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Colour naming and use preferences in Spanish text typologies (1492–1700)

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Abstract This article is intended to provide a quantitative analysis of colour names and their appearance in certain text typologies between 1492 and 1700. The terms for colour increased in Spain's Golden Age because of the need to describe Spanish and American reality in detail. A review of the specialised literature has provided us with a lexicon of 499 terms of which 277 colour words are recorded in Golden Age documents according to various diachronic corpora. The method for collecting and analysing texts has provided a lexicon of 66 terms for colour with different degrees of preference for a specific type of document. In addition, 23 of these words have been found to indicate greater numerical specialisation by typology. These lexical units are mediaeval terms used especially in scientific prose and lyric, followed by historiography and society prose. These typologies represent the large number of documents generated around the power and expansion of the empire in the study period. Most of these terms with textual preferences are concentrated around the colours *blanco*, *rojo*, *negro* and *amarillo*, but not all of them have preferred terms in all text types. These quantitative data represent the initial stage of research to which other issues must be added in the future such as the context in which these terms appear and the semantic changes that occur in each of the texts.

Keywords Golden Age; colour lexicon; diachronic corpus; quantitative data; Spanish language

Introduction

This work stems from observation of a trend detected while choosing and analysing vocabulary in a variety of text typologies to build a corpus with documents from between 1492 and 1700¹. In the initial word collection process, it was found that in the Golden Age numerous texts of different typologies were produced disseminating mediaeval words or creating new terms to name the colours of the new scientific, socio-cultural and economic realities

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characteristic of these centuries (Verdonk and Mancho Duque 2010; González Sopeña 2019). Our objective, based on this observation, is to understand this hitherto unexamined trend in greater depth, quantify it and use it as a potential aid for characterising different types of texts in prose and verse.

The written documentation appears to show that after being rarely used in the mediaeval period, colour terminology became more common in the Golden Age. The origin of this increase can be related to the fact that texts written in Spanish in the 16th and 17th Centuries form a dense network in which description is part of the communicative goal of many text genres (Oesterreicher 1994). At the same time, according to Corominas and Pascual (2012) in the *Diccionario crítico etimológico castellano e hispánico* (DCECH), the creation of new lexical units to describe colour is a process that often began in the Middle Ages (*albino*, *aloque*, *bermejura*, *celestre*, *negrall*, *sabino*, etc.). Despite their mediaeval origin, the terms are used more frequently in Golden Age texts which revitalise these words according to Duncan (1968 and 1975) and Martinell (1986). Furthermore, Duncan (1975), Verdonk (2004), García Macho (2010) and Sánchez-Prieto Borja (2015) show a change in the use of colour vocabulary in the period under study here. Firstly, new words are used to distinguish the realities referred to in the texts and secondly, old terms are reused with a changed or enhanced meaning.

González Ollé (1981) explains this expedient in reference to the use of various terms for ‘red’ (*barbimejo*, *bermejo*, *rubio*, *royo*, etc.) to present the characteristics of certain characters. His study concludes that these colour terms are taken as a sign of evil or absence of goodness thereby conferring a new value on them. The description of physical features in a literary portrait can transmit pejorative notes through the use of certain terms. Vega García-Luengos (2013) explains the set of colours in various works from the 17th century in which colour names are associated with concepts to establish a game of discovery with the theatre audience. The audience must therefore have understood this new terminology and the assumed meanings.

This article began with the scope to detect a large number of words related to colours and their appearance in the texts. The following research questions were posed regarding this: is there a group of terms related to colour which show preference for a kind of textual typology? If so, are these designations newly created in the Spanish Golden Age? And finally, do the basic colours

yellow, blue, white, black, red and *green* show the same capacity for creating specialist terms?

We hope that the data from the study on preferred colour terms will help other researchers to understand the configuration of this lexicon in the Golden Age, where names for the colour of things were still being formed.

Theoretical framework

In general, studies indicate that some terms are preferred for describing humans or animals: for example, *garzo*, *negral*, or types of land, for example *albero*, *ocre*, *rojal*, or to name the colour of certain minerals such as *aciano*, *pavón*. Junquera Martínez (2019) with data from *Corpus Léxico de Inventarios (CorLexIn)*, highlights the importance of adjectives for the colour of animal fur, like *buro*, *conejo*, *lebruno*, *jabonero*, *soro*, *sirgo* which sometimes can be used in other contexts.

The *DCECH* (Corominas and Pascual 2012) also has colour terms which were first recorded in the 16th and 17th centuries: *albar* ‘white’, 1605; *albazano* ‘chestnut-coloured’, 1623; *albero* ‘white’ 1615; *acaparrosado* ‘greeny blue’, 1605; it clarifies *gualdo* as being ‘yellow like dyer’s greenweed’, XVII; *índigo*, 1555; *negregura*, XV–XVI; *ocre*, 1555; *opaline* ‘colour between white and bluish with iridescent reflections’, 17th century; *overo* ‘similar colour to a peach’, 1492; *pardusco*, 1600; *tapetado* ‘dark or black colour’, 1597; *taheño* ‘red’; 16th century; *trigueño*, 1600; *verdón*, 1609; *verdegay*, 1600; *zaino* ‘dark chestnut’, 1604; among others. Junquera Martínez (2019) adds various examples for the study period, including: *acabellado*, *apiñado*, *carmelita*, *columbino*, *garrofa*, *lagartado*, *lebruno*.

In this vein, Espejo Muriel (1996) with lexicographic material from several centuries, explains that of the 365 colour terms she extracted, just over 40% of the examples refer to colour in the animal world (e.g. *atabanado*, *cambujo*, *castaño*, *mosqueado*); 34.53% to the description of humans (e.g. *canez*, *moreteado*, *trigueño*); and the rest describe the plant kingdom (e.g. *borracho*, *fulvo*, *verdososo*), minerals (e.g. *ocre*, *columbino*) and terms which cannot be included in the above categories and which she calls lexical variety (e.g. *agarbanzado*, *caqui*, *cerúleo*). This specialist also explains that when speaking about colour terms, nouns and verbs are often recorded as well as the adjectives which

inform the reader about the colour (for example, the adjective *embijado*; the noun *embije* and the verb *embijar*).

