies the silver colour, or white.	<i>Argent (Lat.)</i> Silver or coin; in heraldry it stands for the white colour.

Source: Blount 1656, 1707.

COLOR WORDS AS COLOR NOUNS

The description of color terms underwent another significant change beginning at the end of the seventeenth century. This movement began in France with innovative language descriptions that set the tone for lexicographers and grammarians in other European countries throughout the century. The two-volume dictionary published by the Académie Française in 1694 was a significant breakthrough in European lexicography. While it was still being compiled, it inspired two other influential dictionaries, Pierre Richelet's *Dictionnaire François* (1680) and Antoine Furetière's *Dictionnaire universel* (1690). The importance of the latter's contribution to lexicography was Furetière's decision to compile a universal dictionary that would comprise the majority of words that could be used in French, including, and above all, the language of the arts, crafts, and sciences, which had been excluded by the Académie. While Furetière's dictionary was encyclopedic, the *Dictionnaire de l'Académie* (Académie Française 1694) might be called a grammatical dictionary or even a linguistic dictionary concerned with presenting the core vocabulary of the contemporary language with particular attention to its intricate derivational processes (Considine 2014: 54).

In Furetière's dictionary, the definitions of color terms become elaborate descriptions, since both adjectives and nouns may occur in the same section. The technique of defining colors consists of presenting similarities to and differences from other known colors, as demonstrated in the following examples:

Rouge. adj. m. & f. & subst. Couleur éclatante qui est propre à représenter le feu.

(Red. adjective, masculine and feminine, and noun. A bright color that is suitable to represent fire.)¹

(Furetière 1690: 771)

Jaune. Adj. m. & f. & quelquefois subst. Couleur éclatante qui réfléchit le plus de lumière après le blanc.

(Yellow. Adjective, masculine and feminine, and sometimes a noun. Bright color that reflects the most light after white.)

(8)

The words refer to extralinguistic knowledge, processes, and techniques, and not to the use of the word in the language. The first examples of such use occur in contexts of specialized terminologies:

Rouge [...] Les Teinturiers reconnoissent sept sortes de bon rouge.

(Red [...] The dyers acknowledged seven kinds of good red.)

(Furetière 1690: 771)

Jaune [...] Les Teinturiers font le jaune avec de la gaude. On en fait aussi avec le curcumme ou terramerita, qui est une racine; & pour les moindres estoffes, avec la farrette & la genestrolle.

(Yellow [...] The dyers make yellow with weld. It is also made with the curcuma or terra merita, which is a root; and for the smallest fabrics, with saw-wort and dyer's broom.)

(8)

The most original aspect of the dictionary is the inclusion of idioms and metaphors, which describe uses of color names that are unpredictable from a semantic point of view. These do not allow for a literal interpretation, as meaning cannot be deduced outside the context of the expression. In some cases, it is impossible to translate these expressions literally into another language. Moreover, the pragmatic information suggests that there are either positive or negative value judgments associated with an expression.

Jaune, se dit proverbialement en ces phrases. Ce beurre est jaune comme fil d'or. Ce malade est jaune comme safran, jaune comme un coin [*sic*]. On dit par raillerie de celui dont on veut railler les discours. Il dit d'or, & s'il n'a pas le bec jaune. On dit aussi, qu'un homme fait des contes jaunes, quand il dit des choses incroyables. On dit aussi à quelqu'un, qu'on luy fera voir son bec jaune, pour dire, qu'on luy fera voir qu'il s'est trompé, qu'il est un ignorant. Ce proverbe est tiré de la Fauconnerie, & des oiseaux niais qui ont le bec jaune.

(Yellow, it is proverbially said in these sentences. This butter is yellow like gold thread. This patient is yellow like saffron, yellow like a quince. It is said as mockery of one whose speech is to be mocked. He says it of gold, and if he does not have a yellow beak. It is also said that a man tells yellow tales when he says unbelievable things. One can also say to someone that we will make him see his yellow beak, that is to say, that we will make him see that he is mistaken, that he is an ignorant man. This proverb is taken from falconry, and from young [inexperienced] birds who have yellow beaks.)

