

Diachronic change in Spanish ‘liking’ constructions

A case of analogical extension through a multiplicity of source constructions

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Analyzing quantitative corpus data from the 13th to the 19th centuries, this study applies a usage-based construction grammar approach and an onomasiological approach to the examination of change in argument structure in Spanish verbs of “liking”, focusing on the verb *gustar* ‘to like.’ This verb went from having a nominative experiencer to having a dative one. I highlight how the semantic properties of the stimuli of liking verbs helped determine the linguistic encoding of the arguments of liking constructions. Furthermore, I argue that a key cause in the change in argument structure of *gustar* was the analogical extension of the dative-experiencer pattern via a multiplicity of source constructions. This study is the first to consider (a) the verb forms *pagarse*, *ser gusto*, and *dar gusto* and (b) onomasiological profiles for the concept of liking, regarding the change in argument structure of *gustar*. Results shed light on cross-linguistic variation in argument structures and extend scholarship on the issue of word order in psych-verb constructions.

Keywords: argument structure, analogical extension, construction grammar, psych-verbs, Spanish

1. Introduction

This corpus study, which uses data from the 13th to the 19th centuries, examines the change in the argument structure of the verb *gustar* ‘to like,’ which went from having a nominative experiencer to having a dative one. First, I (a) consider the “liking” verbs and constructions that were actually being used, as well as their frequency, thus providing information about their lexical strength, and (b) offer a survey of the semantic properties of the stimuli of psychological verbs of liking,

underscoring how these semantic properties were relevant in determining the linguistic encoding of the arguments of liking constructions. I argue that a key cause in the change in argument structure of *gustar* was the analogical extension of the dative-experiencer pattern to the nominative-experiencer pattern via a multiplicity of source constructions, and that the semantic properties of stimuli in the dative-experiencer constructions aided in triggering processes of variation and change in argument structure. This investigation consequently tackles two research lines in the study of Spanish psychological verbs of liking: (i) the diachronic development of liking argument structure constructions in Spanish from a syntactico-semantic perspective, and (ii) cross-linguistic research on change in argument structure.

This analysis aligns with a constructionist usage-based theory of syntactic productivity, following Bybee (1995), Goldberg (1995, 2003), and Barðdal (2008). This theory posits that frequency affects how new verbs are classified in that the more frequent a construction type is, the more productive it will be, and its pattern will more easily extend to new items (Goldberg 1995).¹ Further, Barðdal (2008) suggests that low type-frequency constructions, which are usually more restricted semantically, will still attract new items if these are semantically similar and/or if they are high in token frequency.² The terminology I use in this study is compatible with a constructionist model, where *constructions* are defined as highly routinized basic units of language that can be readily extended to new contexts in principled ways (Goldberg 1995, 2003). Additionally, construction grammar recognizes abstract argument structure types as linguistic units in their own right, assigning meaning directly to them (Bencini & Goldberg 2000). Constructions thus contain meaning in themselves, existing independently of the words that appear in them (Goldberg 1995). This study deals specifically with change in *argument structure constructions*, which Goldberg (1995: 3) defines as “a special subclass of constructions that provides the basic means of clausal expression in a language,” that is, argument structure constructions concern the formal and functional relations between a verb and its arguments (Fedriani 2014). Goldberg (1995: 3–4) provides some examples of English argument structure constructions, copied below in (a–c).

1. Goldberg (1995) defines “type frequency” as the number of different words that occur within a particular construction. However, and as further explained in Section 6.2, I here follow Bybee & Eddington’s (2006) operationalization of type frequency, solely looking at the number of distinct verb forms that appear in different constructions conveying the idea of liking.

2. “Token (or “absolute”) frequency” is the frequency with which a unit (e.g., a morpheme, word, or construction) occurs in running text (Goldberg 1995).

- a. Ditransitive X causes Y to receive Z Subj V Obj Obj₂
Pat faxed Bill the letter.
- b. Caused motion X causes Y to move Z Subj V Obj Obl
Pat sneezed the napkin off the table.
- c. Resultative X causes Y to become Z Subj V Obj Xcomp
She kissed him unconscious.

In this investigation, I carry out a detailed corpus analysis to prove that analogy plays a crucial role in construction development, where both token and type frequencies are analyzed in order to shed light on the productivity of constructions. The corpus, described in detail in Section 5, is comprised of almost three million words, and comes from a compilation of Peninsular Spanish texts spanning seven centuries.

Before going any further, I provide a basic explanation of the Spanish subject and object pronominal systems and of the Spanish tense system. In terms of the subject pronominal system, Spanish, like other southern Romance languages (e.g., Catalan, Italian, Portuguese), marks person and number agreement on the conjugated verb for all tenses. This allows the listener to disambiguate the intended subject of a verb without the presence of an overt subject. Therefore, overt subjects of verbs are optional in Spanish, making it a pro-drop language. Regarding the object pronominal system, Spanish possesses accusative and dative pronouns, which show identical forms for all grammatical persons except for the third person singular and plural. The Spanish subject and object pronominal systems are provided in Table 1 below.

Table 1. Subject and object pronominal systems in Spanish

Grammatical person	Nominative pronoun	Accusative pronoun	Dative pronoun
1 SG	<i>yo</i>	<i>me</i>	<i>me</i>
2 SG	<i>tú</i> (informal) / <i>usted</i> (formal)	<i>te</i>	<i>te</i>
3 SG	<i>él</i> (masc.) / <i>ella</i> (fem.)	<i>lo</i> (masc.) / <i>la</i> (fem.)	<i>le</i>
1 PL	<i>nosotros</i> (masc.) / <i>nosotras</i> (fem.)	<i>nos</i>	<i>nos</i>
2 PL	<i>vosotros</i> (informal) / <i>ustedes</i> (formal)	<i>os</i> (informal) / <i>los</i> (formal masc.) / <i>las</i> (formal fem.)	<i>os</i> (informal) / <i>los</i> (formal masc.) / <i>las</i> (formal fem.)
3 PL	<i>ellos</i> (masc.) / <i>ellas</i> (fem.)	<i>los</i> (masc.) / <i>las</i> (fem.)	<i>les</i>

The tense system in Spanish divides time into three categories: past, present, and future. In morphological terms, the Real Academia Española (1959: 49) describes seventeen morphological tenses found in four moods, as follows:

- a. The indicative mood has four simple and four compound tenses. The simple tenses include the present, preterit imperfect, preterit indefinite, and future imperfect. The compound tenses include the preterit perfect, preterit pluperfect, preterit anterior, and future perfect.
- b. The potential mood has one simple and one compound tense.
- c. The subjunctive mood has three simple and three compound tenses. The simple tenses include the present, preterit imperfect, and future imperfect. The compound tenses include the preterit perfect, preterit pluperfect, and future perfect.
- d. The imperative mood has one tense, the present.

Finally, because the placement of stimuli with respect to the verb plays an important role in this paper, I must briefly mention that Spanish canonical word order is SVO (Lahousse & Lamiroy 2012). In Latin, there were six possible word orders: SVO, OSV, SOV, OVS, VOS, and VSO (Touratier 2008: 260). The same possible word orders appear in Spanish, from its earliest stages until today (for examples and statistical data, see Delbecque (1987: 102, 232)). Additionally, cross-linguistically, long, complex phrases tend to appear at the end of clauses; this is what Wasow (1997) defines as “end-weight”. In my data, taking this end-weight into consideration, one would expect long complex phrases that display the semantic role of stimulus to appear post-verbally (i.e., relative clauses [RCs], subordinate finite clauses [CPs], and some prepositional phrases [PPs]).

Now that I have provided the reader with a brief overview of the study and its aims, as well as with a concise discussion of Spanish word order and a basic explanation of the Spanish pronominal and tense systems, I proceed to discuss previous accounts of the change from nominative-experiencer *gustar* to dative-experiencer *gustar*.

2. Prior accounts of argument structure change in the Spanish liking verb *gustar*

The verb *gustar*, with an original meaning of ‘to taste,’ entered the sphere of emotions through metaphorical extension between the 14th and the 16th centuries, when the verb gained the meaning of ‘to like’ or ‘to take pleasure in X’ without significant structural syntactic changes (Corominas 1954, Melis 1998, Elvira 2006, Vázquez Rozas & Rivas 2007). *Gustar* then underwent a change in argument

structure, from a nominative-experiencer construction, with the stimulus introduced by the preposition *de* 'of' (henceforth, NOMEXP-PPSTIM construction) (1), to a dative-experiencer one (henceforth, DATEXP-NOMSTIM) (2), whose stimulus is the grammatical subject of the clause. This verb and others of its type deviate from the canonical transitive model because their grammatical subject (with the semantic role of stimulus) does not coincide with the logical subject (with the semantic role of experiencer), as in *Me.OBJECT gustan los museos.SUBJECT* 'I like museums.'

- (1) *Todo gran hombre gust-a de los grandes hombres.*
 Every great man.NOM.SG like-TV.PRS.3SG of DET.M.PL great men.NOM.PL
 'Every great man likes great men.' (17th c., *Criticón*)³
- (2) *Me gust-a-n los sermones*
 me.DAT like-TV.PRS.3PL DET.M.PL sermons.NOM.PL
 'I like preachings/sermons' (18th c., *FG*)

The NOMEXP-PPSTIM *gustar* construction (i.e., Arg[nom-experiencer] + *gustar de* 'to like of' + Arg[nom-stimulus], lit. 'to like of something') spans a period of about three centuries (16th–19th c.) during which almost all cases of the DATEXP-NOMSTIM *gustar* construction (i.e., Arg[dat-experiencer] + *gustar* 'to like' + Arg[nom-stimulus]) that are found in my corpus belong to the Modern Spanish period, that is, to the 18th and 19th centuries (see (2)). Data from previous centuries contain only a few isolated cases of the DATEXP-NOMSTIM *gustar* construction, such as (3), which does not have an overt stimulus, although one is provided within brackets for clarity:

- (3) [*Un charlatán que hacía magia*] gust-ó mucho a Andrenio
 [A charlatan that performed magic tricks] like-PST.3SG much to.DAT Andrenio
 'Andrenio liked [a charlatan that performed magic tricks] very much' (17th c., *Criticón*)

This change in argument structure is noteworthy, as it contrasts with the diachronic tendency in other European languages for dative or oblique experiencers to be recoded as subject experiencers, which are understood to be more "regular" from the perspective of a transitive language system (Haspelmath 2001). Yet, although the phenomenon of subject experiencers being recoded as dative or oblique experiencers is less frequent, it has been attested in earlier stages of Ger-

3. Baltasar Gracián, author of *El Criticón* (in [1]), was from Zaragoza. However, most authors of the texts that comprise the corpus were Castilian (e.g., Miguel de Cervantes, Fernando de Rojas, and Lope de Vega, among others), and all were from Spain. See Appendix 1 for a full list of authors, where available.

manic (Allen 1995, Barðdal 2009) and in Romance (Bauer 2000). Additionally, Haspelmath (2001) states that psych-verbs allow both stimulus-experiencer word order and experiencer-stimulus word order in Italian, Greek, Spanish, and probably in other Standard Average European (SAE) languages, and argues that both word orders are relatively usual and unmarked, in the sense that they do not stand out as nontypical or divergent (a definition for “(un)markedness” that I follow in this study). Having said this, the more frequent order for dative-experiencer *gustar* constructions in Spanish shows the experiencer in clause-initial, pre-verbal position (Vázquez Rozas 2006). This change in argument structure from subject experiencers to dative experiencers involves an attraction of regular transitive verbs into a low-type frequency construction that shows semantic coherence, that is, internal consistency (Barðdal 2006).⁴

Table 2 below offers the reader a summary of which constructions are found with *gustar* in my data for Golden Age Spanish and Modern Spanish. Data for these two time periods show *gustar* tokens in the same type of argument structures. There are no examples with *gustar* in my data for the whole medieval period.

Table 2. Argument structure constructions with *gustar* in Golden Age Spanish and Modern Spanish

NOMEXP-PPSTIM	Arg[nom-experiencer] + <i>gustar de</i> ‘to like of’ + Arg[nom-stimulus]
DATEXP-NOMSTIM	Arg[dat-experiencer] + <i>gustar</i> ‘to like’ + Arg[nom-stimulus]
NOMEXP-ACCSTIM	Arg[nom-experiencer] + <i>gustar</i> ‘to like’ + Arg[acc-stimulus]
NOMEXP – no stimulus	Arg[nom-experiencer] + <i>gustar</i> ‘to want’
DATEXP <i>dar gusto</i>	Arg[dat-experiencer] + <i>dar gusto</i> ‘give pleasure’ + Arg[nom-stimulus]
DATEXP <i>ser gusto</i>	Arg[dat-experiencer] + <i>ser gusto</i> ‘be of pleasure’ + Arg[nom-stimulus]
NOMEXP-VO compound	Arg[nom-experiencer] + light verb + <i>gusto</i> ‘pleasure’ + PP + Arg[nom-stimulus]

Most researchers tackling the topic of the change in argument structure of *gustar* have argued that the newer *gustar* construction with a dative experiencer developed by analogy with dative-experiencer psych-verbs *placer* ‘to please, to like’ and *pesar* ‘to cause regret or pain’ (Melis 1997, 1998, 1999a, 1999b, 2018, Elvira

4. Liking verbs are not regular transitive verbs because they do not express an action. However, in the first instances of [nominative-experiencer] *gustar* as a psych-verb, apart from *gustar* taking a prepositional object (introduced by *de* ‘of’) as its stimulus, it could also take a direct object as its stimulus (Melis 1998: 298).

2006, Vázquez Rozas & Rivas 2007, Batllori 2012, Melis & Flores 2013, 2018), which were the most frequent psych-verbs in medieval Spanish (Melis 1997)⁵ In the present study, however, evidence will be brought against this theory of *gustar* developing mainly by analogy with *placer*. I do consider, however, that *placer* did play some role in conjunction with other verbs, as indicated in Figure 1. Therefore, I examine all possible verb-construction pairings conveying the idea of liking which, taken together, could have exerted analogical pressure on *gustar*. I leave an analysis of the possible analogical pressure that the disliking verb *pesar* could have exerted on *gustar* for future studies.