In the Golden Age, the colour lexicon may be documented by very few examples or only once, which gives an idea of the enormous number of words available to a writer. Jiménez Ríos (2016: 714) in an analysis of adjectives in the digital resource reports 1,430 terms (adjectives and participles functioning as adjectives) of which 37% are cited only once. This finding implies new words were created to resolve communication needs for each text typology. Consequently, the increase in colour words is a trend in the Golden Age, with some terms being very high frequency. These neologisms were created through composition (e.g. *tresalbo*, *verdinegro*) and parasynthesis (e.g. *acanelado*, *denegrido*, *encarnado*), or borrowing (e.g. *brunete*, *esmeralda*), as well as derivation (e.g. *aceitunado*, *anteado*, *verdoso*) because vocabulary in this cultural period frequently uses mediaeval words which also follow a set of successive stages in which the obvious meaning can be transformed in a rhetorical process (Peñas Ibáñez 2017). When discussing word creation through the colour red, Barrio Olano (2009) also provides references from different areas that generate a new lexicon (*aceituna-aceitunado*; *esmeralda-esmeraldino*; *serpiente-serpentino*, and so on).

Berlin and Kay's (1969) research into basic colour terms maintains that the world's languages share all or part of a common set of colour concepts and that terms for these notions evolve in a strict chronological sequence. According to this theory there is also another trend in the use of colour vocabulary, that the basic colours are able to bring together different terms. Stala (2011) in a study of 236 colour words from various dictionaries from a range of historical periods concludes that the gradient of colours in relation to the terms they bring together follows the following order, from the highest to the lowest number of terms which appear in the lexicographic works in the study: *blanco*, *negro*, *rojo*, *verde*, *amarillo*, and *azul*. This order changes according to the corpus analysed, as Espejo Muriel (1996) has shown.

Methodology

In order to respond to the overall objective of this study, focussing on the research questions, the following quantitative methodology was designed to

provide data about how many times each colour term appears in a specific type of text. The procedure followed consisted of the following steps:

1. A lexicon was created by analysing the literature on the study period: Espejo Muriel (1990; 1996); Stala (2011), Jiménez Ríos (2016); Junquera Martínez (2019; 2020). We also added the *Diccionario de Autoridades* (*DA*) because, although published between 1726 and 1739, it aimed to produce a dictionary of the Spanish language that was “el más copioso que pudiera hacerse” (the most substantial that could be produced) and so it collected numerous colour words used in the Golden Age. This procedure provided a total of 499 colour terms. This is specialist material drawn from the conclusions of the bibliographic framework. The inclusion of the *DA* is based on this being the first lexicographic work created by the *Real Academia Española* with material from the Spanish Golden Age.
2. This group of words was analysed in the reference corpora: the *Nuevo Tesoro lexicográfico de la Real Academia Española* (*NTLE*), and the *Corpus del Nuevo diccionario histórico* (*CDH*); as well as the *Corpus Diacrónico y Diatópico del Español de América* (*CORDIAM*), *CorLexIn* and *DCECH* (Corominas and Pascual 2012). This analysis revealed the text typologies in which the words in the lexicon appear. In this process, terms that were not in any database were discarded. The choice of these digital sources collating a large number of documents is based on them offering relevant data for analysis and comparison in order to respond to the research questions.
3. Of the terms selected in the second stage, a search was conducted on the number of appearances in the different text typologies. This data was compiled from *CORDE*. This digital repository makes it possible to obtain this data because it is the only one which provides information about this variable.
4. The number of texts of each type is not the same, which is why for the resulting data to describe the possible trend in colour terms in the texts (1492–1700), the mean and standard deviation is calculated for each one. In the theoretical framework of quantitative research in linguistics, this analysis serves to focus big data (Rasinger 2019).

Then the mean and standard deviation for each one was calculated. These parameters enabled us to find out whether a term appears regularly in all types or shows a preference for a particular type. The greater the difference between the mean and deviation, the greater the difference between the different groups, that is, a term with a very low standard deviation will have a similar appearance value in all text types. As the number of documents for each type in the database is very different, deviations are always high. To show the deviation found for each term is due to a genuine preference for a given type of document and not to the fact that this text type is more abundant in the database, the following check was conducted. Table 1 shows the comparison between the proportion of the different typologies compiled in *CORDE* according to its user manual and the proportion of colour terms found in this study.

Table 1. Value of colour lexicon preferences

	Typologies according to CORDE	Percentage in the CORDE database (%)	Percentage of terms found (%)	Difference (percentage points)
Prose	Scientific	14.7	16.49	1.79
	Society	8.1	13.04	4.94
	Didactic	9.1	4.24	-4.86
	Dramatic	3.9	0.49	-3.41
	Historical	1.3	15.88	14.58
	Legal	5.4	5.26	-0.14
	Narrative	25.15	12.15	-13.00
	Journalistic	2.7	0.58	-2.12
	Religious	6.1	4.96	-1.14
Verse	Epic	4	7.90	3.90
	Dramatic	4.15	4.60	0.45
	Lyric	6	14.41	8.41
	Total	100	100.00	0.00

Table 1 shows differences of more than 5 points in lyric verse, narrative prose and historical prose. In all cases the existing discrepancy is not statistically significant, which means that any deviations in the analysis of each term are due to its preference for a given text type and not to the unequal number of works of this type in the database.

In this study we consider the appearance of a term in a given text type to be significant when the standard deviation is higher than the mean, that is, when the difference between deviation and mean gives negative values. We also consider a high degree of preference for a text type when that difference exceeds 100%, that is, the deviation is double the mean or more. Such cases show very high specialisation. This preference index loses effectiveness when the number of occurrences is low. In this work, we consider it is not possible to locate preference in words with fewer than 10 appearances.

Results and discussion

After scrutinising the documents, 277 colour words have been collected from between 1492–1700, with a total of 58,391 cases. Of all those found, 140 words, more than 50% are colour words with fewer than 10 appearances in the texts (*abrasilado*, *barbillanco*, *zafirino*, etc.) and they corroborate the conclusions of Jiménez Ríos (2016) over scientific and technical texts in *DICTER*.