(Furetière 1690: 8)

In other European languages in which grammarians and lexicographers have followed Furetière's technique, the same tendency to define color terms by establishing a relation to other known objects and colors may be found. Rafael Bluteau's *Vocabulario portuguez e latino* (1712) uses a similar method:

Amarelo. Cor entre branco, & vermelho, igualmente distante de hum, & outro.

(Yellow. Color between white and red, equally distant from one and the other.)

(Bluteau 1712–28: 1:319)

Verde. A cor, que a natureza dà às hervas, arvores, &c.

(Green. A color which nature gives to herbs, trees, etc.)

(8:433)

The most influential development in lexical categorization came with the *Dictionnaire de l'Académie Française* (Académie Française 1694). By distinguishing between nouns and adjectives as lexical categories, the French lexicographers introduced a modern method of arranging words, which was successively adopted by lexicographers dealing with other languages throughout the eighteenth century. The first section of the entry shows the use of the color term as an adjective, which is the most frequently occurring. The second section presents the use of the term as a noun, which is believed to have developed from the adjective. The color term may then be described by other adjectives, which in turn may give rise to new color terms.

Jaune. Adj. de tout genre. Qui est de couleur d'or, de citron, de saffran. Drap jaune. Couleur jaune. Fleur jaune. Il a le teint jaune.

On dit, qu'un homme fait des contes jaunes, quand il dit des choses incroyables.

Jaune, est aussi substantif & signifie, La couleur de ce qui est jaune. Jaune pasle, jaune doré, jaune couleur de citron. Jaune d'oeuf, ou le moyeu de l'oeuf, est la partie de l'oeuf qui est jaune. On dit en parlant de quelqu'un qu'on pretend s'estre trompé par ignorance, qu'On luy fait voir son bec jaune.

(Yellow. Adj. of both genders. Which is the color of gold, of lemon, of saffron. Yellow sheet. Yellow color. Yellow flower.

He has a yellow complexion. It is said that a man tells yellow tales, when he says unbelievable things.

Yellow is also a noun and means the color of that which is yellow. Pale yellow, golden yellow, lemon yellow color. Egg yolk or the center of the egg is the part of the egg that is yellow. It is said in speaking of someone, who claims to be mistaken through ignorance, that he shows his yellow beak.)

(Académie Française 1694: 1:581)

Verd, verte. adj. Qui est de la couleur des herbes, des feuilles d'arbre. Drap verd, satin verd. Verd signifie aussi, Qui n'est pas encore dans la maturité requise.

Verd s.m. La couleur verte, la couleur des herbes & des feuilles d'arbre. Verd brun, verd de mer, verd gay, verd naissant, verd d'émeraude, voilà un beau verd, il est habillé de verd, il aime le verd.

(Green. adj. Which is the color of herbs, of the leaves of trees. Green sheet, green satin. *Verd* also means one who is not yet of necessary maturity.

Green. s.m. The color green, the color of herbs and of the leaves of trees. Brown-green, sea-green, gay green, (plant) shoot-green, emerald green, there is a beautiful green, he is dressed in green, he likes green.)

(2:630)

The *Dictionnaire de l'Académie* is monolingual, and the Latin language is not used to explain the meaning of words and the semantic relationships between derived names. Instead, lexical relations are established between French words. The difference between word origins in a foreign language and words that derive from within the same language becomes especially noticeable when comparing the way in which color names are described that result historically from a Latin borrowing. In fact, by the eighteenth century, such words were no longer considered neologisms, since by then they had been used in French for a long time.

A comparison of Bluteau's Portuguese encyclopedic dictionary and the Académie's dictionary shows the difference as to how color terms were defined. In the French dictionary, color terms form an autonomous referential system bypassing Latin:

Incarnat, ate. adj. Espece de couleur rouge, qui ressemble à celle de la chair vive.

(Flesh-colored. adj. A type of red color, which resembles that of raw flesh.)
(Académie Française 1694: 1:158).

Pourpre. s.m. Couleur, sorte de rouge foncé qui tire sur le violet. Le pourpre est une des couleurs de l'arc-en-ciel.