I argue that previous accounts of analogical pressure need to be further refined, as the transition from a more complex system of verb-construction pairings conveying liking (with six main verb-construction pairings being used with similar frequencies) to a simpler one (with one verb-construction pairing being almost always used) points toward a multifaceted picture of constructional transition, with a set of semantic and syntactic parameters being grammatically relevant in shaping the linguistic encoding of experiencer and stimulus arguments.⁶ In this study, I tackle the analysis of some of these parameters, namely, the semantic properties of the stimuli of liking argument structures and the position of the stimulus with respect to the verb, examining how these aided in the constructional change of *gustar*. I have addressed elsewhere (Mojedano Batel 2020) how certain syntactic parameters have affected this change in linguistic encoding, namely, the subcategorization properties of the preposition found in the Spanish nominative-experiencer construction *gustar de* 'to like of'. Results in Mojedano Batel (2020) show that these subcategorization properties were grammatically relevant in determining the use of one argument structure over another, because the DATEXP-NOMSTIM schema could appear with all types of stimuli (i.e., noun phrases [NPs], infinitival clauses [IPs], RCs, and CPs) throughout the Middle Ages and the Golden Age, when, even by the 17th century, the NOMEXP-PPSTIM construction could not easily subcategorize subordinate finite clauses headed by *que* 'that'. Other semantic and syntactic factors that seem to have contributed to the change of argument structure from nominative-experiencer *gustar* to dative-experiencer *gustar* are the grammatical person of the experiencer and the causality features of the argument structure: future studies will examine these two factors, which fall outside the scope of the present paper.

5. For a comprehensive survey of liking verbs and constructions in the history of Spanish spanning the 13th to the 17th centuries, see Mojedano Batel (2020).

6. See Tables 5 and 6 for frequencies of liking argument structures and verbs, respectively, across all time periods.

In terms of specific analyses of the semantics affecting the use of a dative- or nominative-experiencer psych-verb construction, Miglio et al. (2013) find that modern Spanish dative-experiencer constructions are favored when the subject stimulus is clausal, whereas transitive constructions are preferred with nominal subjects. Melis (1997) indicates that the most frequent dative-experiencer psych-verbs in medieval Spanish, *placer* and *pesar*, typically appear without a nominal stimulus. She also asserts that in 19th-century Spanish, *gustar* and *no gustar* seemed to have usurped the place of *placer* and *pesar*, although *gustar* mostly favored nominal stimuli, contrary to what is observed for medieval *placer*. Data from Melis's research also suggest that while human stimuli tend to appear in transitive constructions, and situational stimuli (that is, stimuli that appear in clausal structures [IPs or CPs]) mostly occur in dative-experiencer constructions, inanimate nominal stimuli often fluctuate between the two constructions.

Miglio et al.'s (2013) and Melis's (1997) results point to semantic factors influencing the use of one construction over another. In this same vein, scholars have posited that in a prototypical transitive clause, speakers see the starting point of the action as salient so that agents tend to be coded as subjects of the clause. However, other factors may override this schema in the selection of one participant as more important or more "topical" than the other.⁷ I aim to analyze my data keeping these notions in mind and, to do so, I employ Langacker's (1991) Empathy Hierarchy, discussed in Section 3.

3. Langacker's Empathy Hierarchy

Langacker (1991) proposes an egocentric cline of the probability that an entity will attract our empathy based on likeness and common concerns, assuming our highest degree of empathy is with ourselves (that is, with ourselves as the speaker), and then following this cline:

(4) Langacker's Empathy Hierarchy:

speaker > *hearer* > *human* > *animal* > *physical object* > *abstract entity*
 where ' > ' is interpreted as 'outranks for speaker's degree of empathy.'

7. The term "topical" is understood in the sense of bringing a particular participant into some kind of "focus," as Fillmore (1968: 85) phrases it, because it is an "important" referent, as Givón (1991) frames it. Langacker (1991: 306) follows this conceptualization of topicality, which he notes "is widely recognized as being closely related to subjecthood" although there is not a one-to-one correspondence.

Langacker (1991) observes that although the topicality factor of empathy is less potent than the topicality factor of agentivity as a possible determiner for grammatical structure, it still exerts an influence. He also points out a third topicality factor, definiteness, which he understands as "mostly subjective, for it does not pertain to the inherent nature of the participant, but rather to the highly extrinsic property of whether the speaker and hearer have succeeded in establishing mental contact with it" (1991:307). I have divided the stimuli in liking constructions found in my data into the subsequent categories that follow Langacker's cline in order to examine if such a hierarchy affected the choice of argument structure:

- (5) *animate entity (NP) > physical object (NP) > abstract entity (NP) > NP depicting a situation > relative clause (RC) > infinitival clause (IP) > finite subordinate clause (CP)*
 where ' $>$ ' is interpreted as 'outranks for speaker's degree of empathy.'

I have not included speaker nor hearer to the left of animate entity on the empathy cline, because the animate entities that serve as human stimuli for liking verbs in my data almost always appear in the third person and, due to this, I conflate all human/animate stimuli. The low number of speaker and hearer stimulus examples found in my corpus would not allow me to make any generalizations about the data, although further studies with more data could possibly examine this difference. Additionally, my rationale behind analyzing pronominal and nominal stimuli together in this study is that the number of pronominal stimuli in the data is too small to be examined separately; there are only two tokens of overt pronouns acting as stimuli in the corpus.

While relative clauses, infinitival clauses, and finite subordinate clauses are syntactic categories, I have added them to the cline based on their nominal features, or lack thereof.⁸ The rationale behind the placement of these last three syntactic categories in the cline is as follows: infinitives in medieval Spanish display a typically nominal distribution because they can appear as subject, object, and prepositional object, and they can also be introduced by articles and participate in clausal nominalization (Delicado Cantero 2013). Even though infinitives possess nominal characteristics, they are traditionally described as mixed categories because they can still take objects (Beardsley 1921). This tendency makes infinitives less nominal than relative clauses, which are always headed by a pronoun, display a nominal distribution, and cannot take objects. Finite subordinate

8. In this study, complementizer phrases (CPs), also referred to as finite subordinate clauses, do not encompass relative clauses. CPs are understood in this study to mean finite subordinate sentences or predication that are arguments of a verb (and not of adjectives or nouns), whereas relative clauses (RCs) describe the referents of head nouns or pronouns.

clauses, however, are not nominal in nature, and, therefore, while the infinitive could already appear in the same nominal contexts as simple nouns in medieval Spanish, the nominalization of the subordinate finite clause was gradual, not appearing in the same contexts as nouns and infinitives until Modern Spanish (Tarr 1922). Categories that are less nominal, therefore, are located farther to the right on the cline.

Now that I have divided the constructions' stimuli into categories that follow Langacker's cline and provided a rationale for such a division, I proceed to briefly describe the mechanism of syntactic change that guides this study, i.e., analogy.

4. Analogy and analogical extension

Analogy depends upon the recognition of similarity (Fischer 2013) and operates at the paradigmatic level (Amaral 2018). It is a language-internal mechanism of syntactic change that works across syntagms, extending a form from one syntactic environment to another (De Smet 2009). Harris & Campbell (1995) treat analogy as a condition of structural similarity between two or more items, classes, or constructions. Givón (1991: 258) also understands analogy as involving "the language user's recognition — conscious or subliminal — of *similarities* between two structural or functional contexts" (emphasis in original).

Analogy is generally discussed as a cognitive process that takes place during certain diachronic processes as they occur with one particular form or construction, and yet, the potential role of analogy between forms or constructions is less often discussed (Fischer 2013, Aaron 2016). Fischer (2013) notes that if analogy is truly a crucial mechanism, a multiplicity of source constructions is very possibly a frequent phenomenon in change, since analogy depends on similarity in form and/or meaning between constructions, whether these constructions are of a concrete type (as in collocations or fixed structures) or an abstract type (for example, the particular conventional structure of an NP in a language, the form and position of categories such as Noun, Adjective, Verb in a particular language, etc.). This argument is in line with Goldberg's (1995) account of relations between constructions, which allows for multiple inheritance, therefore accounting for instances which appear to be simultaneously motivated by two or more distinct constructions. Analogical processes among verbal forms and constructions do not challenge Amaral's (2018) argument that analogy always takes place at the paradigmatic level.

In syntax, more constructions are available that are alike in function but with quite different forms, or vice versa, and these may then become confused (Fischer 2013). Additionally, both frequency and economy play a role in syntactic change:

less frequent structures will tend to adapt themselves to more frequent types if there are enough similarities between them, either in form or function or both (Fischer 2013). This hypothesis is in line with usage-based grammar, where frequency is seen as a primary factor in the survival of forms and in their innovation (Bybee 2010).

Now that I have provided a description of how analogy can be used to explain syntactic change, I will proceed to describe the corpus data and methodology for this study.

5. Data

The corpus I have compiled for this study and from which I draw my analysis consists of 2,939,741 words. It is comprised of 41 digitized Peninsular Spanish texts, with data from the 13th–19th centuries. The 41 texts belong to one of two genres found in the corpus: 25 are narrative texts, and 16 are Golden Age comedies written in verse.⁹ In the absence of more narrative prose texts from the 17th century, I completed the sample with Golden Age comedies. According to a study by Vázquez Rozas (2015), rhymed verse can sometimes lead to deviations from standard grammar, though the distinction of narrative prose and comedy in verse from the 17th century did not yield significance in terms of the distribution of certain psych-verb forms (*creo* ‘I believe’ and *pienso* ‘I think’). Various researchers have included plays in verse in corpora they have compiled focusing on narrative or narrative-like text from Spain (e.g., Vergara-Wilson 2014, Vázquez Rozas 2015). These verse plays, along with epic poems (also rhymed) and other narrative texts, provide “a data source that was as homogenous as possible and that was closest to spoken genres” (Vergara-Wilson 2014: 49).

Data are divided in four chronological stages: early medieval Spanish (EMS, 13th–14th centuries), late medieval Spanish (LMS, 15th century), Golden Age Spanish (GAS, 16th–17th centuries), and Modern Spanish (MS, 18th–19th centuries). I created this chronological division following Lapesa (1981), who distinguishes between: early medieval Spanish, spanning from the first Spanish texts to the end of the 14th century, when there is a clear path towards the regularization of Spanish; late medieval Spanish, which is marked by the reign of the Catholic Monarchs, from 1474 to 1525, when there is a newfound interest in Classical culture; Golden Age Spanish, when the unification of the Spanish language is completed; and Modern Spanish, starting in the 18th century, with the creation of

9. See Appendix 1 for a comprehensive list of the works compiled in the corpus, of their title abbreviations, and of their online source.

the Real Academia Española, where grammatical prescriptivism prevails.¹⁰ Table 3 offers the reader a breakdown of the number of works consulted and the total word count of the corpus by time period.

Table 3. Total number of words in the corpus and number of works consulted in each time period

		Number of words	Number of works consulted
Early medieval Spanish	13th c.	154338	4
	14th c.	131443	2
	<i>Total</i>	<i>285781</i>	<i>6</i>
Late medieval Spanish	15th c.	415240	6
	<i>Total</i>	<i>415240</i>	<i>6</i>
Golden Age Spanish	16th c.	366954	2
	17th c.	929879	20
	<i>Total</i>	<i>1296833</i>	<i>22</i>
Modern Spanish	18th c.	351404	3
	19th c.	590483	4
	<i>Total</i>	<i>941887</i>	<i>7</i>
Total		2939741	41

To compile an exhaustive compendium of psych-verbs of liking, I listed all verbs that expressed the notion of liking found in a sample of 50 pages in each text and then uploaded all texts onto the corpus software tool AntConc (Anthony 2017) to extract all instances of liking constructions in the corpus. The searches for each verb included all possible morphological variations for mood, tense, aspect, person, and number. Table 4 below offers the reader a list of all the liking verbs found in the corpus.

10. Following Lapesa (1981:229), the unification of the Spanish language during the Golden Age pertains to the Spanish literary language, in the sense that Catalan literary works decreased drastically from previous centuries. Additionally, there was complete national political unification, where all Spanish regions, as well as overseas regions in Latin America, communicated amongst themselves exclusively in Spanish. The Royal Court only communicated in Spanish, replacing the previously often used Catalan, and basically all literature in Spain was now written in Spanish.

Table 4. List of liking verb forms found in the corpus

<i>Agradar</i> (and the lexically connected <i>ser agradable</i>)
<i>Encantar</i>
<i>Gustar</i> (and the lexically connected <i>dar gusto</i> and <i>ser gusto</i>)
<i>Pagarse</i> (and the lexically connected <i>ser pagado</i> and <i>tenerse por pagado</i>)
<i>Placer</i> (and the lexically connected <i>haber placer</i> , <i>hacer placer</i> , and <i>tomar placer</i>)
<i>Preciar</i>

It must be noted that while this corpus, which includes 1505 tokens of liking constructions (with their corresponding liking verbs), is sizeable, certain components of my analysis are based on a small number of tokens, e.g., there are only 15 tokens of the middle voice construction and 19 tokens of the passive voice construction for late medieval Spanish data, meaning that certain constructions that are unattested in these data might be attested in a larger sample of data. There is a minimum of 312 tokens per chronological stage, however, and the relative frequencies of both liking verbs and constructions allow us to observe certain trends in the data.¹¹

6. Methodology

This section offers a thorough account of the methodology used in applying both an onomasiological approach and a usage-based construction grammar approach to account for constructional change in verbs of liking (Section 6.1) as well as a description of the linguistic parameters examined in the qualitative analysis and the statistical significance tests carried out in the study (Sections 6.2, 6.3).

6.1 Applying a usage-based construction grammar approach and an onomasiological approach to change in argument structure

This study tackles constructional change, which “selectively seizes a conventionalized form-meaning pair of a language, altering it in terms of its form, its function, its frequency, its distribution in the linguistic community, or any combination of these” (Hilpert 2013: 460). Such a change initially affects one single node in the constructional network, which may spread over time to other constructional nodes, affecting groups of constructions. Corpus approaches to constructional

11. Vergara-Wilson (2009, 2014), for example, considers 250 tokens a sufficiently high number to capture trends of adjective use in each of the time periods he studies.

change help researchers to better understand this process by measuring frequencies of variant forms. Even if there is no structural change, a construction can change in terms of its absolute and/or relative frequencies, with these changes also indicating development. Hilpert argues, however, that to establish whether an observed trend represents reliable evidence, frequency measures in quantitative corpus linguistics must be submitted to inferential statistics. This study takes such measures into account, as explained in further detail below.