Another group of 71 examples consists of words which, with more than 10 cases, are shared by many typologies, that is, they show no specialisation according to text type. Such is the case, for example with *blancazo* which according to *CDH* appears in a scientific text by Francisco López de Villalobos, *Sumario de la medicina con un compendio sobre las pestíferas bubas* (1498) and is used a few years later by Bartolomé de Las Casas (1527) and Fernández de Oviedo (1535) to describe the American geographical landscape in historiographic documents. Something similar happens with *anaranjado* which is documented in *Cuentas de Gonzalo de Baeza, tesorero de Isabel la Católica* (1479) and the examples that appear in chronicles of the Indies by Alonso de Santa Cruz (1550), Diego de Landa (1579) and Fray Martín Murúa (1613). This case is interesting, since the preferred form in the 17th century seems to be *naranjado*, and *anaranjado* would not undergo an increase in its rate of use

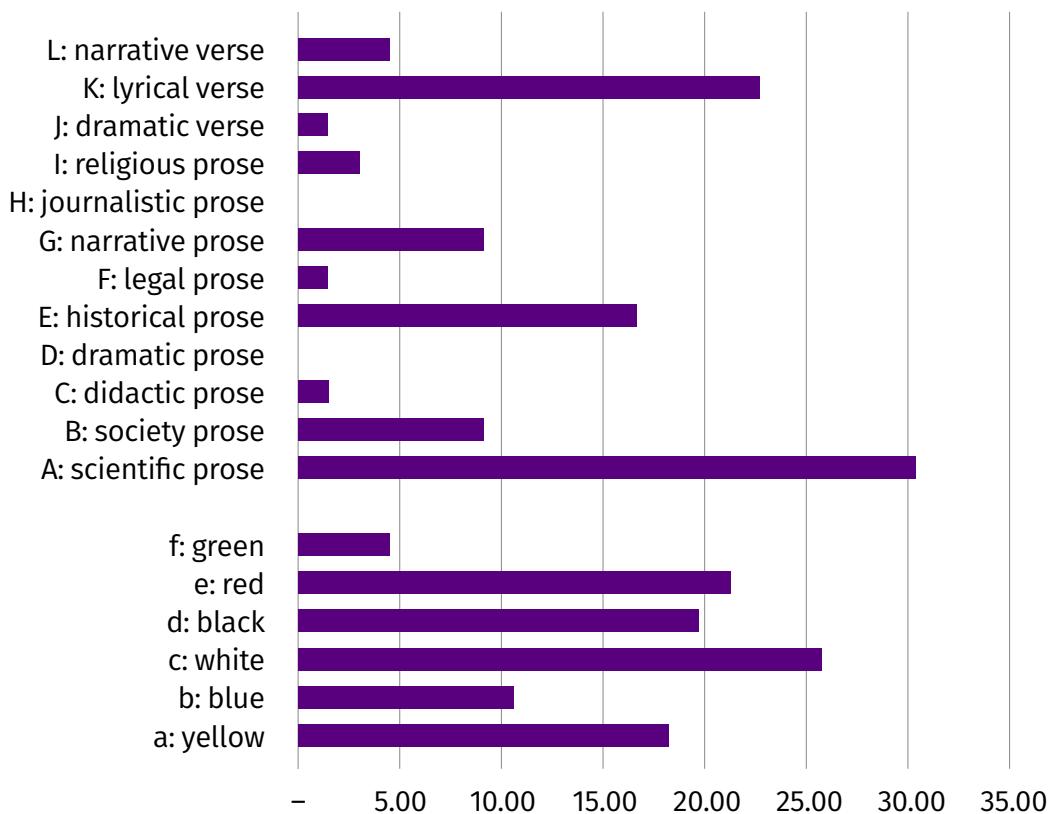
until the 17th century. Regarding its use as an expression referring to orange, this does not seem to be documented until the 19th and 20th centuries.

As regards the preference between colour lexicon and typology, 66 terms have been compiled (23.82% of the total) which can be considered to have a certain degree of preference for a type of document, as Table 2 shows. For this research, it is important to provide data about the records in the mediaeval period because it helps answer one of the questions raised: are these designations newly coined in the Spanish Golden Age? Table 2 shows 66 examples in which 60% of these words are first recorded in the mediaeval period and the rest from the 15th century. Among the examples are nouns such as *amaril-lura*, *ampo*, *bermejura*, and *blancor*, as put forward by Espejo Muriel.

Table 2. Colour lexicon with some preference for a given text typology 1492–1700.
 C: a: *amarillo* (yellow); b: *azul* (blue); c: *blanco* (white); d: *negro* (black); e: *rojo* (red);
 f: *verde* (green). Type: A: scientific prose; B: society prose; C: didactic prose; D: dramatic
 prose; E: historical prose; F: legal prose; G: narrative prose; H: journalistic prose;
 I: religious prose; J: dramatic verse; K: lyrical verse; L: narrative verse. R: 1st documentary
 record *CORDE* and *CDH*.

Lexie	C	Type	R	Lexie	C	Type	R	Lexie	C	Type	R
<i>agallado</i>	d	A	1500	<i>caneza</i>	c	F	1280	<i>livor</i>	e	L	1275
<i>alabastrino</i>	c	K	1549	<i>canicie</i>	c	A	1493	<i>loro</i>	d	E	930
<i>almácigo</i>	a	E	1632	<i>cano</i>	c	K	1213	<i>macilento</i>	c	G	1490
<i>amarillez</i>	a	K	1420	<i>cardenillo</i>	f	A	1379	<i>morado</i>	b	E	1200
<i>amarillo</i>	a	E	1284	<i>carmesí</i>	e	B	1440	<i>morcillo</i>	d	B	981
<i>amarillura</i>	a	A	1381	<i>carmín</i>	e	K	1486	<i>mulato</i>	d	E	1525
<i>ampo</i>	c	K	1590	<i>celeste</i>	b	K	1275	<i>negrал</i>	d	A	1275
<i>añil</i>	b	E	1491	<i>celestre</i>	b	B	1250	<i>noguerado</i>	e	E	1612
<i>argentado</i>	c	K	1268	<i>ceniciente</i>	d	E	1568	<i>pajizo</i>	a	K	1508
<i>arrebol</i>	e	J	1411	<i>cerúleo</i>	b	K	1567	<i>páldido</i>	c	L	1492
<i>bayo</i>	a	B	955	<i>cetrino</i>	a	A	1410	<i>prieto</i>	d	E	1400
<i>bermejo</i>	e	A	1223	<i>cróceo</i>	e	A	1490	<i>púrpura</i>	e	K	1250
<i>bermejura</i>	e	A	1240	<i>denegrido</i>	d	I	1400	<i>rabicano</i>	c	L	1561
<i>berroqueña</i>	d	A	1492	<i>descolorido</i>	c	G	1240	<i>rojo</i>	e	K	1256
<i>blancor</i>	c	K	1200	<i>emblanquecer</i>	c	I	1528	<i>rosado</i>	e	A	1250
<i>blanquecino</i>	c	E	1536	<i>encarnado</i>	e	G	1599	<i>ruano</i>	a	G	1250
<i>blanquete</i>	c	A	1400	<i>esmeralda</i>	f	K	1250	<i>rubicundo</i>	a	G	1430
<i>blao</i>	b	B	1348	<i>fusco</i>	d	A	1211	<i>rubio</i>	a	K	912
<i>bruno</i>	d	B	1380	<i>greda</i>	c	A	1250	<i>rucio</i>	a	G	1200
<i>cande</i>	c	K	1284	<i>hosco</i>	d	A	1459	<i>sanguíneo</i>	e	A	1427
<i>candí</i>	c	A	1330	<i>jalde</i>	f	A	1223	<i>tostado</i>	d	A	1275
<i>canela</i>	e	E	1527	<i>leonado</i>	a	E	1441	<i>turquesado</i>	b	K	1462