(Purple. s.m. A color, a type of dark red that approaches violet. Purple is one of the colors of the rainbow.)

(2:300)

Vermeil. adj. Qui est de couleur incarnate. Il se dit principalement des fleurs, & du teint.

(*Vermeil*. adj. Which is flesh-colored. Mainly referring to flowers and complexion.)

(2:632)

Vermillon. s.m. Sorte de Mineral, d'une couleur rouge fort vive, & fort élatante.

(Vermilion. s.m. A type of mineral of a very bright red color and very shiny.)
(2:632)

Vermelhão. Deriva-se do Latim Vermis, Bicho.

(Vermelhão. It is derived from the Latin *vermis*, worm.)
(Bluteau 1712–28: 8:443)

Encarnado. De côr de rosa. Roseus, a, um.

(Encarnado. That resembles the color of a rose. Roseus, a, um.) (3:84)

COLOR TERMS AS A SOURCE OF METAPHORS AND IDIOMS

Both Furetière and the Académie record metaphors and idiomatic expressions. Since the latter focuses on contemporary language, it is to be assumed that they were still in use. Also, in previous bilingual dictionaries it was difficult to incorporate this linguistic data: if there was no equivalent in Latin, such expressions were understood as a vulgar construction, a type of language to avoid in formal writing.

Rouge. Couleur élatante qui est propre à représenter le feu [...] on appelle un Cardinal un chapeau rouge [...] les enfants rouges sont les pauvres d'un hôpital vetus de cette couleur [...] le vin rouge est le vin claret [...] rouge bord, un verre de vin rouge plein jusqu'au bord [...] rouge trogne, un homme qui a le visage rouge & bourgeonné à force de boire.

(Red. A bright color that is suitable to describe fire [...] a cardinal is called a red hat [...] red children are the poor (children) from a workhouse dressed in this color... red wine is claret wine [...] a red brim, a glass of red wine full to the brim [...] a red face, a man who has a red and pimply face because of drinking.)
(Furetière 1690: 772)

Rouge. adj. de tout genre. Qui est de couleur semblable à celle du feu, du sang. Avoir des lèvres rouges, les joues rouges, estre rouge comme du feu, rouge comme un coq, rouge comme un cherubin [...]

Rouge subst. m. Couleur rouge. Lors que la honte ou la colère fait monter le sang au visage, on dit, que Le rouge monte au visage.

Rouge, se dit aussi, d'une espece de fard que les femmes se mettent sur le visage, pour avoir plus de couleur. ex. Elle a toujours du rouge sur le visage.

(Red. adj. of both genders. Which is of a color resembling that of fire, of blood. To have red lips, red cheeks, to be red like fire, red like a rooster, red like a cherub [...])

Red subst, m. A red color. When shame or anger brings (more) blood to the face, it is said that the red rises to the face.

Rouge, is also said of a kind of makeup that women put on the face to have more color. For example: She still has rouge on her face.)

(Académie Française 1694: 2:423)

Much of our knowledge about metaphors involving color terms is due to the growing attention to the history of the Romance languages at the turn of the eighteenth century. In order to discuss notions such as language variety, dialects, standard language, or prestige language, grammarians and lexicographers had to decide which expressions are vulgar and which expressions are archaic.

Between 1726 and 1739 the Real Academia Española published its *Diccionario de la lengua Castellana*. The dictionary aimed to explain “the true meaning of the words, their nature and quality, with the phrases or ways of speaking, proverbs or sayings, and other convenient things in the use of the language” (Real Academia Española 1726–39: 1: title page). This dictionary of Castilian, along with most of the subsequently published academic dictionaries, includes all known references to metaphorical uses of colors, even when they were not attested in literature.

Verde. Metaphoricamente se llama el mozo, que está en el vigor, y fuerza de su edad, y lo dá à entender en las acciones. [...] Se aplica tambien à las cosas, que están à los principios, y que les falta mucho para llegar à perfeccionarse.

No dexar *verdi*, ni seco. Phrase, que vale destruirlo todo sin excepcion alguna.

Viejo *verde*. Llamam al que mantiene, ù executa algunas modales, y acciones de joven improprias de su edad.