Additionally, because this study looks at how a concept is expressed over time, I provide usage-based onomasiological profiles for particular concepts (i.e., profiles for liking verbs) and for linguistic functions (i.e., the argument structure constructions available for such verbs), which aid the researcher in better understanding the concept of liking and how this concept has been expressed diachronically. The onomasiological profiles provided here improve on Speelman et al.'s (2003) onomasiological profiles by considering the distributional differences found in argument types. In other words, I examine which arguments, along with their semantic and syntactic characteristics, are preferred by which verbs and constructions. These profiles consider the verbs and constructions that are used, as well as their frequency, which provides information about the verb's and/or construction's lexical strength. Moreover, this study uses onomasiological profiles to shed light on diachronic language change.

As Speelman et al. (2003) note, profiles of different language varieties – and, as in this study, of different time periods – need to be measured for similarity, or uniformity, which they call “dissimilarity measures.” When samples are small (as in this study), Speelman et al. stress that one must look at the absolute frequencies in the profiles that are being compared using the log likelihood ratio-based dissimilarity measure DLLR (see Dunning 1993) to test for the assumption that there actually is an underlying difference among profiles. Therefore, I use Dunning's (1993) log likelihood ratio-based dissimilarity measure DLLR, referred to here as the G^2 log-likelihood-ratio statistic¹, to test the null hypothesis that data from all time periods are statistically similar.¹² This test is applied to onomasiological profiles of liking argument structure constructions where, in order to determine the statistical significance of G^2 , we refer the G^2 value to the *chi*-square distribution with one degree of freedom. The methodology I follow when applying the G^2 log-likelihood-ratio statistic¹ to compare profiles is the one found in Rayson & Garside (2000). I perform a comparison between profiles, comparing each profile to all the others, one by one.

12. Dunning did not use the name G^2 , but this appears to be its preferred name among statisticians (e.g., Agresti 1990, Moore 2004).

6.2 The process

I created three main onomasiological profiles for each time period: one for liking verbs (Table 6) and two for liking constructions (Tables 5 and 7). The profile for liking constructions in Table 5 only includes frequencies of constructions, while the profile for liking constructions in Table 7 includes the distributional differences in the arguments that display the semantic role of stimulus. Only the profiles for liking constructions without distributional differences (vs. profiles for liking verbs and profiles for liking constructions with distributional differences) are subjected to the G^2 log-likelihood-ratio statistic¹.

By creating onomasiological profiles, I provide frequencies of verbs and constructions. If one variant of a construction becomes more frequent over time, it can alter the prototype of that construction. Additionally, type frequency has been proven to correlate with productivity (Bybee & Thompson 2000, Barðdal 2008). For this reason, I measure both token and type frequencies. I follow Bybee & Eddington’s (2006) operationalization of type frequency: to analyze their data, they looked at constructions pertaining to the idea of “becoming” and the verbs these constructions appeared with, along with the adjectives or adjectival expressions that appeared with these verbs. Consequently, I examine the number of distinct verb forms that appear in different constructions conveying the idea of liking, as this seems to be the most manageable way to account for type frequency given human constraints on analysis capacity.

6.3 Qualitative analysis and descriptive statistics

Onomasiological profiles provide the starting point of the analysis, where I examine data based on percentages to identify recurrent patterns of use. I carry out an in-depth analysis for each chronological stage with descriptive statistics which paint a clearer picture of how different verbs and constructions change over time, keeping in mind that there are multiple causes for this constructional transition.

In this vein, and for each time period, I first analyzed the subcategorization properties of prepositions. This initial analysis can be found in Mojedano Batel (2020), with results indicating that these properties are grammatically relevant for determining the morphosyntactic realization of a given construction and trigger processes of argument structure variation, alternation, and change. In this paper, I examine (a) the position of the stimulus with respect to the verb, and (b) the semantic properties of the stimuli of liking argument structures, taking into consideration Langacker’s (1991) Empathy Hierarchy.

When discussing differences in frequencies of liking verbs and constructions, unless stated otherwise, I do not carry out *chi-square* tests to prove their statistical

significance, because, as mentioned before, some components of my analysis are based on a small number of tokens and thus it is not clear if, for example, the increase from 10% to 14% of *agradar* is actually a real increase or a case of random variation. Further studies considering larger amounts of data should address this issue. The only *chi*-square test that is provided for the reader is one that observes the relationship between expected and observed frequencies in terms of type of syntactic stimulus and placement with respect to the verb for all time periods.

7. Results and discussion

In this section, I analyze and discuss the results that show constructional change with regard to liking constructions, with the goal of better understanding the change from nominative-experiencer *gustar* to dative-experiencer *gustar*. Section 7.1 provides onomasiological profiles of verbs and constructions that convey the idea of liking in Spanish, spanning the 13th to the 19th centuries. Moreover, within this section, I statistically compare onomasiological profiles in the different chronological varieties. Further, Section 7.2 examines the semantic properties of the stimuli of liking argument structures in order to determine whether patterns appear.

7.1 Onomasiological profiles

Tables 5, 6, and 7 below present different onomasiological information.¹³ Table 5 provides profiles with all liking argument structure constructions found in each time period, along with their absolute and relative frequencies. There will be a

13. Tables 5 and 6 differ in the number of tokens for modern Spanish. This results from fifteen *encantar* tokens that I could not categorize because they showed first- and second-person object pronouns, making it unclear whether the experiencers were accusative or dative, as in (a).

(a) *me encant-a tanta virtud e ingenio en tan pocos años*
 DAT?/ACC?.1SG charm-PRS.3SG so.much virtue and wit in so few years
 Accusative reading: “I am charmed/enchanted by [observing] so much virtue and wit in such a small child”
 Dative reading: “I like [observing] so much virtue and wit in such a small child”
 (18th c., *Cartas*)

Encantar shows variation between these two types of experiencers and was originally a transitive verb, which sometimes makes it impossible to classify it in terms of argument structure. *Encantar* tokens were thus discarded from the liking construction count, but not from the liking verb count, since these tokens also need to be studied with regard to their lexical strength.

description and examples of each of these argument structures in the following pages. I categorized the dative-experiencer verb-object compound constructions, both causative and non-causative, as separate categories from all other verb-object compound constructions, which have nominative experiencers.¹⁴ The causative constructions found in the corpus are *hacer placer* for the 13th–15th centuries and *dar gusto* for the 16th–19th centuries. Non-causative constructions comprise the two dative-experiencer constructions with the verb *ser* ‘to be’ found in the corpus, namely, *ser gusto* and *ser agradable*. Table 6 shows profiles containing all verbs found in each time period, as well as their absolute and relative frequencies. Finally, Table 7 offers more detailed profiles with information pertaining to these same constructions, improving upon Speelman et al.’s (2003) onomasiological profiles by considering the distributional differences found in argument types and, more specifically, in the arguments that display the semantic role of stimulus. In other words, I look at which arguments with the semantic role of stimulus – along with their semantic and syntactic characteristics – are preferred by which constructions.

Table 5. Profiles of liking argument structures in EMS, LMS, GAS, and MS

Construction	Early medieval Spanish		Late medieval Spanish		Golden Age Spanish		Modern Spanish	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
DATexp-No stimulus	94	19%	79	25%	13	3%	0	0%
DATexp-NOMstim	88	18%	114	36%	56	14%	143	46%
DATexp-PPstim	74	15%	25	8%	1	0%	2	1%
DATexp causative V-O compound	22	5%	9	3%	80	21%	28	9%

14. I follow the definition of *verb-object compounds* or *V-O compounds* for short given by Thompson & Hopper (2001: 33), who understand them to be combinations comprised of a verb plus a lexical noun in which one or more of the following features are found:

1. The combination is lexicalized
2. The object is non-referential
3. The verb is “light” or has a low lexical content

Thompson & Hopper (2001) note that V-O compounds are low in transitivity because it is hard to say that the object is individuated or affected.

Table 5. (continued)

Construction	Early medieval Spanish		Late medieval Spanish		Golden Age Spanish		Modern Spanish	
	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency	Absolute frequency	Relative frequency
DATexp V-O compound with <i>ser</i>	0	0%	0	0%	29	7%	13	4%
Middle voice	74	15%	15	5%	3	1%	2	1%
Passive voice	57	12%	19	6%	5	1%	0	0%
NOMexp V-O compound	57	12%	44	14%	43	11%	18	6%
NOMexp-ACCstim	14	3%	16	5%	28	7%	13	4%
NOMexp-PPstim	3	1%	0	0%	121	31%	49	16%
NOMexp-No stimulus	0	0%	0	0%	10	3%	44	14%
Total	483		321		389		312	

Table 6. Profiles of liking verbs in EMS, LMS, GAS, and MS

Verb	Early medieval Spanish		Late medieval Spanish		Golden Age Spanish		Modern Spanish	
	Absolute frequency	Relative Frequency	Absolute frequency	Relative Frequency	Absolute frequency	Relative Frequency	Absolute frequency	Relative Frequency
<i>agradar</i>	4	1%	25	8%	38	10%	45	14%
<i>encantar</i>	0	0%	0	0%	2	1%	21	6%
<i>gustar</i>	0	0%	0	0%	287	74%	260	80%
<i>pagarse</i>	147	30%	13	4%	4	1%	1	0%
<i>placer</i>	318	66%	269	84%	58	15%	0	0%
<i>preciar</i>	14	3%	14	4%	0	0%	0	0%
Total	483		321		389		327	

*In Table 6, I subsume all lexically connected verb forms under their lexical verb, e.g., data for the verb *agradar* also includes frequencies for *ser agradable*.

Table 7. (continued)

Construction:		DATexp- No stimulus	DATexp- PPstim	Middle voice	NOMexp V-O compound	Passive voice	DATexp V-O compound with <i>dar</i>	NOMexp- ACCstim	NOMexp- PPstim	NOMexp- No stimulus	DATexp V-O compound with <i>ser</i>	Total										
Type of stimulus:	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency										
	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency										
Late medieval Spanish																						
No stimulus	79	100%	0	0%	0	0%	11	25%	6	32%	0	0%	0	0%	96	30%						
NNP animate	0	0%	10	9%	1	4%	5	33%	7	16%	8	42%	3	33%	12	75%	0	0%	0	0%	46	14%
NNP object	0	0%	4	4%	1	4%	7	47%	0	0%	1	5%	0	0%	0	0%	0	0%	0	0%	13	4%
NNP abstract	0	0%	11	10%	6	24%	0	0%	7	16%	0	0%	5	56%	4	25%	0	0%	0	0%	33	10%
NNP situation	0	0%	0	0%	5	20%	1	7%	1	2%	3	16%	0	0%	0	0%	0	0%	0	0%	10	3%
RRC	0	0%	21	18%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	21	7%
IP	0	0%	21	18%	12	48%	2	13%	3	7%	1	5%	1	11%	0	0%	0	0%	0	0%	40	12%
CP	0	0%	47	41%	0	0%	0	0%	15	34%	0	0%	0	0%	0	0%	0	0%	0	0%	62	19%
Total	79	114	25	15	44	19	9	16	0	0	0	321										

Table 7. (continued)

Construction:		DATexp- No stimulus	DATexp- NOMstim	DATexp- PPstim	Middle voice	NOMexp V-O compound	Passive voice	DATexp V-O compound with <i>dar</i>				NOMexp- ACCstim stimulus compound with <i>ser</i>				Total								
Type of stimulus:	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency									
	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency	Relative frequency	Raw frequency									
Golden Age Spanish																								
No stimulus	13	100%	0	0%	0	0%	1	33%	7	16%	0	0%	13	16%	0	0%	0	0%	10	100%	1	3%	45	12%
NNP animate	0	0%	1	2%	0	0%	1	33%	3	7%	0	9%	35	44%	3	11%	7	6%	0	0%	4	14%	54	14%
NNP object	0	0%	2	4%	0	0%	0	0%	3	7%	2	27%	9	11%	5	18%	14	12%	0	0%	5	17%	40	10%
NNP abstract	0	0%	10	18%	0	0%	1	33%	7	16%	3	55%	7	9%	1	4%	22	18%	0	0%	7	24%	58	15%
NNP situation	0	0%	1	2%	1	100%	0	0%	5	12%	0	9%	2	3%	0	0%	10	8%	0	0%	3	10%	22	6%
RRC	0	0%	2	4%	0	0%	0	0%	3	7%	0	0%	3	4%	2	7%	2	2%	0	0%	1	3%	13	3%
IP	0	0%	0	0%	0	0%	0	0%	14	33%	0	0%	11	14%	6	21%	62	51%	0	0%	5	17%	98	25%
CP	0	0%	40	71%	0	0%	0	0%	1	2%	0	0%	0	0%	11	39%	4	3%	0	0%	3	10%	759	15%
Total	13	56	1	3	43	5	80	28	121	10	29	389												

Next, I compare profiles in the different time period varieties using the G^2 log-likelihood-ratio statistic¹ as the measurement of similarity between profiles, or as Speelman et al. (2003) terms it, uniformity. The profiles to which I apply the G^2 log-likelihood-ratio statistic¹ are those found in Table 5, namely, the profiles for argument structure constructions. Table 8 offers G^2 values returned from the test of independence, as well as their corresponding p -values, for all time periods being compared.

Table 8. List of profile comparisons, with G^2 values and p -values

Time periods being compared	G^2	p -value
Early medieval Spanish & late medieval Spanish	71.27	$p < 0.0001$
Early medieval Spanish & Golden Age Spanish	531.6	$p < 0.0001$
Early medieval Spanish & Modern Spanish	509.44	$p < 0.0001$
Late medieval Spanish & Golden Age Spanish	401.48	$p < 0.0001$
Late medieval Spanish & Modern Spanish	342.18	$p < 0.0001$
Golden Age Spanish & Modern Spanish	159.49	$p < 0.0001$

The G^2 log-likelihood-ratio statistic¹, applied to all possible profile pairs, reveals that the difference between the construction frequencies in all profiles is statistically significant. One can therefore conclude that there are clear constructional differences between time periods, and these differences are further analyzed in the following subsections to account for diachronic constructional change.