Table 2 can be presented through Figure 1 which synthesises the percentages of the data obtained:

Figure 1. Quantitative data from the colour lexicon by text types and colours 1492–1700.

Analysis of the results from Table 2 and Figure 1 indicates that scientific prose has 30% preferred terms. Examples of these documents are plentiful and show the need to describe illnesses and remedies to alleviate or cure them: *beva el vino bermejo*; or to recognise good livestock, as it is said in 1513 in *Obra agricultura* by Gabriel Alonso de Herrera: *Es el buen color blanco o muy bermejo/ y en todos asi machos como hembras*. In addition, due to the novelty of the colour vocabulary, each colour term has to be explained through synonyms and the corresponding clarification as happens with *gríseo o frailego* or it is decided to use the word in conjunction with several other terms so the text can be understood (*el vientre es amarillo oscuro color de cera*):

Es la perdiz del tamaño de una paloma, pero tiene mucha más carne que ella; el pico y los pies son de color **purpúreo**; su capa, por encima, se inclina a **leonado**; es algo más pardo; debajo del pico y ojos tiene una pluma muy menuda y **blanca**, y alrededor ciñe esta **blancura** una lista **negra**, que también perfila los párpados **colorados** de los ojos descendiendo de ellos por los lados alrededor del

cuello unas pintas **negras** sobre lo **blanco**, tendiéndose hasta el pecho que la hermosean, el cual es de color **gríseo o frailego**, que es mezcla de **blanco, azul y negro**; y por los pechos y lados son sus plumas de **noguerado, oscuro, cabellado y blanco**, que de todo se hace mezcla; el vientre es **amarillo oscuro color de cera**; los machos son algo mayores; tienen en los pies garrones, aunque no agudos y largos, como el gallo. Hanse visto alguna vez **blancas** todas, y otras remendadas de su color y **blanco**; hay de éstas mucha cantidad en España. (*CDH*, Alonso Martínez de Espinar, *Arte de Ballestería y Montería*, 1644) [our bold]

Colour is associated with new materials as *NTLLE* records in *blanquete* or *blanco de España* (Juan Palet in 1604); or in *cardenillo* ‘materia de color azul verdoso que se forma por la oxidación en los objetos de cobre’ (material with a greeny blue colour formed by oxidation in copper objects) (Nebrija in 1495). Some documentary examples collected in this article come before the dictionaries of this period as happens with *cróceo* ‘saffron-coloured’ which according to *NTLLE* appeared for the first time in the 19th century in lexicographic works and in the texts in this study is recorded from 1492. This finding corroborates the explanation in Junquera Martinez (2020) with *CorLexIn*.

Historical prose, with 16.6% and society prose with 9% also confirm the need to use colour terms for a variety of communicative purposes. This desire to transmit detail in historiographic documents in which the author operates as a true witness leads to the use of a variety of mechanisms like comparison:

En esta comarca toda parecía montañas altísimas que parecían llegar al cielo; que la Isla de Tenerife dice que era nada en comparación dellas en altura y hermosura; llenas de verdes arboledas, que era (diz que) una cosa de maravilla. Entre medio dellas hay vegas muy graciosas, y al pie deste puerto, al sur, hay una vega tan grande que los ojos no pueden alcanzar al cabo della sin que tenga impedimento de montaña que le parecía que debía [de] tener quince o veinte leguas; por la cual viene un río y es toda poblada y labrada y estaba **tan verde como si en Castilla fuera por mayo o por junio**, puesto que las noches tenían

catorce horas y la tierra siendo [tan] septentrional. (*CDH*, Fray Bartolomé de las Casas, *Historia de las Indias*, c 1527–1561) [our bold]

Also, in inventories in society prose, *CorLexIn* finds a numerous colour lexicon used in such a specific way that, to provide more information, there is no hesitation in providing greater details as happens in an inventory from Atienza, Guadalajara, España (1641): *Vn paño labrado de olanda, digo, de lienço blanco*. And similarly, in a text from Adeje (Tenerife, España, 1695): *Una cortina de jerbilla colorada, digo, parda*.

Lyrical verse with 23% shows the appearance of adjectives like *rojo*, not often seen in mediaeval texts which preferred *bermejo* according to Corominas and Pascual (2012). The texts from these verse works confirm this trend, since there seems to be a preference for this term:

Miraba el Carnero, con **rojo** vellón,
 y el Toro de Europa, con cuernos dorados,
 y a Cástor y Polux, muy bien conformados,
 y al Cáncer, que estaba delante el León;
 a Virgo miraba y al fiero Escorpión,
 a Libra, Centauro con el Capricorno.
 (*CDH*, Fernán López de Yanguas,
Farsa del Mundo y moral, c 1518–1524) [our bold]

In the case of Aldana's poetry, *rojo león* is also recorded, a syntagm used by other authors such as Diego Hurtado de Mendoza and Pedro Malón de Chaide:

Pues ¿qué hará en el alma sensitiva?
 ¿Cuánto será el ardor desta gran llama?
 Con frente enarbolada y fugitiva,
 sigue el nuevo gacel la tierna gama;
 tras la manchada tigresa, amiga esquiva
 va, y el torillo tras la que más ama;
 corre el **rojo león**, medio desnudo,
 tras su leona, fiero y vedejudo.
 (*CDH*, Francisco de Aldana, *Poesías*, c 1560–1578) [our bold]

This comparative syntagm has only been registered in the *Historia general y natural de las Indias* (1535–1557) by Fernández de Oviedo, who, describing an American animal, said: *La color dél es como aquellas manchas que a las mujeres descuidadas les hace el fuego en los zamarros, cuando se los chamusca y queda aquello quemado como entre bermejo e amarillo, o como la color de un león* (CORDE) [our bold]).