(Green. Metaphorically, it is said of the young man, who is in the prime of the vigor and strength of his age and shows it in his actions. It is also applied to things, which are at their beginning, and which are far from reaching perfection.

Do not leave green or dry. A phrase that means to destroy everything without exception.

A green old man. One says it of someone who retains or practices certain manners and youthful actions inappropriate for his age.)

(Real Academia Española 1726–39: 6:s.v.)

Amarillo. Es colór infeliz por ser el de la muerte, ù de la larga y peligrosa enfermedad.

(Yellow. It is an unhappy color, because it is the color of death or of a long and dangerous illness.)

(1:s.v.)

Azul. Metaphoricamente se toma por los zelos, y en lo Poético es mui frecuente.

(Blue. Metaphorically it represents jealousy, and in the poetic style it is very frequent.)

(1:s.v.)

Darse un verde con dos *azúles*. Phrase vulgar con que se dá à entender que uno ha logrado gozar y desfrutar un particular regocíjo y contento mui à su placer y satisfacción.

(To give oneself a green with two blues. A popular expression meaning that one has enjoyed a particular pleasure and is very happy that it is to his pleasure and satisfaction.)

(1:s.v.)

CORE COLOR TERMS IN ROMANCE LANGUAGES: BORROWINGS AND SEMANTIC CHANGE

From around the mid-seventeenth century, textual sources reveal an abundance of names associated with color. The process of lexical borrowing and lexical innovation has already been studied as far as the relationship between Latin and each of the Romance languages is concerned (Kristol 1978; Dworkin 2016). Despite realizing the fact that languages share cognate color names, it is not known precisely if they always refer to the same color or a slightly different one. The explanation must be sought in diachrony and interlinguistic contacts.

Color terms recorded in dictionaries are but a small part of the lexical options that speakers know and share. Accordingly, it is important to consider also data from dialectal variation as well as unused and low-frequency words. They are culturally as significant as core terms. The first issue deserving discussion concerns the fact that color terms may present many options. The semantic category of *red* in English is denoted, in part, by a large number of color terms, for example: *amaranth*, *auburn*, *burgundy*, *cardinal*, *carmine*, *crimson*, *rosewood*, *ruby*, *scarlet*, and *vermilion*. None of these provided the basic color term for the red hue in English, but they are names for various shades of *red* within the category boundaries. Other languages made different choices so, for example, if one compares this situation with the Portuguese color names documented in the seventeenth century, it becomes clear that the English term *vermilion*, the word for one

of the shades of red, is related to the basic name for “red” in Portuguese—*vermelho*. Then, if one considers the equivalent of Portuguese *vermelho* in Spanish, one finds *rojo* (red), which, in turn, can be seen to be very similar to Portuguese *roxo*, which, however, is a different color (denoted by *morado* in Spanish and *violet* or *purple* in English). Curiously, the Portuguese cognate of *purple*, that is, *púrpura*, is the name for another shade of red (Correia 2007: 120–1; Silvestre, Villalva, and Pacheco 2014; Swearingen 2014: 80).

Romance languages have inherited words from Latin etymons that were color names as well as other words that denoted the process for obtaining a coloring matter and could thus, metonymically, represent the color. The set of red words available in late Latin included *rubeus* and *russus*. As these words were polysemic in Latin, it is difficult to understand from texts the particular color they represented. The Romance evidence shows that the etymon *ruber* failed to establish itself in the spoken language. Before falling into disuse, *ruber* acted on dialectal and rural *robis/robeus*, which originally designated the hides of animals. The result of this lexical blend was *rubeus*, the source of French *rouge*, Occitan *roge*, Catalan *roig*, Spanish *rubio*, Portuguese *ruivo*, Sardinian *ruyu*, short-lived Old Italian *robbio*, and Romanian *roib* (Dworkin 2016: 583). By the seventeenth century, the Portuguese word *roxo* referred to a color significantly different from the French *roux*, the Spanish *rojo*, or the Italian *rosso*. *Roxo* and *roux* are color terms, but they are not names for “red”; *rosso* and *rojo*, which are the basic terms for “red” in Italian and Spanish respectively, refer to different shades of red. The successful introduction of new color terms may cause a rearrangement of the color naming system. This is probably the case with Portuguese *roxo*, which shifted its meaning from “red” to “purple.”