7.2 Stimuli of liking verbs: An analysis of their semantic properties

I will now proceed to examine, from a semantic viewpoint, what the preferred type of stimulus for each construction is in each time period, with the objective of determining whether patterns appear.

7.2.1 Early medieval Spanish

I analyze each century of early medieval Spanish (i.e., the 13th and 14th centuries) separately, and later comment on the overall patterns of this time period.

7.2.1.1 The 13th century

During the 13th century, a stark contrast emerged between the DAT_{EXP}-NOM_{STIM} and DAT_{EXP}-PP_{STIM} constructions in terms of the semantic properties of the stimuli with which they appeared. However, in terms of similarities, these two constructions always appear with the verb *placer* in its verb slot, mean-

ing that no other liking verb appears in the constructions' verb slot in the corpus for data in the 13th century. In a similar vein, the verb *placer* is the only verb that appears in liking dative-experiencer constructions that do not show an overt stimulus within the phrase.

However, the DATEXP-NOMSTIM and DATEXP-PPSTIM constructions did not pattern similarly in terms of the semantic properties of the stimuli, which can be partly explained through the Empathy Hierarchy. The DATEXP-NOMSTIM construction was likely to select stimuli situated at the low end of the cline (that is, more abstract elements, as in (6)), while the preposition in the DATEXP-PPSTIM construction usually selected stimuli situated at the high end of the cline (that is, less abstract elements, as in (7)).

- (6) DATEXP-NOMSTIM with a CP stimulus:

si yo malfechor fue-se plac-e-r=me hía que
 if I evildoer be.PST-SBJV.1SG please-TV-INF=DAT.SG COND.3SG COMPL
callá-se-des

be.silent.PST-SBJV-2SG

'If I were an evildoer, it would please me that you kept quiet' (13th c., CD)

- (7) DATEXP-PPSTIM with an NP stimulus:

A muchos plaz-e de toda esta corte

To many please-PRS.3SG of all this court

'All of this court is pleasing to many' (13th c., CMC)

Additionally, in my data, the preposition in the DATEXP-PPSTIM construction never selected for CPs, which are the most abstract elements to appear as stimuli within the empathy cline in (5). Starting with (8) and throughout this study, I display the distribution of elements from highest (namely, animate NPs) to lowest (namely, CPs) in the cline, and not from highest to lowest raw frequencies. I will use the mathematical symbols ' $<$ ' (less-than sign), ' $>$ ' (greater-than sign), and ' $=$ ' (equal sign) between two values being compared for clarity purposes, although the values in parentheses already provide the needed information.

- (8) Stimuli of DATEXP-NOMSTIM constructions in the 13th century:

NP animate ($N=2$, 5%) $<$ NP physical object ($N=3$, 8%) = NP abstract ($N=3$, 8%) $<$ NP situation ($N=5$, 14%) $<$ RC ($N=7$, 19%) $<$ CP ($N=17$, 46%)

- (9) Stimuli of DATEXP-PPSTIM constructions in the 13th century:

NP animate ($N=7$, 29%) $>$ NP physical object ($N=2$, 8%) $<$ NP abstract ($N=3$, 13%) $<$ NP situation ($N=5$, 21%) = RC ($N=5$, 21%) $>$ IPs ($N=3$, 13%)

Especially noteworthy is the fact that only the preposition *de* 'of' introduced non-finite (that is, infinitival) subordinate phrases in dative-experiencer constructions in the data for the 13th century, as in (10). IPs are never found as stimuli in the

DAT_{EXP}-NOM_{STIM} construction in the data for this same century. At the same time, only the DAT_{EXP}-NOM_{STIM} schema appeared with CP stimuli in data for this century, with this type of syntactic stimuli being the most prevalent in this construction ($N=17$, 46%), as seen in (8).

- (10) *Dez-i-d=me, caballeros, como vos plaz-e de far*
 Tell-TV-IMP=DAT.1SG gentlemen how DAT.2PL please-PRS.3SG of do.INF
 'Tell me, gentlemen, how you like/wish to do [it]' (13th c., CMC)

In sum, the two constructions did indeed select for different types of syntactic stimuli. Additionally, the DAT_{EXP}-PP_{STIM} schema generally appeared with stimuli that showed semantic properties pertaining to the higher end of the empathy cline (that is, more concrete properties). The DAT_{EXP}-NOM_{STIM} schema, meanwhile, mainly occurred with stimuli containing semantic properties on the lower end of the cline (that is, more abstract properties). I must address the fact that the low frequencies of NP physical objects as stimuli of DAT_{EXP}-PP_{STIM} constructions run counter to the prediction of nominal categories being more frequent in this type of liking constructions. In general, however, (9) shows a cline from more nominal entities to less nominal ones; that the less frequent stimuli introduced by prepositions in DAT_{EXP}-PP_{STIM} constructions are NP physical objects might have to do with the texts that the corpus comprises, and a larger corpus search might be able to shed light on the topic. We leave this issue for future studies.

The middle voice construction (Arg[nom-experiencer] + liking verb + reflexive pronoun + *de* 'of' + Arg[nom-stimulus]), which mainly arose with the verb *pagarse* ($N=43$, 93%), was inverse to the DAT_{EXP}-NOM_{STIM} construction in terms of the stimuli with which it appeared, selecting for stimuli high in the cline and, in this case, adhering to the cline even more rigorously than DAT_{EXP}-PP_{STIM} constructions, as can be seen in (11).¹⁵

- (11) Stimuli of middle voice constructions in the 13th century:
 NP animate ($N=18$, 39%) > NP physical object ($N=8$, 17%) > NP abstract
 ($N=7$, 15%) > NP situation ($N=4$, 9%) > RC ($N=2$, 4%) > IP ($N=1$, 2%) = CP
 ($N=1$, 2%).¹⁶

15. Data in (11) exclude the five tokens (18%) of middle voice construction stimuli that do not appear within the verbal syntagm.

16. The CP that appears as stimulus in this construction is not headed by *que*, but instead by *cuando*. This is important because the preposition *de* 'of' in my data did not allow for CPs headed by *que* in medieval Spanish.

(12) Middle voice construction

e fia-ba por él, e pagá-ba=me de su consejo e
 and trust-PST.3SG for him and pay-PST.1SG=REFL of his advice and
aprend-ía dél
 learn-PST.1SG from.him

‘And I trusted him, and I liked his advice and I learned from him’ (13th c., CD)

Finally, the passive voice construction was another very frequent construction in the 13th century and, like the middle voice construction, largely occurred with *pagarse* ($N=46$, 88%), as in (13).¹⁷

(13) *mostr-ó que del servicio non era muy pag-a-da*
 show-PST.3SG COMPL of.the service NEG be.PST.3SG very paid-TV-PTCP

‘She showed that she was not very pleased with the service’ (13th c., *Milagros*)

Stimuli appearing in the passive construction exhibited a tendency to cluster on the high end of the cline, meaning that this argument structure selected for more concrete entities as stimuli (14).¹⁸

(14) Stimuli of passive voice constructions in the 13th century:

NP animate ($N=12$, 23%) > NP physical object ($N=3$, 6%) < NP abstract

($N=9$, 17%) > NP situation ($N=6$, 12%) < RC ($N=8$, 15%) > IP ($N=2$, 4%).

7.2.1.2 The 14th century

In the 14th century, the distribution of stimuli behaved similarly to that of the previous century, except for the passive voice construction, which dropped in relative frequency from 20% to 2%. This pattern suggests the gradual disuse of the verb *pagarse*, which appeared with almost equal frequency in the middle voice and passive voice constructions in the 13th century. *Pagarse* was still produced in the 14th century, though chiefly in the middle voice construction ($N=28$, 67%), as in (15).

17. Following Clements (2006: 239), “the middle voice is considered a conceptual domain that includes utterances like *Juan se acuesta* [lit. Juan lies (himself) down] ‘Juan lies down’ where agentivity is present, as well as those such as *Juan se durmió* ‘Juan fell asleep’ in which the subject is an experiencer and *se* [the reflexive pronoun] is an aspectual marker.” Some psych-verbs with *se*, such as *enamorarse*, *aburrirse*, *confundirse*, *divertirse*, etc., in which category *pagarse* is included, only allow a middle interpretation, according to Clements (2006: 242). This *se* is non-anaphoric, and it lowers the transitivity of the verb *pagar* by reducing the valency of two arguments to one. Additionally, it converts a verb with an agentive subject into a verb with an experiencer subject.

18. Data in (14) exclude the twelve tokens (23%) of passive voice construction stimuli that do not appear within the verbal syntagm.

- (15) *Et el Bien dio a entend-e-r que se paga-va*
 And the Good give.PST.3SG to understand-TV-INF COMPL REFL pay-PST.3SG
desta partiçión.
 of.this partition
 'And Good insinuated that he was pleased with this allocation.' (14th c., CL)

The decrease in frequency of the passive voice construction is in line with the hypothesis that less frequent constructions that convey the same meaning as more frequent and productive constructions show a tendency to disappear (Fedriani 2013).

A noticeable similarity between the 13th and 14th centuries is that the DATEXP-NOMSTIM construction still overwhelmingly selected CPs as stimuli ($N=41$, 80%) while never appearing with the highest stimuli of the cline (that is, animate and physical object nouns). Moreover, the DATEXP-PPSTIM construction did not yet appear with any CP stimuli as the object of the preposition, generally displaying abstract NPs ($N=31$, 62%) and situational NPs ($N=11$, 22%) as stimuli. This indicates that the DATEXP-NOMSTIM and DATEXP-PPSTIM constructions still showed a different distribution in terms of the semantic properties of their stimuli.

Furthermore, middle voice constructions continued to follow the empathy-based cline from high to low and, as in the 13th century, most stimuli were nouns ($N=26$, 93%) while the rest were IPs, which, like NPs, possess some nominal characteristics ($N=2$, 7%).

Finally, nominative-experiencer verb-object compound constructions (e.g., (16) and (17) below with gloss) increased in use from the previous century, appearing with both *placer* ($N=28$, 76%) and *pagarse* ($N=9$, 24%).

- (16) *Et porque non tom-a-n plazer en ello, non lo*
 And because NEG take-TV-PRS.3PL pleasure in it, NEG ACC.MASC.SG
pued-en aprend-e-r
 be.able-PRS.3PL learn-TV-INF
 'And because they do not take pleasure in it, they cannot learn it' (14th c., CL)

These constructions most often displayed abstract NPs as stimuli ($N=11$, 30%) but did not show any clear preference for one type of stimulus over another, meaning they were not as semantically uniform as other liking constructions.

- (17) *Non es de buen seso el que se tien-e por pag-a-do de*
 NEG be.PRS.3SG of good mind DET REL REFL have-PRS.3SG for pay-TV-PTCP of
d-a-r o dez-i-r buenos sesos, mas es=lo el que
 give-TV-INF or say-TV-INF good minds but be.PRS.3SG=ACC.3SG DET REL
lo-s diz-e et lo-s faz-e.
 ACC-3PL say- PRS.3SG and ACC-3PL make-PRS.3PL
 ‘He who likes saying good things is not in his right mind; he who says and
 does good things is.’ (14th c., CL)

7.2.1.3 The 13th and 14th centuries together

In sum, early medieval Spanish mainly employed two frequent verbs of liking:¹⁹ *placer* ($N=318$, 66%) and *pagarse* ($N=147$, 30%), which together encompassed 96% of all verb tokens. *Placer* occurred with two possible argument structures, that is, either the DATEXP-NOMSTIM construction or the DATEXP-PPSTIM construction. The DATEXP-NOMSTIM construction showed a tendency to appear with more abstract entities as stimuli (18), while the DATEXP-PPSTIM construction showed a preference for the stimulus to be a concrete entity (19).

- (18) *plaz-e-r=me ía que sop-ié-sse-des lo que*
 please-TV-INF=DAT.1SG COND.3SG COMP know. PST-TV-SBJV-2PL DET REL
contesç-ió a un rey
 happen-PST.3SG to a king
 ‘It would please me if you learned what happened to a king’ (14th c., CL)
- (19) *Plaz-e=me d’esta presentaja*
 please-PRS.3SG=DAT.1SG of.this present
 ‘I am pleased with this present’ (13th c., CMC)

Pagarse also occurred with two possible argument structures: the middle voice (20) and the passive voice (21) constructions. Both these constructions exhibited a tendency to appear with more concrete stimuli, that is, stimuli on the higher end of the empathy cline. These stimuli were always introduced by the preposition *de* ‘of’.

- (20) *E entr-ó aquel omne e pag-ó=se de él e él de ella*
 and enter-PST.3SG that man and pay-PST.3SG=REFL of him and him of her
porque era fermoso
 because be.PST.3SG beautiful
 ‘And that man entered, and he liked her, and she liked him because he was
 beautiful’ (13th c., *Sendebarr*)

19. Among the less frequent verbs *agradar* and *preciar*.

- (21) *E el alcalde fue ý muy pag-a-do del niño*
 and the mayor be.PST.3SG there very pay-TV-PTCP of.the boy
 'And the mayor was very pleased with/liked very much the boy right there and
 then' (13th c., *Sendebarr*)

While the middle voice construction occurred frequently throughout early medieval Spanish, the passive voice construction sharply decreased in use from the 13th to the 14th century, possibly because two other liking constructions – the middle voice construction and the DATEXP-PPSTIM construction – generally appeared with stimuli that were higher on the empathy cline, stimuli which the passive voice construction also favored.

The results presented here show semantic categories of stimuli as connected to different verbs and argument structures. The data point toward a clear distribution, since the liking verbs and constructions can be grouped in two different categories according to the stimuli they select: DATEXP-NOMSTIM *placer* occurred mostly with abstract entities as stimuli, while DATEXP-PPSTIM *placer* as well as middle voice and passive voice *pagarse* preferably selected more concrete entities as stimuli, always introduced by the preposition *de* 'of'. This opposition suggests semantic distinctions between liking verbs and constructions in this domain and, more specifically, it indicates that stimuli introduced by a preposition tended to be higher in the empathy cline than stimuli introduced directly after the verb.