In the case of the use of the term *rojo* in an epic poem such as *La Araucana*, this example emphasising the description of a context where a battle begins was found:

Era tanta la furia y tal la priesa,
que el fin y día postrero parecía;
de los tiros la recia lluvia espesa
el aire claro y **rojo mar cubría**;
crece la rabia, el disparar no cesa
de la presta y continua batería,
atronando el rumor de las espadas
las marítimas costas apartadas.

(CDH, Alonso de Ercilla, *La Araucana*, 1569) [our bold]

An example is also found where red goes together with green as a contrasting colour: *cubre la roja sangre todo el prado, / tornándole de verde colorado* [our bold].

In addition to the above, the term *rojo* will be used in many typologies (with the meaning it had during the mediaeval period of ‘burning or flesh-coloured’) as corroborated by the examples drawn from (a) narrative prose; (b) scientific prose; (c) didactics; (d) narrative prose and (e) popular lyrics where other designations can be used:

- a. Fue tan estremado el amor que tuvo el Emperador Nero a esta dama Pompeya, que como tuviese ella los cabellos de color de ámbar, que no es otra cosa sino ser **roxos** [...] (CDH, Fray Antonio de Guevara, *Reloj de príncipes*, 1529–153) [our bold]

- b. Mene, las sardinas o anstrocias, pezezillos como colorados o **rojos**. (*CDH*, Juan Alonso y de los Ruyzes de Fontecha, *Diez privilegios para mujeres preñadas*, 1606) [our bold]
- c. Por otro nombre vulgar se llama esta avecica siete colores, la **roja** es de la sangre del hijo, la amarilla de su desesperación, la parda de su trabajo, la negra de su tristeza, la blanca de su Inocencia y la verde de su esperanza pidiendo a los dioses su consuelo y remedio. (*CDH*, Sebastián de Covarrubias, 1611) [our bold]
- d. [...] que contigo nada se iguala, y en mi opinion vales mucho, y lo que sin encarecimiento digo, ni en las eras del limpio trigo los **rojos** montones como granos de oro resplandecientes, ni en el campo los manzanos, que al suelo su madura fruta derriva, [...] y si tiempo fuere dello, añadiré por colmo á mis cestillas, amarillas ciruelas, como el ambar claro, y entretejiendo al precioso azahar **rojos** claveles y amapolas, á tí tambien, laurel, pienso cogerte (*CDH*, Bernardo de Balbuena, *Siglo de Oro en las selvas de Erífile*, 1608) [our bold]
- e. Si es cándido y **rojo**
 tu tierno Amadís,
 tú cándida y **roja**
 le quieres seguir.
 ¡Esto sí que es lucir!
 (*CDH*, Sor Juana Inés de la Cruz, *Villancicos*, 1676–1692) [our bold]

In turn, educated derivatives have a preference for verse: *alabastrino* (*el pecho, el cuello, el lecho alabastrino*) as with *ampo* (*el color ampo de la nieve*); *argentado* until *plateado* was introduced and became more frequent in lyrical poetry. Another term characteristic of verse is *cano*, appearing in prose in its derivatives *canez* or *caneza*.

As indicated in the Methodology section, this aspect is measured by calculating the average number of appearances of each term in different text types and the standard deviation for this parameter. This lexicon of 66 examples shows preferred typology as well as different degrees of frequency. For example, according to *CORDE* and *CDH*, *jalde* ‘bright yellow’ is used between 1492 and 1700 around 29 times, out of which it appears 10 times in scientific prose (a) and is shown in Table 2 as a colour term which prefers this typology, but

it is also found 6 times in lyrical verse (b) and 5 times in narrative prose (c). The rest is distributed in a minority way in an inventory of goods from society prose (d); in a religious text (e); in a historiographic text (f) and in narrative verse, as shown below:

- a. Y los cocodrilos son muy grandes animales, e de muy diferenciada forma e manera e color, e en otras muchas particularidades, porque, segund el glorioso doctor Isidoro en sus Ethimologias, de la **color** amarilla o **jalde**, es dicho cocodrilo. [...] Esta grandeza no se puede comparar con animal tan pequeño como la iuana, tampoco como en el color; pues que el cocodrilo, que es amarillo o **jalde** (que significa el croceo colore que Isidoro dice), no consuena con la iuana, que comúnmente es de color pardo, e algunas dellas son algo verdes [...] (*CORDE*, Gonzalo, Fernández de Oviedo, *Historia general y natural de las Indias* 1535–1557) [our bold]
- b. Unas en punta suben, esparciendo/ sus tiernas hojas al abierto cielo, otras una corona va texiendo;/otras se tuercen en herboso suelo, de verde, azul y **jalde** señaladas, /con viölado, o con purpúreo velo, y casi unas con otras enlazadas, /heridos los colores van mudando y a los ojos engañan ayuntadas [...] (*CORDE*, Fernando de Herrera, *Poesía*, c 1567–1597) [our bold]
- c. Pues al tiempo que estos caballeros llegaron, gigante estaba desarmado y cubierto de una capa de seda **jalde** con unas rosas de oro bien puestas por ella. (*CORDE*, Garci Rodríguez de Montalvo, *Amadís de Gaula* 1482–1492) [our bold]
- d. 909. Un Breviario, en quarto, de la misma impressión que el contenido en la partida antes desta; con estampas finas; las hojas de **jalde** amarillo; enquadernado en beçerro bayo, con manezuelas de latón: tasado en tres ducados. (*CORDE*, Anonymous, *Inventarios Reales. Bienes muebles que pertenecieron a Felipe II* c 1600) [our bold]
- e. ¿Aquel color tan alegre, aquellas avenidas tan bien compuestas con que se reparte la verdura? ¿Dónde la lindeza del azahar, aquella albura mezclada con **jalde**, aquella fragancia de buen olor que parece que os puede volver el alma al cuerpo? (*CORDE*, Fray Alonso

de Cabrera, *De las consideraciones sobre todos los evangelios de la Cuaresma* 1598) [our bold]