Furthermore, derived or compound terms used to refer to color shades may keep their stylistic or literary roles, but their meaning may become ambiguous over time. In the entry for *vermelho*, Bluteau’s *Vocabulário Portuguez* mentions *vermelhão*, *almagra*, *azarção*, *lacra*, *sinopla*, *roxo-terra*, and *cochonilha* as names for shades of red (Bluteau 1712–28: 8:443). However, none of these terms is used in contemporary Portuguese.

The type of compounds found in Pomey’s dictionaries were translated into other modern languages, including Portuguese. Due to their ambiguous meanings, they did not survive as compounds. This is the case with the following color terms from the early eighteenth century:

Cor de Aurora [dawn color]. *Aurorae color*. *Roseus color*. [dawn color. rosy color]

Cor de pomba [dove color]. *Columbinus color*. [dove color]

Cor de cidra [cider color]. *Citrius color*. [cider color]

Cor de cabra sylvestre [wild-goat color]. *Rupricaprinus color*. [wild-goat color]

Cor de folha morta [dead-leaf color]. *Color frondis emortuae*. [dead-leaf color]

Cor varia [varied color]. *Color varius, a, um*. [varied color]

(Franco 1716: 57)

The different terms for BLue create a compelling case study, because some Romance languages have changed the word that refers to this color. In the case of Italian, this shift occurred in the seventeenth century. The various Latin adjectives for the different shades of BLue—*caerulus* (sky blue), *lividus*, *glaucus*, *caesius*, and *venetus* (sea blue)—did not become part of the basic vocabulary of the Romance languages. As mentioned above, they were introduced later as erudite Latin borrowings. Most Romance languages turned to borrowings from other languages to designate BLue. The oldest appears to be the Germanic **blao*, which is also the source of Old French *blo* (modern *bleu*). Spanish, Portuguese, and Italian adapted an Arabic base *lazaward* as the basic term for “blue”—Spanish *azul* is rarely documented prior to the mid-thirteenth century. Interestingly, in Old Italian, the semantic transformation into a name for coloring agents and into a proper color term had already happened. In all diachronic corpora, *azzurro* is extremely frequent. It is found mainly in literary texts, where it qualifies the color of various entities (sky, sea, lakes, eyes, coats of arms, amongst others). Frequently, the term also occurs as a noun and, especially in treatises on painting, it is a component of phrases describing coloring agents (*azzurro della Magna*, *azzurro d’Alemagna* [*azzurro* from Germany]; *azzurro oltramarino* [ultramarine *azzurro*]; and so on [Grossmann and D’Achille 2016: 26–8]). The role of *azzurro* as the basic term for BLue in written Old and Modern Italian is confirmed by the fact that it is the most frequently used in lists of colors: “Altri sono stati di parere che i principali [colori] sieno sette, cioè il bianco, il nero, il giallo, il rosso, il verde, la porpora, e l’azzurro” (Others were of the opinion that the main [colors] are seven, that is, white, black, yellow, red, green, purple and *azzurro*) (Baldinucci 1681: 37).

Despite its long and stable use, Germanic *blu*, which entered Italian at the end of the seventeenth century under the influence of French *bleu*, was originally used to qualify the color of clothes, uniforms, or military standards. It also appeared in the variant *blo*, *blé*, and the non-adapted form *bleu* (Dardi 1990: 94–5). In diachronic corpora, its occurrence is more limited, and it appears as a noun. It denotes darker shades and refers for the most part to clothes, occasionally objects: eyes, the sea, and the sky. *Bleu* came to an end in the mid-twentieth century, when it was listed amongst the foreign terms that needed to be expunged from the Italian language, indicating *blu* as a replacement (Grossmann and D’Achille 2016: 28).