In addition, the DATEXP-NOMSTIM construction offered syntactic distinctions in terms of stimulus placement with respect to verb, according to the type of stimulus it appeared with, whereas all other constructions, which introduced the stimulus through a preposition, did not offer these distinctions, overwhelmingly appearing with a postverbal stimulus.

In early medieval Spanish, the DATEXP-NOMSTIM construction always appeared with the verb *placer* in its verb slot. This verb-construction pairing emerged 84 times with an overtly stated stimulus within the construction: its (pro)nominal stimuli (including NPs and RCs) were predominantly found in preverbal position ($N=18$, 66.6%), while its infinitival stimuli and complementizer phrase stimuli were predominantly found in postverbal position ($N=55$, 96%). The *chi*-square test for type of syntactic stimulus (IPs and CPs in one category, and NPs and RCs in another) and placement with respect to the verb for this time period, i.e., early medieval Spanish, indicates that their relationship is significant ($p > .001$).²⁰ From these results we can conclude that the role of the length of the

20. For all *chi*-square tests, I grouped IPs and CPs together because they are the lowest two categories on the cline in terms of nominal-like features and pattern very similarly in terms of their placement with respect to the verb. In this same vein I grouped NPs and RCs together because they are the highest two categories on the cline in terms of nominal-like features and also pattern very similarly in terms of their placement with respect to the verb.

constituents, or end-weight, does not seem to play a part in terms of the stimulus placement with respect to the verb, as evidenced by relative clauses tending to appear preverbally instead of postverbally.

Chart 1 summarizes the main results of the early medieval Spanish period. It contains absolute frequencies and which constructions rise, are maintained, or fall. The information for this chart is taken from Table 7 and is broken down by time period: only the more frequent constructions are presented in these charts, but the reader can always refer to Table 7 for more detailed information, including relative frequencies.

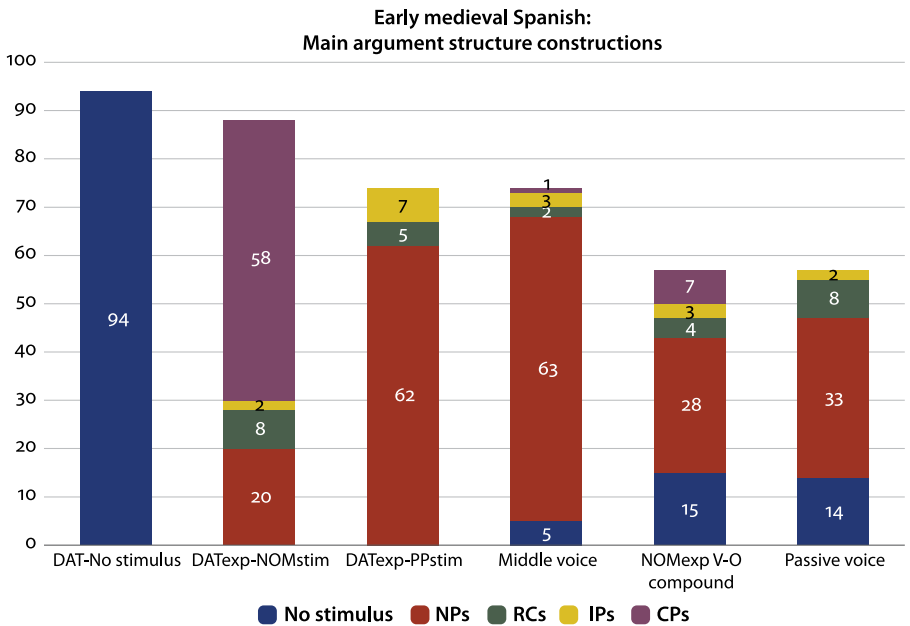


Chart 1. Early medieval Spanish main argument structure constructions

Chart 1 shows that all dative-experiencer constructions (that is, the DATEXP-No stimulus, DATEXP-NOMSTIM, and DATEXP-PPSTIM constructions) were the most frequent ones in early medieval Spanish and could appear with all types of syntactic stimuli. The DATEXP-NOMSTIM construction overwhelmingly appeared with finite subordinate clauses as stimuli (depicted in Chart 1 in green) and the dative-experiencer construction was employed when there was no overt stimulus within the clause (depicted in Chart 1 in blue). Usually these non-overt stimuli referred to situations, and the dative-experiencer construction allowed for them to not be overtly expressed within the clause. On the contrary, middle voice constructions, which introduced their stimuli through the preposition *de*

'of', did not easily allow for the omission of stimuli within the clause. Additionally, the distribution of stimuli in the DAT_{EXP}-PP_{STIM} construction and the middle voice construction is remarkably similar. However, the dative-experiencer construction was more semantically uniform than the middle voice construction was at this point in time, having been inherited directly from Latin.

7.2.2 Late medieval Spanish

A preference for entities at the low end of the empathy cline as stimuli in the DATEXP-NOMSTIM construction continued in the 15th century, much as had already been the case in early medieval Spanish, as reflected in (22), meaning this construction still exhibited a preference for abstract entities as stimuli, such as CPs, as illustrated in (23a), or IPs, as in (23b).

- (22) Stimuli of DATEXP-NOMSTIM constructions in the 15th century:
NP animate ($N=10$, 9%) > NP physical object ($N=4$, 4%) < NP abstract
($N=11$, 10%) < RC ($N=21$, 18%) = IP ($N=21$, 18%) < CP ($N=47$, 41%),
- (23) a. *El rey dix-o: « Bien me plaz-e quel*
the king say.PST-3SG well DAT.1SG please-PRS.3SG COMPL.PRON.NOM.3SG
aya esta honrra »
have.PRS.SBJV.3SG this honor
‘The king said: “It well pleases me that he obtains this honor”’
(15th c., *Don Tristan de Leonís*)
- b. *si a vos plug-ie-sse qued-a-r aqui con Brangel*
if to.DAT you please.PST-TV-SBJV.3SG stay-TV-INF here with Brangel
‘if it pleased you to stay here with Brangel’ (15th c., *Don Tristan de Leonís*)

In the 15th century, IPs often appeared in the DAT_{EXP}-NOM_{STIM} construction, which is something that did not happen in early medieval Spanish, as IP stimuli in this construction were very rare. A possible explanation for this new tendency is that, because the DAT_{EXP}-PP_{STIM} construction was decreasing in frequency, the DAT_{EXP}-NOM_{STIM} construction (which also appeared with nominal stimuli in earlier stages) therefore expanded in its subcategorization properties, co-appearing with infinitival clauses as stimuli, in a case of analogical extension from DAT_{EXP}-PP_{STIM} to DAT_{EXP}-NOM_{STIM}. It is noteworthy that while the DAT_{EXP}-PP_{STIM} construction decreased in use from the 14th century to the 15th century, going from a relative frequency of 22% to a relative frequency of 8%, the DAT_{EXP}-NOM_{STIM} construction increased its frequency in the same time period, going from a relative frequency of 22% to a relative frequency of 36%.

The DAT_{EXP}-PP_{STIM} construction, however, still maintained its semantic coherence by generally appearing with IP stimuli as objects of the preposition ($N=15$, 60%) and never with CP stimuli as objects of the preposition. Because

the DATExp-NOMSTIM construction also subcategorized for infinitival clauses as stimuli, the very similar DATExp-PPSTIM construction (which appeared with the same verb forms as the DATExp-NOMSTIM construction) dwindled, since it was not as productive.²¹ Also, contrary to what took place in early medieval Spanish, both constructions followed the same low-to-high order on the cline in the 15th century. As a result, there seemed to be no need to maintain two very similar constructions that selected overlapping types of stimuli.

Verb-object compound constructions with nominative experiencers, much like DATExp-NOMSTIM constructions, commonly appeared with either no overt stimulus within the verbal syntagm ($N=11$, 25%) or with CPs as stimuli ($N=15$, 34%), meaning they also tended to select for more abstract entities as stimuli (24).

- (24) a. *e ou-ie-ro-n mucho plazer e alegría las monjas*
 and have-TV-PST-3PL much pleasure and joy the nuns
 ‘And the nuns received much pleasure and joy’
 (15th c., *Don Tristán de Leonís*)
- b. *tom-ó muy grand plazer porque don Lançarote est-a-ua*
 take-PST.3SG very great pleasure COMPL Don Lancelot be-TV-PST.3SG
doliente en aquella sazón
 hurting in that way
 ‘He took great pleasure in [knowing] that Lancelot was hurting in such a situation’
 (15th c., *Don Tristan de Leonís*)

The relative frequencies of these nominative-experiencer verb-object compound constructions were quite similar in the 14th and the 15th centuries (16% and 14%, respectively). These constructions resembled the DATExp-NOMSTIM construction in terms of their stimuli but occurred far less frequently, which made it likely for them to disappear.

The expanding DATExp-NOMSTIM construction was also possibly more attractive to speakers in that it offered syntactic distinctions in terms of the placement of the stimulus with respect to the verb, according to the type of stimulus the construction appeared with, while the DATExp-PPSTIM overwhelmingly appeared with a postverbal stimulus. More specifically, in the 15th century, the DATExp-NOMSTIM construction chiefly appeared with *plazer* in its verb slot, as in previous centuries. *Plazer* emerged 95 times in this construction: its (pro)nominal stimuli were predominantly found in preverbal position ($N=29$, 97%) while its infinitival stimuli and finite subordinate phrase stimuli were mostly found in postverbal position ($N=56$, 87.5%). Furthermore, the emerging, less frequent DATExp-NOMSTIM construction with *agradar* showed the same tendency in terms of syntactic distinctions of the stimuli, although to a lesser extent: its

21. The syntactic restrictions on stimuli have been analyzed in depth in Mojedano Batel (2020).

(pro)nominal stimuli (including NPs and RCs) were mostly found in preverbal position ($N=7$, 58%) while its infinitival stimuli and finite subordinate clause stimuli were predominantly found in postverbal position ($N=2$, 66.6%). The *chi*-square test for type of syntactic stimulus (IPs and CPs in one category, and NPs and RCs in another) and placement with respect to the verb for late medieval Spanish indicates that their relationship is significant ($p > .001$). Thus, for Late medieval Spanish, in line with what has been found for the previous two centuries under analysis, the role of the length of the constituents does not seem to play a part in terms of situating the stimulus pre- or post-verbally, as evidenced by relative clauses tending to appear preverbally.

On the higher side of the empathy cline, we encounter the middle voice construction, which generally appeared with the verb *pagarse* and which had been progressively decreasing in use from the 13th century. This construction favored nominal and nominal-like categories as stimuli, which were objects of the preposition *de* 'of', as in (25), and never appeared with finite subordinate clauses as stimuli, as seen in the breakdown of stimuli of middle voice constructions provided in (26).

- (25) *Y como las mujeres se pag-ue-n de hombres alegres y amadores*
 and as the women REFL pay-PRS.SBJV-3PL of men happy and loving
y enamorados, mas con condición que no am-e-n a otra
 and in.love but with condition that NEG love-PRS.SBJV-3PL to other
sino a ella
 except to her
 'And how women like men who are joyful and loving and in love, but on the
 condition that they love no one else but them' (15th c., *Corbacho*)

- (26) Stimuli of middle voice constructions in the 15th century:
 NP animate ($N=5$, 33%) < NP physical object ($N=7$, 47%) > IP ($N=2$, 13%) >
 NP situation ($N=1$, 7%)

Passive constructions were mostly used with *pagarse*, much like middle voice constructions, and showed an increase in relative frequency from 2% ($N=5$) in the 14th century to 6% ($N=19$) in the 15th century. This increase is based on a small number of tokens and thus it is not clear if it is a real increase or a case of random variation. Passive constructions also tended to follow the empathy cline from high to low (apart from the six tokens that appear with no overt stimulus within the clause, amounting to 32% of passive constructions for this time period), where, again, finite subordinate clauses do not appear in the data (27).

- (27) Stimuli of passive voice constructions in the 15th century:
 NP animate ($N=8$, 42%) > NP physical object ($N=1$, 5%) < NP situation
 ($N=3$, 16%) > IP ($N=1$, 5%)

What has been discussed up to this point in this section indicates that the number of liking argument structures decreased from early medieval Spanish to late medieval Spanish, especially as many argument structures patterned similarly in terms of the semantic properties of the stimuli with which they appeared. More specifically, the DATEXP-NOMSTIM and DATEXP-PPSTIM constructions patterned together, with stimuli that showed semantic properties pertaining to the lower end of the Empathy Hierarchy (that is, more abstract properties); the middle voice and passive voice constructions, likewise, patterned together, with stimuli containing semantic properties on the higher end of the cline (that is, more concrete properties).

With this in mind, *placer* continued to be the most frequent verb in late medieval Spanish ($N=254$, 79%), which, as previously mentioned, mostly favored constructions with dative experiencers and stimuli with abstract semantic properties. Regarding dative-experiencer constructions, the DATEXP-PPSTIM construction diminished in frequency in favor of the DATEXP-NOMSTIM construction. Furthermore, the Late Middle Ages showed the almost complete demise of *pagarse* ($N=13$, 4%), which historically favored more concrete entities as stimuli. This absence of *pagarse* left space for a verb form and/or a construction that would exhibit more concrete entities as stimuli. It is then unsurprising that 15th century speakers started making use of the verb *agradar* ($N=25$, 8%) more frequently. *Agradar* predominantly appeared in a DATEXP-NOMSTIM construction ($N=18$, 72%), as in (28a), although it also showed four instances (16%) of the middle voice construction (28b).

- (28) a. *Bien me agrad-a-n tus palabra-s*
 Well DAT.1SG please-PRS-3PL your word.NOM-PL
 'I am quite pleased with your words / I like your words very much'
 (15th c., LC)
- b. *Ojos hay que de lagaña se agrad-a-n*
 eyes.ACC there.are REL of rheum REFL please-PRS-3PL
 'There are eyes that are pleased with rheum'
 (15th c., Corbacho)

While the DATEXP-NOMSTIM construction generally selected stimuli that clustered at the lower end of the Empathy Hierarchy (see (22)), when broken down by the verb it appeared with, this construction predominantly selected for more abstract stimuli when it co-appeared with the verb *placer* (29) and for more concrete entities when it co-appeared with the verb *agradar* (30).