- f. Desta forma entró el granadino Muza, gallardo y bizarro, con toda su cuadrilla, que serían hasta treinta Abencerrajes, todos caballeros de mucho valor. [...] Luego el bando de los Zegríes entró muy gallardo, y no menos vistoso que los Abencerrajes: su librea era verde y morada, cuarteada de **color jalde**, muy vistosa; todos venían en yeguas bayas muy poderosas y ligeras; los pendoncillos de las lanzas eran verdes y morados, con borlas jaldes. (*CORDE*, Ginés Pérez de Hita, *Guerra civiles de Granada* 1595) [our bold]

The textual basis enables corroboration of *DCECH* with reference to *livor* ‘purple’ which is considered a rare poetic Latinism from the 13th century, used by Góngora and Quevedo, but recorded for the first time in a bilingual Spanish-Portuguese dictionary by R. Bluteau (1721). Between 1492 and 1700 it is recorded in Spain and America mainly associated with verse. The first document containing the word *cetrino* appears earlier, in a scientific treatise from 1410, where it is not yet used to refer to the human face as Espejo Muriel points out (1996: 386). In this case *cetrino* and its derivative *cetrinidad* appear at the same time:

No se deue tener en poco/ en manera alguna/ o desestimar el confuento del coraçon:/ antes se deue fazer dentro y de fuera. por consiguiente primeramente se considera el apostema: y/ si se fallare vermejo/ o *cetrino*: bien sera. y si luego comienza a crecer con su/ bermejura/ o *cetrinidad*: bien sera. Empero si el apostema es negro/ o que decline a negro: [...] (*CORDE*, A. Velasco de Taranto, *Tratado de la epidemia y pestilencia* 1410) [our bold]

Of the 66 words that show an affinity with some text type, 23 colour words have a more obvious relationship. As already noted in the methodology we consider a high degree of preference for a text type when the calculated deviation for a term is double its mean of appearance. These terms can be seen in Table 3 which shows the number of times they appear in each text type, the preferred typology for the word, the mean of appearances and their stand-

ard deviation. The different terms are shown in order from the highest to the lowest number of cases.

Table 3. Colour vocabulary with a high preference according to number of cases.

**A: scientific prose; B: society prose; C: didactic prose; D: dramatic prose; E: historical prose;
F: legal prose; G: narrative prose; H: journalistic prose; I: religious prose; J: dramatic verse;
K: lyrical verse; L: narrative verse.**

	A	B	C	D	E	F	G	H	I	J	K	L	Total	Average	Dev.
cardenillo	118	18	2	0	15	4	5	0	0	5	3	0	170	14.17	33.23
bermejura	149	0	0	0	3	0	1	0	1	0	0	0	154	12.83	42.89
cetrino	100	4	2	0	8	1	3	0	1	6	2	2	129	10.75	28.21
añil	2	9	0	0	71	7	0	17	2	3	0	0	111	9.25	20.11
encarnado	0	0	0	0	0	0	85	0	0	0	85	0	85	7.08	24.54
noguerado	1	2	1	0	37	5	0	8	0	5	2	0	61	5.08	10.37
blanquecino	13	1	0	0	29	0	1	2	4	0	0	0	50	4.17	8.65
almáciga	44	0	0	0	1	0	0	0	2	0	0	0	47	3.92	12.64
bruno	0	21	0	0	0	0	13	0	0	2	0	2	38	3.17	6.73
sanguíneo	22	2	8	0	0	0	0	0	3	3	0	0	38	3.17	6.39
candí	24	7	0	0	2	1	2	0	0	0	0	0	36	3.00	6.92
berroqueña	21	0	1	0	4	0	0	0	6	0	3	0	35	2.92	6.04
caneza	12	0	1	0	0	0	0	0	21	0	0	0	34	2.83	6.67
blao	5	22	1	0	0	0	0	0	0	2	0	1	31	2.58	6.29
amarillura	26	0	0	0	0	0	0	0	4	0	0	0	30	2.50	7.49
celestre	0	14	0	0	4	3	0	0	0	0	0	0	21	1.75	4.09
blanquete	10	5	0	0	0	0	0	0	0	0	0	1	16	1.33	3.08
agallado	13	0	0	0	0	0	0	0	0	0	0	0	13	1.08	3.75
canelo	0	0	0	0	12	0	0	0	0	0	0	0	12	1.00	3.46
cróceo	10	0	1	0	0	0	1	0	0	0	0	0	12	1.00	2.86
rabicano	0	1	1	0	0	0	0	0	0	3	0	7	12	1.00	2.09
emblanquecer	0	2	0	0	0	0	0	0	9	0	0	0	11	0.92	2.61
negral	8	2	0	0	0	1	0	0	0	0	0	0	11	0.92	2.31

These 23 terms appear mainly in three text types: scientific prose, with 13 words (54%) as can be illustrated through different samples. In the case of *cardenillo*, a term associated with minerals, with textual presence in the centuries analysed:

Oro viejo suzio se limpia bien lavándolo con cernada de ceniza y agua, y sedeándolo luego y después gratándolo con hilo de alambre, y últimamente dándole en color de **cardenillo** y almojáter, como se ha dicho arriba. Para dar color a cosas muy menudas de oro se suelen poner las piezas sobre dos o tres asquas, fuera de la forja, untadas con el verdete. Verdete se llama el color que se haze de **cardenillo** y almojáter. (*CDH*, B. Pérez de Vargas, *De re metallica* 1569) [our bold]

Los metales que tienen plata y mucho cobre, como son los negrillos y los que se llaman cobrizos, que el color de **cardenillo** que muestran, se funden también con la liga dicha, pero es necesario que en la hornilla se eche, antes de comenzar a fundir, bastante cantidad de plomo pobre que sirva de baño. Chupa éste y embebe en sí la mayor parte de la plata que el metal tiene; y, en estando la hornilla (*CDH*, 1640 Álvaro Alonso Barba, *Arte de los metales* 1640) [our bold]