COLOR WORDS AND COLOR PERCEPTION

In addition to the several examples selected from metalinguistic contexts, it is important to refer to a text where the main purpose was not to describe words but, rather, to use words and translations as instruments of description. Richard Waller's *Tabula colorum physiologica* documents the vocabulary of color in the late seventeenth century, and the different status of the classical and modern languages. However, it may be unconventional from a linguistic point of view to refer to what appears to be a table as a text.

Waller's (c. 1660–1715) scope of knowledge was broad, which implied that he could recognize and utilize technical vocabularies from various disciplines. He was skilled in botany, mathematics, anatomy, and music but his interests were in painting and translation. Around the time that he was elected a Fellow of the Royal Society in London (1681), he was inspired by the work of Elias Brenner (1647–1717), who had edited a booklet with samples and short descriptions of thirty-one colorants (Brenner 1680). Waller attempted to standardize numerous color combinations by adding samples of the block mixtures together. In order to achieve this, he invented a mechanism to produce a fresh version of the table for each copy published. After having been presented to the members of the Royal Society in 1686, his “Table of Colors” (*Tabula colorum*) was published in *The Philosophical Transactions* (Waller 1686–7; Malcolmson 2016: 71–2) (see Plate 6.1).

Although he was not a lexicographer, Waller had access to an up-to-date bibliography on light and color theories as well as lists of color terms. The manner in which he wrote his work represented the functions of Latin terminology and the uncertainties of using modern language equivalents (in this case English and French). The principal names of colorants appear only in Latin, indicating that they were the norm in specialized literature and technical books. Some examples are given in Table 6.2.

TABLE 6.2 Principal Names of Colorants from Waller's “Table of Colors” (*Tabula colorum*) with English Translations and Actual Hues.

<i>Tabula colorum</i>	<i>English Literal Translation</i>	<i>Actual Hue</i>
<i>Candidum hispanicum</i>	Spanish white	White
<i>Atramentum fuliginosum</i>	Carbon black	Black
<i>Auripigmentum</i>	Orpiment	Yellow
<i>Ochra usta</i>	Burnt ocher	Red brown
<i>Gutta gambae</i>	Gamboge	Yellow-light green

Source: Compiled by author from Waller 1686–7; with English translations from Kuehni and Schwarz 2008: 56; and actual hues from Baraldi, Fagagno, and Bensi 2006.

The table should have been quadrilingual, but Waller could not always identify the Greek, French, and English equivalents of the Latin terms. He was able to provide all four terms in only nine cases. Accepting his unfamiliarity with the wide variety of color names in modern languages, he left empty spaces where there were gaps in his knowledge “which the more skillful Reader may supply where wanting.” For forty-nine of the samples, he was able to provide an English name, and for fourteen samples he could only identify the color by using the French terms. Overall, within a total of 119 samples, forty-eight did not have an assigned term, and six had either just Greek or Latin terms.

Waller’s table is a typical example of a transitional moment in the use of modern languages during the Enlightenment. The vocabulary of color, as well as other technical vocabularies, underwent a huge expansion owing to the circulation of the printed text. The vast majority of vocabulary received from the classical languages was now of limited value for modern requirements. To a new audience of readers unfamiliar with Latin etymology Latin loan-words were obscure and imprecise terms. Authors were required to focus their attention on modern languages and look for words that could be recognized and used in specialized terminology. Using scholarly borrowings from French seemed the simplest and most obvious solution.

The rhetoric of the Enlightenment shows contemporary languages in a state of constant development. As demonstrated by the above examples from academic dictionaries, languages reflect the prestige of their nations: their technological advancement and material and cultural wealth.

Consequently, literary language must have an abundant vocabulary, while technical language must be clear and unambiguous. Abundance, as far as the vocabulary of color is concerned, is demonstrated by the variety and number of appearances in literary sources, by metaphorical uses, and by the variant morphology of color names. When the focus is placed on the perception of color, natural languages reveal their idiosyncrasies, but the Enlightenment lexicographers and grammarians did not choose to reflect on lexical insufficiency.

Throughout the eighteenth century, lexicographers and authors, working in various languages, coined expressions and/or idioms based on the colors of nature or references to cultural contexts. Many of these have become widely accepted and established within their own languages.