- (29) Stimuli of DATEXP-NOMSTIM constructions with the verb *placer* ($N=95$) in the 15th century:
 NP animate ($N=5$, 5%) > NP physical object ($N=2$, 2%) < NP abstract ($N=4$, 4%) < RC ($N=20$, 21%) = IP ($N=20$, 21%) < CP ($N=44$, 46%)

- (30) Stimuli of DAT_{EXP}-NOM_{STIM} constructions with the verb *agradar* (*N*=18) in the 15th century:
 NP animate (*N*=5, 28%) > NP physical object (*N*=2, 11%) < NP abstract (*N*=7, 39%) > RC (*N*=1, 6%) = IP (*N*=1, 6%) < CP (*N*=2, 11%)

The data surveyed so far testify that there was a tendency for speakers to use two main liking verbs – *placer* and *pagarse* in early medieval Spanish, and *placer* and *agradar* in late medieval Spanish – that showed a clear distribution, since they could be grouped in two different categories of stimuli. While *placer* and *pagarse* differed in both lexical terms and argument structure, *placer* and *agradar* only differed in lexical terms, both sharing the DAT_{EXP}-NOM_{STIM} construction as the most frequent one displayed. Furthermore, this opposition points to finer semantic distinctions between liking verbs in the 15th century, as the lexical entries for each verb seem to be selecting for different types of stimuli. It thus seems that a central parameter triggering variation in argument realization is represented by the inherent properties of the stimulus.

Chart 2 summarizes the main results of the late medieval Spanish period, providing absolute frequencies and which constructions are rising, being maintained, or falling. The information for this chart is taken from Table 7, but only the more frequent constructions are presented in Chart 2.

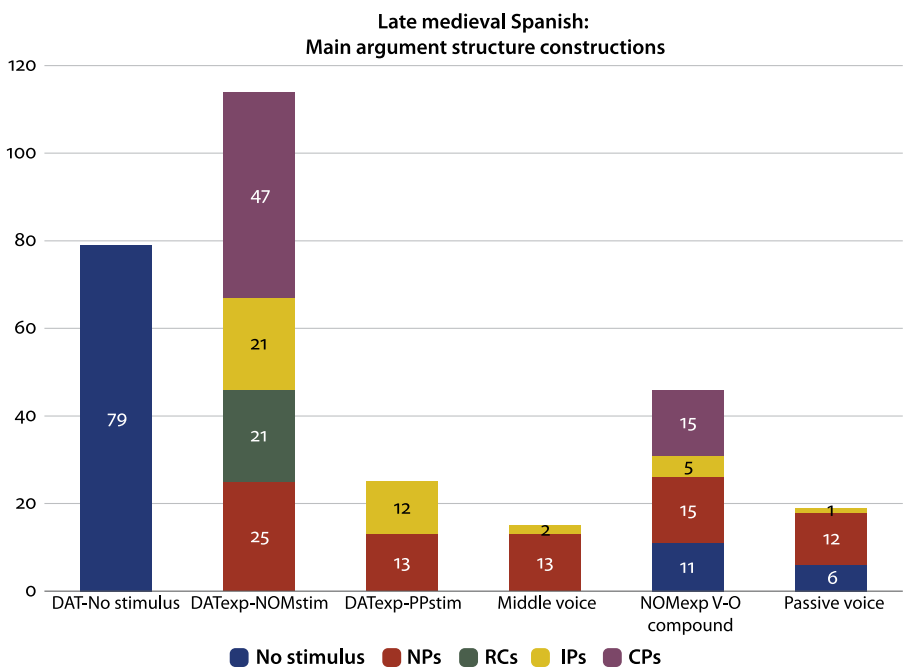


Chart 2. Late medieval Spanish main argument structure constructions

Chart 2 shows that dative-experiencer constructions, taken together (that is, the DATEXP-No stimulus, DATEXP-NOMSTIM, and DATEXP-PPSTIM constructions), were the most frequent ones in late medieval Spanish and could appear with all types of syntactic stimuli. The DATEXP-PPSTIM construction decreased in frequency while the DATEXP-NOMSTIM construction increased in frequency. It is noteworthy that the DATEXP-NOMSTIM pattern now had a more even distribution of syntactic stimuli, compared to data from early medieval Spanish. The DATEXP-NOMSTIM pattern, likewise, was the construction which overwhelmingly appeared with finite subordinate clauses as stimuli (depicted in Chart 2 in green) and the dative-experiencer construction was employed when there was no overt stimulus within the clause (depicted in Chart 2 in blue). Usually, these non-overt stimuli referred to situations, and the dative-experiencer construction allowed for them to not be overtly expressed within the clause, as has been stated previously. Additionally, the distribution of stimuli in the DATEXP-NOMSTIM construction and the nominative-experiencer verb-object compound construction is remarkably similar; however, the dative-experiencer construction was more frequent and more semantically uniform than the nominative-experiencer verb-object compound construction.

7.2.3 Golden Age Spanish

The first examples of the verb *gustar* in the corpus, found in the NOMEXP-PPSTIM construction, appear in my data in the 16th century. Many researchers argue that the later *gustar* construction with a dative experiencer developed by analogy to the older medieval psych-verbs *placer* and *pesar*, which displayed this same argument structure (Melis 1997, 1998, 1999a, 1999b, 2018, Elvira 2006, Vázquez Rozas & Rivas 2007, Batllori 2012, Melis & Flores 2013, 2018). This hypothesis seems implausible because the very infrequent, fossilized DATEXP-NOMSTIM *placer* construction by itself cannot have exerted analogical pressure on the extremely frequent NOMEXP-PPSTIM construction with *gustar*. By the Golden Age, however, speakers knew and used the DATEXP-NOMSTIM *dar gusto* verb-construction pairing (Arg[dat-experiencer] + *dar gusto* ‘give pleasure’ + Arg[nom-stimulus]), as well as the DATEXP-NOMSTIM *ser gusto* verb-construction pairing (Arg[dat-experiencer] + *ser gusto* ‘be of pleasure’ + Arg[nom-stimulus]), both of which displayed a dative experiencer and nominative stimulus. These constructions need to be considered when examining the constructional antecedents of dative-experiencer *gustar*.

I analyze each century of Golden Age Spanish (i.e., the 16th and 17th centuries) separately, and later comment on the overall patterns of this time period.

7.2.3.1 The 16th century

In the data for the 16th century, there are no instances of the verb *pagarse* or of the two constructions in which *pagarse* habitually appeared, namely, the middle voice and the passive voice constructions. In previous centuries, this verb (and consequently, these constructions) showed a preference for stimuli that were higher in the Empathy Hierarchy, that is, nominal and nominal-like categories. Even with the demise of *pagarse*, as well as with the middle and passive voice constructions' fading use, these nominal and nominal-like stimuli still needed to be expressed: the verb *agradar*, which started increasing in frequency in the 15th century and tended to display a DATEXP-NOMSTIM argument structure, filled that gap by showing a preference for nominal and nominal-like categories as stimuli, much like *pagarse*.

At the dawn of the Golden Age, the DATEXP-NOMSTIM construction appeared mainly with *placer*, as in previous centuries. When this construction appeared with the verb *placer* in its verb slot ($N=27$), 89% of *placer* tokens ($N=24$) showed a CP stimulus, all of them situated postverbally, while the remaining three *placer* tokens, with NP stimuli, showed their stimulus in preverbal position. These results indicate that DATEXP-NOMSTIM *placer* became highly specialized for contexts with finite subordinate phrases. *Agradar* also appeared in the verb slot of the DATEXP-NOMSTIM construction, albeit much less frequently ($N=5$). All examples with DATEXP-NOMSTIM *agradar* display nominal stimuli: two object NPs, two abstract NPs, and one NP denoting a situation. Three of these five instances of DATEXP-NOMSTIM *agradar* with NP stimuli placed their stimulus in preverbal position (60%). As was already the case in late medieval Spanish, *placer* and *agradar* were clearly differentiated in the 16th century in terms of the semantic properties of the stimuli with which they appeared, much like *placer* and *pagarse* were differentiated in previous centuries.

- (31) *Pleg-a a Dios que el tiempo me*
 Please.PRS.SBJV-3SG to.DAT God COMPL DET time ACC.1SG
veng-ue de ti
 avenge-PRS.SBJV.3SG from you
 'May it please God that time avenges me from you' (16th c., *Diana*)
- (32) *Parec-e que no le agrad-an tus palabras ni se*
 Seem-PRS.3SG COMPL NEG DAT.3SG like-PRS.3PL your words NEG REFL
satisfac-e de lo que respond-e-s.
 satisfy-PRS.3SG of DET.N.SG REL answer-TV-PRS.2SG
 'It seems that he does not like your words nor is he satisfied with your answers.' (16th c., *Diana*)

The DATEXP-NOMSTIM construction, while appearing with the lexical verb *agradar*, also occurred with the lexically connected (in terms of semantic and phonological features) dative-experiencer verb-object compound with a nominative experiencer: *ser agradable* (Arg[nom-stimulus] + *es agradable* ‘is nice/a pleasure’ + Arg[dat-experiencer]), as in (33). Another similar dative-experiencer verb-object compound arose in the 16th century: *ser gusto* (Arg[nom-stimulus] + *es gusto* ‘is nice/a pleasure’ + Arg[dat-experiencer]). The argument structure construction found with *ser gusto* and *ser agradable* (i.e., Arg[nom-stimulus] + *es agradable/gusto* ‘is nice/a pleasure’ + Arg[dat-experiencer]) is henceforth referred to in this paper as a dative-experiencer verb-object compound construction with *ser*.

- (33) a. *Mas si es verdad, hermosa señora, que mi venida te*
 but if be.PRS.3SG true beautiful lady COMPL my coming DAT.2SG
es agradable, suplic-o=te por lo que
 be.PRS.3SG pleasing beg-PRS.1SG=DAT.2SG for DET.N.SG REL
deb-e-s al gran amor que él te tien-e,
 owe-TV-PRS.2SG to.the.DAT great love REL HE DAT.2SG have.PRS.3SG
que tu respuesta también lo sea
 COMPL your answer also ACC.3SG be.PRS.SBJV.3SG
 ‘But if it’s true, oh beautiful lady, that my arrival is pleasing to you, I beg
 you in the name of all you owe to the great love he feels for you, that your
 answer is [pleasing to me] too’ (16th c., *Diana*)
- b. *Mas cuando tan ameno y fresco valle no es agradable*
 but when such pleasant and fresh valley NEG be.PRS.3SG pleasing
a mis cansados ojos [...]
 to.DAT my tired eyes
 ‘But when such a pleasant and fresh valley is not pleasing to my tired eyes
 [...]’ (16th c., *Diana*)

The dative-experiencer verb-object compound construction with *ser* appears six times in the data for the 16th century: five times with *ser agradable* and one time with *ser gusto*, and all tokens categorically display preverbal nominal stimuli, aligning with the general tendency of *agradar* to appear with stimuli that contained more concrete semantic properties (meaning that they were higher on the empathy cline).

To the best of my knowledge, all accounts dealing with variation between NOMEXP-PPSTIM and DATEXP-NOMSTIM *gustar* do not mention any constructions in which lexically connected verb forms to *gustar* appeared, such as *dar gusto* and *ser gusto*. This point is vital because in my data for the 16th century there are two main liking verb-construction pairings that are lexically connected to each other: (1) the NOMEXP-PPSTIM construction, which always appears with

gustar in its verb slot; and (2) the *dar gusto* construction, which shows a causative reading and displays a dative experiencer and a nominative stimulus, much like DATEXP-NOMSTIM *gustar* does today (34). The *dar gusto* construction has not been explored in terms of how it might have aided in the change of argument structure of nominative-experiencer *gustar* to dative-experiencer *gustar*. The fact remains, however, that the lexeme *gusto* has been found in a dative-experiencer verb-object compound construction that is causative and which conveys the notion of liking/pleasing because *gustar* started having a liking notion, and this should not be disregarded.

- (34) *Dar-á-n=te codazos y rempujones, dir-á-n=te*
 give-FUT-3PL=DAT.2SG elbow.blows and pushes say-FUT-3PL=DAT.2SG
desvergüenzas, cual si tú fue-ra-s ellos, y no más de porque
 impudences as if you be.PST-SBJV-2SG them and NEG more of because
con aquello da-n gusto a su amo
 with that give.PRS-3PL pleasure to.DAT their master
 'They will nudge you and shove you around, they will be impudent to you in
 what they say, as if you were one of them, for the sole reason of pleasing their
 master' (16th c., *GdA*)

NOMEXP-PPSTIM *gustar* constructions ($N=18$) appeared mostly with infinitival subordinate phrases as stimuli, introduced as objects of the preposition *de* 'of' ($N=13$, 72%). Such results suggest that this argument structure was highly specialized for contexts with non-finite subordinate phrases. In this context, *gustar* represented an in-between verb, in the sense that it selected for stimuli that were lower on the empathy cline than nouns, which *agradar* tended to select for, but higher than finite subordinate phrases, which *placer* tended to select for.

The less frequent *dar gusto* construction ($N=7$), contrary to the NOMEXP-PPSTIM construction, does not show a clear preference for one type of stimulus over another within the data, although it does not appear with CPs at all, as reflected in (35). Noteworthy in this respect is that while only four instances of *dar gusto* have an overt stimulus within the clause, the three instances that show NP and RC stimuli do so categorically in a preverbal situation, while the instance that contains an IP stimulus situates it after the verb. This is of particular interest because if we take the notion of end-weight into consideration, one would expect long, complex phrases that display the semantic role of stimulus (such as RCs) to appear post-verbally, yet this is not the case here.