Examples of nouns which refer to colour are *bermejura* ‘dye or colour which comes from the colour carmine’; *amarillura*, a noun to name the colour yellow on the body, and the adjective *agallado* ‘black colour’. These terms are more abundant in the 16th century, specifically in the work *Tratado de patología* (1500), an anonymous acephalous text, which has reached us in a single manuscript, the 10051, which is preserved in the National Library in Madrid:

[...] estando la muger de espaldas, & buelve sus piernas, una sobre otra; & desi ponle copas con fuego açerca del ombligo & a las dos partes del mirach; & fazle oler bonos olores; & dexa la copa de llana en su madre fasta el tercer dia; & desi pose en vino negro **agallado**, tibio un poco, o en agua que fue cocho en ella mirto [...] [our bold]

& la cura de la **amarellura** del rostro, quando fuere sin dolençia, que toma cada dia gallina asada o pallonmino; & beva vino dulce & coma figos & mielgranas & coma yemas de huevos [...] [our bold]

E la senal del dolor de la cabeza quando fuere de los quatro humores: si fuere de sangre, paresçera la **bermejura** en el rostro & en los ojos e sintra pesadura en la cabeza, con calentura e mucho dormir [...] [our bold]

The word *candi* is related to large-crystalled sugar, obtained through a process of very slow crystallisation, the colour of which varies from transparent white and yellow to dark brown, due to the addition of molasses or colourants. All the examples found refer to this question. Something similar happens with *blanquete* ‘white lead, make-up which women use to whiten their skin’ and *berroqueña*, ‘colour close to stone grey’.

The same thing does not occur with the term *cetrino* ‘greenish yellow colour’ which, like the previous examples, appears in medical texts:

Digo que las ciruelas vnas se dan para alterar y otras para euacuar, de donde la blanca y **cetrina** no valen para obra de medicina. Y de ellas son muzas, conuiene a saber, de medio sabor, entre agro y dulce, y éstas se dan más para alterar la sangre y cólera y calientes humores. [...] Euacua el agua **cetrina** mucho con fortaleza. El mezéreon, junto con las cosas que euacuan melancolía, euacua melancolía, & con las cosas que euacuan flema, euacua flema. (*CDH*, Alfonso Rodríguez de Tudela, *Traducción del Compendio de boticarios* 1515) [our bold]

Si el ave huviere tiña en las alas, toma la çera bermeja e musga e mirabolanos **çetrinos** e salpedres e rruda e goma yedra e granos de trigo e muélele todo en uno e ponlo en un baçín, e después trénplalo con binagre fuerte e déjalo estar nueve días en el baçín, y después ponlo en una redoma e lábale cada día fasta que le beas benir las péñolas nuebas e buenas, e después (*CDH*, Anonymous, *Modo de meleçinar las aves* 1600) [our bold]

In the 17th century, this is recorded in the prose writing of some trades with clear didactic value:

E s esta ave muy hermosa, por la variedad de sus colores y lucidas plumas, tanto, que con imitación no se puede pintar con la pluma; tiénelas muy resplandecientes, purpúreas, verdes, **cetrinas** y doradas, con algunas pintas negras, blancas y cenizas que hacen en él varios y ondulados visos; tiene los ojos grandes y hermosos; los oídos anchos y cubiertos con unas plumas largas, que las levantan y bajan a manera de orejas; el pico es fuerte y de color sufeo, y de la misma [...] (CDH, Alonso Martínez de Espinar, *Arte de Ballestería y Montería* 1644) [our bold]

In samples with less data, *negral* was registered when talking about the properties of rosemary in the treatise by Gómez de Salamanca (c. 1500), and is also used by Fernández de Oviedo in his *Historia general y natural de las Indias* when talking about the lettering of a manuscript: [...] y en aquéstos tenían pintados sus caracteres o figuras de tinta roja o negral [...] (1535–1557). There are more records, but these refer to a surname or nickname of some individuals who appear in the chronicles of the Indies. In this same work, by the same author, *croceo* ‘saffron colour’ is found, appearing in a longer explanation:

Fuera d’éstas ay otra especie de comadrejas, a las quales llamamos en Castilla paialbillos; tienen éstas el color entre **croceo** y negro, que casi se inclina a pardo, con unas manchuelas escuras sembradas por todo el cuerpo, y su cuello por baxo del tragadero es blanco, huele muy bien su pellejo, que parece tener almizcle [...] (CDH, Traducción de los libros de *Historia natural de los animales* de Plinio 1599) [our bold]

This adjective is also used to describe the colour of cigarettes in the 1620 work by the apothecary Juan de Castro, *Historia de las virtudes y propiedades del tabaco, y de los modos de tomarle para las partes intrínsecas y de aplicarle a las extrínsecas* de 1620.

The examples in the historiographic prose amount to 4 terms (17%): *añil*, *canela*, *encarnado* and *noguerado*. Among them, there are a large number of examples of *añil* ‘blue colour’ in works about the peninsular reality:

Otrosí, que los fustanes que se hubiesen de hacer en estos reinos no pudiesen ser negros, sino que primero les fuese dado un turquesado a lo menos de **añil o açul**, porque fuesen perfectamente teñidos. Y que los paños cordellates y estameñas, después que fuesen mudados prietos, o de otra qualquier color [...] (*CDH*, Alonso de Santa Cruz, *Crónica de los Reyes Católicos* 1491–1516) [our bold]

or American, with different explanations about the tonality of this colour term (dark and shiny) (*oscuro y resplandeciente*):

Hay una yerva en las tierras calientes que se llama xiuhquílitl. Majan esta yerva y esprímenla el çumo, y échanlo en unos vasos. Allí se seca o se cuaja. Con este **color añir** se tiñe lo **açul oscuro y resplandeciente**. Es color preciada. (*CDH*, Fray Bernardino de Sahagún, *Historia general de las cosas de Nueva España* 1576–1577) [our bold]

The chromatic term *canelo* ‘cinnamon-coloured’ is a word commonly used to designate animals. Several examples are recorded in American texts for other referents. In the case of Bartolomé de Las Casas, who uses this term to refer to a herb, with a clarification where he refers to the Arabic word henna or the red or yellow powder which the leaves of dried henna are reduced to, used as a dye, particularly for hair:

De aquí procedía otro sacrificio y ceremonias que ejercitaban para agradallo, que él debía de habelles mostrado. Éste se hacía por esta manera: tenían hechos ciertos polvos de ciertas yerbas muy secas y bien molidas, de **color de canela o de alheña molida**; en fin, eran de **color leonada**. Éstos ponían en un plato redondo no llano, sino un poco algo combado o hondo, hecho de madera, tan hermoso, liso y lindo que no fuera muy más hermoso de oro o de plata; era cuasi

negro y lucio como de azabache (*CDH*, Bartolomé de Las Casas, *Apologética historia sumaria* 1527–1550) [our bold]

This is used in the same way by the Inca Garcilaso in their *Comentarios Reales de los Incas* (1609). The chroniclers from the Indies also seemed to show a preference for *blanquecino* ‘colour bordering on white’ and *noguerado* ‘dark brown colour like that of walnut wood’. The examples recorded belong to the Franciscan Motolinía in *Historia de los Indios de la Nueva España* (1536–1541): *En este metl o maguey hacia la raíz se crían unos gusanos blanquecinos [...]*; and the friar Bernadino de Sahagún in *Historia general de las cosas de Nueva España* (1576–1577): *Tiene las flores moradas y blanquezinhas; no son de provecho*; and already in the work by the Jesuit Bernabé Cobo, *Historia del Nuevo Mundo* (1653) with the use of different colour terms which make a very precise description when speaking of the *piedra bezar*: *Así mismo se diferencian en el color; hállanse unas negras, otras pardas, blanquecinas, cenicientas, rubias como doradas, de color aceitunado más y menos oscuro, y berengenadas.*

In the same way *noguerado* would be used in the historiographical prose of the 17th century to describe American nature: [...] *para passar a buscar la yerua Guarema con que tiñen sus hilos, hamacas, y otras cosas: su color es noguerado mui perfeto y fino*, as described in the *Compendio y descripción de las Indias Occidentales* (1629) by Antonio Vázquez de Espinosa.

As can be seen the text types which appear in the analysis of the first 66 words are repeated, except in the case of lyrical verse which becomes the second text type in the group of 66 preferred terms as there is no example in this new group of 23 with greater specialisation. The only term that shows a preference for text type related to verse is *rabitano*, with 7 out of its 12 appearances in narrative poetry. In cases where preferences are shown, there are very significant differences, in some cases more than 100%, that is, the deviation is double the mean or more. Such cases show very high specialisation as occurs with the terms: *añil*, with a total of 111 appearances, 71 in historical prose; *cetrino*, with 100 appearances in scientific prose, out of the total 129 references to the word; *encarnado*, with 85 appearances, all in narrative prose.

Conclusions

The research results confirm the research questions. On one hand, the lexical creation or semantic broadening of the colour words which take on colour meanings, and on the other hand, the characterisation of texts from the Spanish Golden Age through the lexical selection which takes place in them has been demonstrated. In terms of the relationship between text types and lexicon, this study shows a lexicon of 66 words with varying degrees of preferences for a specific typology, and in this order, for scientific, society and historiographic works, as well as the words that appear in lyrical poetry. The other typologies use a large number of colour terms but do not show a degree of preference. Out of the initial lexicon of 499 words, 277 have documentary records in the databases analysed and 140 of them are found very infrequently. Out of the other words that are used more frequently, 71 appear in all typologies equally and 66 show some degree of specialisation.

It seems that, in the Golden Age, colour terms tend towards specialisation without taking into account the fact that they are mediaeval words or newly coined from the 15th century onwards. This study confirms what Duncan (1975) and Martinell (1986) found, that Spanish has a great potential for describing colour as shown by the number of words recorded for the first time in the mediaeval period and so the scarcity of their use must be related to subjective issues of preferences.

It is interesting to observe the presence of preferred terms related to different colours. Thus, *blanco* and *rojo* have dominant terms in almost all text types. For *blanco* we have recorded: *blanquete*, *candí*, *caneza* and *greda* in scientific texts; *blancor* in lyrical works; *blanquecino* in historical texts; *caneza* in legal texts; *macilento* or *descolorido* in narratives; *emblanquecer* in religious prose; the aforementioned *alabastrino*, *ampo*, *argentado*, and so on, in lyrical verse; and *páldido* or *rabilcano* in narrative verse. *Rojo* also has a large number of types in which a certain term is preferred: *bermejo* in scientific texts; *carmesí* in society prose; *canela* in legal texts; *encarnado* in narrative prose; *arrebol* in dramatic verse; *carmín*, *púrpura* or *rojo* in lyrical verse; and *livor* in narrative verse. In contrast, colours with many specialised cases, like names for *negro* or *amarillo*, appear without preferential terms in the different text types analysed.

This work, like the studies of *DCECH* (Corominas and Pascual 2012), Verdonk and Mancho Duque (2010) and Dworkin (2016), concludes that the evolution of colour naming in Spanish is full of evidence of the choice of one term over another, which often cannot be explained but only shows that language use is in the hands of those who speak it. The value of colour to describe the particular character of a person, an element of nature or a peculiarity of any object or living being in general becomes necessary information in centuries in which numerous documents were generated that attach value to detail (Oesterreicher 1994).

Some of the limitations of this study involve the tools that are currently available. The conclusions could be more conclusive with a broader initial corpus. The overall lack of studies on this topic is a significant difficulty. Also significant is the large number of initial terms that are not recorded in current databases and so we have been unable to work with all the necessary information. Finally, the databases themselves show a certain limitation, as all text types and all time periods are not recorded in the same way. The present study is intended as a first approach to the quantitative study of the relationship between lexicon and text typology with currently available tools.

And finally, a relationship has been found between the terms and the elements named by certain adjectives that appear preferentially with a given substantive originating a rhetorical process close to synecdoche:

Aquí también se reducen las formas accidentales cuando los adjetivos suponen [sic, se ponen] por los sustantivos, por serles muy anexos y particulares, “puro”, “aloque”, “blanco”, “tinto”, sin decirlo se entiende vino; “bayo”, “overo”, “cuatralbo”, “rucio”, “morcillo”, “castaño”, “melado”, se entiende caballo. (*CORDE*, Bartolomé Jiménez Patón, *Elocuencia española en arte* 1604 – 1621)

This matter could be the object of future research. There is a clear need to continue with the documentary basis for colour terms as the only way of finding out how this terminology was used in the Golden Age. **N**

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