- (35) Stimuli of *dar gusto* constructions in the 16th century:
 NP animate ($N=2$, 29%) > NP physical object ($N=1$, 14%) < NP situation
 ($N=2$, 29%) > RC ($N=1$, 14%) = IP ($N=1$, 14%)

To sum up this section, data for the 16th century reveal the use of a new liking verb, *gustar*, which appeared in two main argument structures, i.e., the NOMEXP-PPSTIM construction and as a nominal form in the *dar gusto* construction. The data point to a lexical entry favoring a different type of stimulus in terms of semantic properties for each of the three main liking verbs: speakers used the verb *agradar* to convey the idea of liking more concrete entities through noun phrases, the verb *placer* to convey the idea of liking situations through finite subordinate phrases, and the verb *gustar* to convey the idea of liking stimuli that were in between those of the other two verbs (that is, non-finite [infinitival] subordinate phrases, which are nominal-like in nature and therefore less abstract than finite subordinate phrases). Alternations in Golden Age liking verbs, just like in medieval Spanish liking verbs, reveal a preference in terms of lexical entries as to the expected inherent properties of the stimulus. Additionally, the data indicate that speakers assigned different word orders to the DATEXP-NOMSTIM construction for syntactic reasons: of all overtly-stated stimuli within the clause in all DATEXP-NOMSTIM verb-construction pairings (that is, DATEXP-NOMSTIM *placer*, *agradar*, *dar gusto*, *ser gusto*, and *ser agradable* constructions), noun phrase stimuli were predominantly found in preverbal position ($N=12$, 86% of all NP stimuli), and infinitival stimuli and finite subordinate clause stimuli were categorically found in postverbal position ($N=25$). Meanwhile, the NOMEXP-PPSTIM *gustar* construction largely showed a fixed word order with the stimulus in postverbal position ($N=17$, 94%), pointing to a construction that did not make syntactic distinctions in terms of the stimuli it appeared with, so that the DATEXP-NOMSTIM construction proved to be more nuanced in terms of making distinctions between syntactic categories of stimuli than the NOMEXP-PPSTIM construction.

7.2.3.2 *The 17th century or, analogical extension through a multiplicity of source constructions*

During the 17th century, relative frequencies for *agradar*, *ser agradable*, and *placer* decreased drastically, while use of the verb *gustar*, together with the lexically connected dative-experiencer verb-object compounds *dar gusto* and *ser gusto*, increased exponentially, as can be seen in Table 9 below, which shows the three latter verb forms (i.e., *gustar*, *dar gusto*, and *ser gusto*) subsumed under the verb category ‘gustar.’

The verb *placer* almost completely disappeared as a liking verb in the 17th century, while in the 16th century it was still used frequently to convey an idea of liking less concrete entities and, more generally, finite subordinate clauses. Melis (2018) partly attributes *placer*’s demise to the fact that the verb developed such a close relationship with the idea of God’s will that it pulled away from the semantic field of human pleasure and desire. More precisely, Melis shows that toward

Table 9. Absolute and relative frequencies for the lexical verbs *agradar*, *gustar*, and *placer* and their lexically connected verb forms in the Spanish Golden Age

Lexical verb	Verb form varieties	16th century		17th century	
		Absolute frequency	Relative Frequency	Absolute frequency	Relative Frequency
<i>Agradar</i>	<i>agradar</i>	8	10%	25	8%
	<i>ser agradable</i>	5	6%	0	0%
	Total	13	16%	25	8%
<i>Placer</i>	<i>placer</i>	33	41%	25	8%
	Total	33	41%	25	8%
<i>Gustar</i>	<i>gustar</i>	26	33%	157	52%
	<i>ser gusto</i>	1	1%	23	8%
	<i>dar gusto</i>	7	9%	73	24%
	Total	34	43%	253	83%
Total		80	100%	303	100%

the end of the Middle Ages, the frequency of *placer* with the meaning of ‘willingness’ increased from 36% to 63%, as did its association with God, increasing from 29% to 43%. By the 18th century, Melis finds only 31 examples of *placer* in a total of 11 literary works, and 90% of these tokens pertain to God’s will. The present data corroborate Melis’s findings, as the totality of the DATEXP-NOMSTIM *placer* examples ($N=13$) has God as the experiencer. Having said this, the data also show that all these tokens contained a finite subordinate clause headed by *que* as their stimulus, pointing to the DATEXP-NOMSTIM *placer* construction having become fossilized as a means to convey the idea of God being pleased with a specific situation. In Goldberg’s (2013) terms, this construction became a partially lexically filled linguistic pattern.

The verb *agradar* also reduced its relative frequency by half, from 16% to 8%. It now displayed a vast array of constructions, meaning it did not necessarily tend to appear with a specific argument structure. It did, however, show a propensity to appear with nominal stimuli: out of the 25 tokens of *agradar* in the 17th century, 21 (84%) appear with nominal stimuli.

17th-century speakers predominantly used NOMEXP-PPSTIM *gustar* and the lexically connected verbal form *dar gusto* to convey the idea of liking. Indeed, their combined use almost doubled in frequency from the 16th century to the 17th century (from 43% to 82%). The lexically similar verbal form *ser gusto* also appears in the data, but with less frequency. The NOMEXP-PPSTIM construction and the

dar gusto construction differed in the semantic properties of the stimuli with which they appeared; however, both generally selected for nominal or nominal-like stimuli. (36) and (37) offer the different types of stimuli these constructions select within the data. It must be noted that 18% of *dar gusto* construction tokens ($N=13$) appear without an overt stimulus in the clause, while all NOMEXP-PPSTIM construction tokens appear with an overt stimulus.

- (36) Stimuli of the NOMEXP-PPSTIM constructions in the 17th century:
 NP animate ($N=7$, 7%) < NP physical object ($N=14$, 14%) < NP abstract
 ($N=19$, 18%) > NP situation ($N=10$, 10%) > RC ($N=2$, 2%) < IP ($N=49$, 47%)
- (37) Stimuli of *dar gusto* constructions in the 17th century:
 NP animate ($N=33$, 45%) > NP physical object ($N=8$, 11%) > NP abstract
 object ($N=7$, 9%) > RC ($N=2$, 3%) < IP ($N=10$, 14%)

The *dar gusto* construction generally selected animate nouns as stimuli, which are situated on the higher end of the empathy cline. This is unsurprising given the causative structure of *dar gusto*. Meanwhile, the NOMEXP-PPSTIM construction overwhelmingly had appeared with IPs as objects of the preposition. This type of stimulus is on the lower end of the cline. These findings are in line with Goldberg's (1995) psychological principles of language organization and with the principle of no synonymy, which states that if two constructions are syntactically distinct, they must also be semantically or pragmatically distinct. The newer and less frequent *ser gusto* construction, however, did not clearly seem to favor one type of stimulus over another, as shown in (38). There is also one token of the *ser gusto* construction for this century that does not contain an overt stimulus within the clause. Additionally, the appearance of CPs with *gustar* and the lexically connected verb forms *dar gusto* and *ser gusto* was extremely infrequent, contrary to what took place with the verb *placer*, as can be gauged from (36)–(38).

- (38) Stimuli of *ser gusto* constructions in the 17th century:
 NP animate ($N=3$, 13%) < NP physical object ($N=4$, 17.5%) = NP abstract
 object ($N=4$, 17.5%) > NP situation ($N=2$, 9%) > RC ($N=1$, 4%) < IP ($N=5$,
 22%) > CP ($N=3$, 13%)

I have discussed that in the 16th century the DATEXP-NOMSTIM construction allowed for syntactic distinctions regarding the stimulus placement within the clause (see Section 7.2.3.1). This trend continued in the 17th century. DATEXP-NOMSTIM *placer* occurs 13 times in the data, and all instances reveal a postverbal CP as stimulus. DATEXP-NOMSTIM *agradar* occurs 11 times and always with a nominal stimulus, still tending to appear with nouns in preverbal

position ($N=8$, 72% of all NPs). *Dar gusto* often displays the stimulus postverbally when co-occurring with IPs as stimuli ($N=9$, 90% of all IPs), and preverbally when occurring with expressed nominal stimuli ($N=20$, 80% of all expressed NPs). It does not seem merely coincidental that the *ser gusto* construction in the 17th century almost always appears with the stimulus in preverbal position when the stimulus is an expressed NP ($N=9$, 90%), and always appears with the stimulus in postverbal position when the stimulus is either an infinitival clause or a finite subordinate clause ($N=8$). This shows that speakers assign different word orders to the same construction for syntactic reasons. Finally, the NOMEXP-PPSTIM construction mainly co-occurred with an IP as the object of the preposition in the Golden Age, but it showed a fixed word order where stimuli, regardless of their syntactic category, predominantly appeared postverbally ($N=49$, 96%).

The *chi*-square test for type of syntactic stimulus (IPs and CPs in one category, and NPs and RCs in another) and placement in respect to the verb for Golden Age Spanish (16th and 17th centuries taken together) indicates that their relationship is significant ($p > .001$). For this test, all expressed subjects (all overt stimuli within the clause) for the two lexical verbs found in the DATEXP-NOMSTIM construction — *agradar* and *placer* — as well as the three verb-object compounds found in this same construction — *dar gusto*, *ser gusto*, and *ser agradable* — were taken into consideration. In line with findings for the 13th, 14th, and 15th centuries, the role of the length of the constituents does not seem to influence the situation of the stimulus with respect to the verb, as evidenced by relative clauses tending to appear preverbally.

Considering these data, we must discuss previous accounts of constructional change, because the Spanish Golden Age offered more than just one DATEXP-NOMSTIM liking verb-construction pairing that might have served as a model for analogical extension of nominative-experiencer *gustar*, pointing to the extension of the DATEXP-NOMSTIM pattern through a multiplicity of source constructions. Thus, the claim by various researchers that dative-experiencer *gustar* developed solely by analogy to the older medieval psych-verbs *placer* and *pesar* seems unsatisfactory for various reasons, which will be further addressed in the paragraphs directly below.

First, let us recall that analogy depends upon the recognition of similarity, where less frequent structures will tend to adapt themselves to more frequent types, if there are enough similarities between them, either in form or function or both (Fischer 2013). Thus, the hypothesis that *gustar* changed from having a nominative experiencer to having a dative experiencer due to analogical pressure from the construction with dative-experiencer *placer*, proves problematic because

by the 17th century *placer* was considerably less frequent than NOMEXP-PPSTIM *gustar* ($N=13$ for *placer*, $N=103$ for *gustar*).

Additionally, there is no syntactic similarity between DATEXP-NOMSTIM *placer* and NOMEXP-PPSTIM *gustar*, because the experiencers in both constructions display different syntactic functions (indirect object and subject, respectively), as do the stimuli (subject and prepositional object, respectively). Nor can we conclude that there are any syntactic or semantic similarities between the stimuli of DATEXP-NOMSTIM *placer* and NOMEXP-PPSTIM *gustar*. DATEXP-NOMSTIM *placer* always appears with CPs as stimuli, while the object of the preposition in NOMEXP-PPSTIM *gustar* mainly displays IP as stimuli ($N=49$, 48%), only displaying CPs as stimuli 2% of the time ($N=2$). I can therefore say with some confidence that syntactic and semantic similarities regarding type of stimulus are null. Moreover, if we look at the semantic traits in terms of experiencers for both constructions, as can be gauged from Table 10 below, while most NOMEXP-PPSTIM *gustar* experiencers are indeed third person ($N=65$, 63%), all of them are human, meaning that none of them are God. On the contrary, all experiencers with DATEXP-NOMSTIM *placer* are third person ($N=13$) and all have God as the experiencer. Even the only instance of a third-person plural experiencer (versus the 12 instances of third-person singular experiencers) refers to God, through a metaphorical use of *los altos cielos* ‘the High Heavens.’ The full example is presented in (39) below.

- (39) *plug-uie-ra* *a* *los altos cielos* *que* *el amor no*
 please.PST-TV-SBJV.3SG to.DAT DET high heavens COMPL DET love NEG
me *tuv-ie-ra* *tan rendido* *y* *tan sujeto* *a sus leyes*
 ACC.1SG have.PST-TV-SBJV.3SG so surrendered and so subjected to its laws
 ‘May the High Heavens have wanted/may it had pleased the High Heavens
 that love didn’t have me so surrendered and subjected to its laws’
 (17th c., DQ., part 1)

It can be concluded then that both the distribution in terms of grammatical person and the semantic properties of the experiencers are different.²²

The differences between both verb-construction pairings do not end there. If we compare the position of the stimulus and experiencer in relation to the verb, the argument structures also pattern differently. While NOMEXP-PPSTIM *gustar* usually appears without an overt subject (with a pro-drop subject, $N=54$,

22. The position of experiencers in general falls outside the scope of this paper. The reason why I am briefly discussing the position of the experiencer here is to stress that DATEXP-NOMSTIM *placer* had become a fossilized verb-construction pairing that only appeared with God as its experiencer.

Table 10. Experiencers of NOMEXP-PPSTIM *gustar* and DATEXP-NOMSTIM *placer* in the 17th century*

Experiencer number	NOMexp-PPstim <i>gustar</i>		DATexp-NOMstim <i>placer</i>	
	Number of tokens	Percentage	Number of tokens	Percentage
First person SG. (<i>yo</i>)	20	19%	0	0%
Second person SG. (<i>tú</i>)	14	14%	0	0%
Third person SG. (<i>él, usted</i>)	40	39%	12	92%
First person PL. (<i>nosotros</i>)	1	1%	0	0%
Second person PL. (<i>vos, vosotros</i>)	1	1%	0	0%
Third person PL. (<i>ellos, ustedes</i>)	25	24%	1	8%
Impersonal	2	2%	0	0%
Total	103	100%	13	100%

*I have treated *usted* and *ustedes* as third person because they use third-person verb forms. This categorization does not affect the numbers. In my data, *vuestra merced* ‘your mercy’ (the 17th c. version of *usted*) appears three times, and *vuestras mercedes* ‘your mercies,’ its plural version, once.

52%), when the subject is expressed it is generally preverbal ($N=30$, 29%). On the other hand, DATEXP-NOMSTIM *placer* almost always appears with the experiencer overtly expressed after the verb ($N=12$, 92%).

There are some similarities between the two verb-construction pairings, however. One similarity is that the stimulus of nominative-experiencer *gustar* tends to appear after the verb ($N=88$, 85%), while the stimulus of dative-experiencer *placer* always appears postverbally. The fact that all stimuli in my data for dative-experiencer *placer* in the 17th century are placed in postverbal position is not surprising, because these stimuli are CPs, which show a tendency to appear postverbally in DATEXP-NOMSTIM constructions. Another similarity is that both verbs’ grammatical aspects are usually imperfective ($N=89$, 86% for *gustar* and $N=13$, 100% for *placer*).²³ Having said this, 17th-century speakers seemed to employ the verb *placer* in a fixed order (verb + indirect object [God] + stimulus [CP]), in which the experiencer was always God and the stimulus always a finite

23. The prominence of the imperfective aspect throughout the data is to be expected, as we are dealing with stative verbs that convey a mental state. In this same line, previous studies, such as Miglio et al. (2013: 275), indicate that psych-verbs, since they are atelic, typically favor present and imperfect tenses.

subordinate clause (40), suggesting that the DATEXP-NOMSTIM construction with *placer* had become fossilized by this century. It is extremely unlikely that such an infrequent, semantically and syntactically different construction from NOMEXP-PPSTIM *gustar* could have exerted such analogical pressure on NOMEXP-PPSTIM *gustar* as to make it change its argument structure.

- (40) *Plug-uir-a* *a* *Dios hub-ie-ra* *yo* *sido*
please.PST-TV-SBJV.3SG to.DAT God have.PST-TV-SBJV.1SG NOM.1SG be.PTCP
cuerda y sup-ie-ra *agradec-e-r* *este amor*
sane and knew.PST-TV-SBJV.1SG thank-TV-INF this love
'May God have wanted/may it had pleased God that I had been sane and
knew how to be thankful for this love' (17th c., NAE)

Having addressed the issue of how dative-experiencer *gustar* cannot have developed only by analogy to the older medieval psych-verb *placer*, I now tackle the related question of what the available evidence for analogical change among the different argument structures of liking verbs is. To answer this, frequency data from the Golden Age proves crucial by determining if and how other constructions exerted analogical pressure on NOMEXP-PPSTIM *gustar*, as will be further discussed in the paragraphs below.

From the 16th to the 17th century, the dative-experiencer verb-object compound constructions *ser gusto* and *dar gusto* greatly increased in frequency (see Tables 10–12). While in the 17th century, NOMEXP-PPSTIM *gustar* was the most frequent verb-construction pairing ($N=103$, frequency per 10,000 words: 1.11), taken in combination, dative-experiencer constructions were used more frequently than NOMEXP-PPSTIM *gustar* in conveying the idea of liking ($N=131$, frequency per 10,000 words: 1.22). Moreover, the noun *gusto* itself, which is lexically connected to *gustar* in terms of both semantic and phonological features, appeared as the object of the light verb in two verb-object compound constructions with dative experiencers: *dar gusto* and *ser gusto*.

Table 11. Token frequencies of *dar gusto*, *ser gusto*, DATEXP-NOMSTIM + lexical verb, DATEXP-No stimulus + lexical verb, and NOMEXP-PPSTIM constructions by century

Century	13th c.	14th c.	15th c.	16th c.	17th c.
<i>Dar gusto</i> V-O compound	0	0	0	7	73
DATexp-NOMstim	37	51	114	32	24
DATexp-No stimulus	58	36	79	2	11
<i>Ser gusto</i> V-O compound	0	0	0	1	23
NOMexp-PPstim	2	1	0	18	103

Table 12. Frequency per 10,000 words of *dar gusto*, *ser gusto*, DATEXP-NOMSTIM + lexical verb, DATEXP-No stimulus + lexical verb, and NOMEXP-PPSTIM constructions by century

Century	13th c.	14th c.	15th c.	16th c.	17th c.
<i>Dar gusto</i> V-O compound	0	0	0	0.19	0.79
DATexp-NOMstim	2.40	3.88	2.75	0.87	0.26
DATexp- No stimulus	3.76	2.74	1.90	0.05	0.12
<i>Ser gusto</i> V-O compound	0.00	0.00	0.00	0.02	0.25
NOMexp-PPstim	0.13	0.08	0.00	0.49	1.11

Following Hilpert (2013), change in the relative frequencies of different alternatives may indicate that one argument structure is becoming the default choice, while the other is falling out of use. This situation can be observed in Tables 11 and 12, where the DATEXP-NOMSTIM construction with *placer* is falling out of use, yet both the NOMEXP-PPSTIM construction and the dative-experiencer constructions with *ser gusto* and *dar gusto* increase their frequencies of use.²⁴ Some constructions that belong to the same class or category are said to be more important than others because they are more frequent in usage and therefore more entrenched (Geeraerts 2010). Thus, the higher type frequency of the DATEXP-NOMSTIM construction (which appeared with four verbal forms in this time period: *agradar*, *placer*, *dar gusto*, and *ser gusto*) over the NOMEXP-PPSTIM construction (which only appeared with the verb *gustar*) would make the DATEXP-NOMSTIM construction the more productive one of the two, in terms of how likely it was to occur with a novel item (Bybee 1995, Bybee & Thompson 2000, Barðdal 2008).

In the specific case of analogy among DATEXP-NOMSTIM *placer*, *agradar*, *dar gusto*, and *ser gusto*, and NOMEXP-PPSTIM *gustar*, the similarities among constructions are manifold. First, the *dar gusto* construction and the *ser gusto* construction show lexical connections to *gustar* in that words, which contain both semantic and phonological features, set up relations to other words according to shared features (Bybee 1988). As Bybee argues, the semantic representation of one word can partially map onto another word, which can be represented as proximity in the lexicon. This seems to be the case with the noun *gusto* in the dative-experiencer verb-object compounds *dar gusto* and *ser gusto*, and the verb *gustar*.

24. There are no instances in the data for the *ser agradable* verb-object compound in the 17th c., so that the only dative-experiencer verb-object compound construction with *ser* for this century is *ser gusto*.

The pair *gusto* and *gustar* have a similar semantic relation since they share features common to the idea of pleasure and liking, and because NOMEXP-PPSTIM *gustar* shows stimuli that are semantically similar to those of both *ser gusto* and *dar gusto*. In addition, some connections exist between their phonological representations since they share an initial consonant /g/, a back vowel /u/, a sibilant consonant /s/, and a dental consonant /t/ followed by a [different] vowel, in that order. Sets of connections such as those between *gusto* and *gustar* “are the basis of morphological relations, for morphological relations are semantic and phonological relations that run in parallel,” and thus, morphological identity can be established (Bybee 1988: 127). Regarding similarities between DATEXP-NOMSTIM *placer*, *agradar*, and NOMEXP-PPSTIM *gustar*, these similarities are semantic, in that all verbs share a meaning of ‘pleasure’ and ‘liking’, and, furthermore, NOMEXP-PPSTIM *gustar* shows stimuli that are semantically similar to those of both DATEXP-NOMSTIM *placer* and *agradar*. The fact that DATEXP-NOMSTIM *placer*, *agradar*, *dar gusto*, and *ser gusto* show constructional and semantic similarities (all display an experiencer indirect object and a stimulus subject) must have aided in strengthening this construction as the preferred one for conveying the idea of liking, making *gustar* susceptible to analogical extension due to semantic and phonological similarities. A visual representation of this explanation is provided in Figure 1.

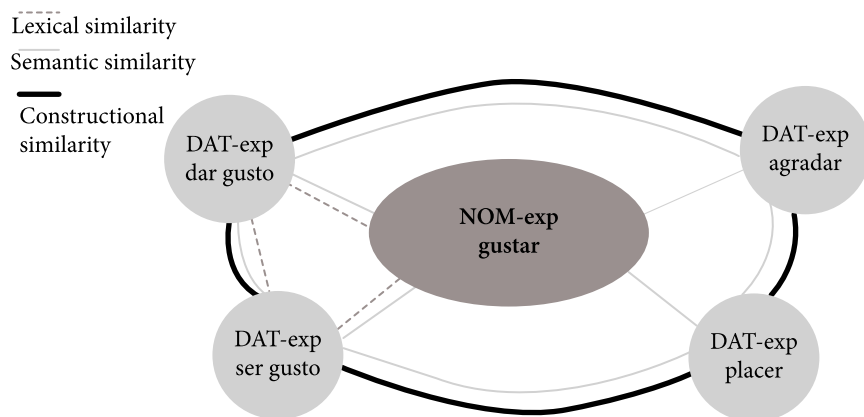


Figure 1. Similarities among constructions

In sum, I believe that analogical extension through a multiplicity of source constructions took place with DATEXP-NOMSTIM *placer*, *agradar*, *dar gusto*, and *ser gusto*, and NOMEXP-PPSTIM *gustar*. The DATEXP-NOMSTIM construction (with all lexical verbs and verb-object compounds, that is, with *agradar*, *placer*, *dar gusto*, and *ser gusto*) appeared more frequently and showed a higher

degree of constructional persistence than the NOMEXP-PPSTIM construction. The DATEXP-NOMSTIM construction, moreover, had ampler subcategorizing properties and showed a wider variety of stimuli in terms of its semantic properties than the NOMEXP-PPSTIM construction in the 17th century. Finally, the DATEXP-NOMSTIM construction provided speakers with the possibility to assign a different word order to said construction depending on the syntactic category of the stimulus, while the NOMEXP-PPSTIM construction did not allow for this syntactic distinction. All these properties of the DATEXP-NOMSTIM construction may indeed have made it more attractive to speakers — who form generalizations based on instance-based knowledge (Goldberg 2006) — to express the idea of liking, so that while my data does not support the view that DATEXP-NOMSTIM *placer* exerted by itself analogical pressure on NOMEXP-PPSTIM *gustar*, a hypothesis of all DATEXP-NOMSTIM constructions exerting analogical pressure on NOMEXP-PPSTIM *gustar* indeed seems plausible. One can therefore speak of analogy where the most frequent and semantically uniform liking argument structure construction (namely, the DATEXP-NOMSTIM construction containing a liking verb) generalizes for *gustar*. The paradigm is, then, something that can be termed “the paradigm of psych-verbs that express preference for/liking something or someone” (Patricia Amaral, personal communication, July 2018).

Chart 3 summarizes the main results of the Golden Age Spanish period which have been discussed throughout this section. It provides absolute frequencies and which constructions are rising, being maintained, or falling. The information for this chart is taken from Table 7, but only the more frequent constructions are presented in Chart 3.

Observing Chart 3, one can see that dative-experiencer constructions, taken together (that is, the DATEXP-NOMSTIM construction, the dative-experiencer verb-object compound construction with *ser*, and the *dar gusto* construction), were the most frequent ones and could appear with all types of syntactic stimuli, whereas the NOMEXP-PPSTIM construction almost always subcategorized for NPs and IPs as objects of the preposition. Importantly, the DATEXP-NOMSTIM construction was the construction that overwhelmingly appeared with finite subordinate clauses as stimuli (depicted in Chart 3 in green), which other constructions did not easily seem to accept due to the subcategorization properties of the preposition introducing the stimulus (usually *de* ‘of’), as has been previously discussed in Mojedano Batel (2020). This is an essential point because, as illustrated in Table 7, finite subordinate clauses add up to a sizable amount of all overt stimuli within the clause, and only the DATEXP-NOMSTIM schema could appear with all types of syntactic stimuli, including CPs, whereas the NOMEXP-PPSTIM construction was precluded from appearing with CPs as stimuli.

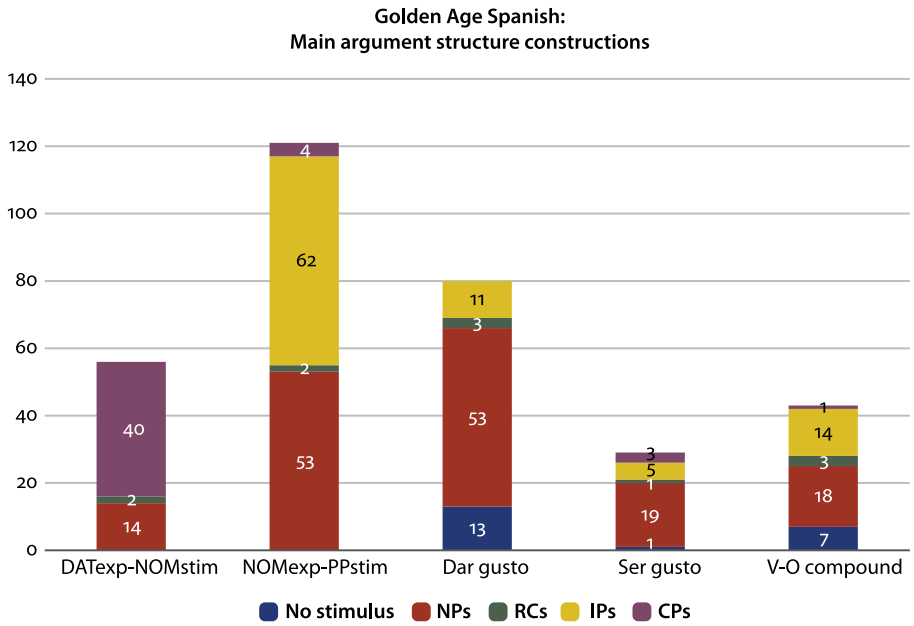


Chart 3. Golden Age Spanish main argument structure constructions

7.2.4 Modern Spanish

I now proceed to analyze each century of Modern Spanish (i.e., the 18th and 19th centuries) separately.

7.2.4.1 The 18th century

During the 18th century, two lexical verbs occurred in the DATEXP-NOMSTIM construction: *gustar* and *agradar*. Both verbs mostly selected for nominal or nominal-like stimuli, yet some differences emerge from the data: only *agradar* appeared with animate NP and RC stimuli, and only *gustar* appeared with CP and IP stimuli. The fact that it was *gustar* which subcategorized for stimuli with more abstract features may have been pivotal in helping *gustar* surpass *agradar* as the main liking verb.

- (41) Stimuli of DATEXP-NOMSTIM *gustar* constructions in the 18th century:
NP object ($N=12$, 60%) > NP abstract ($N=5$, 25%) > IP ($N=2$, 10%) > CP ($N=1$, 5%)
- (42) Stimuli of DATEXP-NOMSTIM *agradar* constructions in the 18th century:
NP abstract ($N=10$, 50%) > NP animate ($N=7$, 35%) > NP object ($N=2$, 10%) > RC ($N=1$, 5%)

Additionally, speakers continued assigning different word orders to the same construction depending on syntactic reasons, as was the case in all previous time periods under study. The DATEXP-NOMSTIM construction with *gustar* always appeared with the stimulus in postverbal position when the stimulus was either an infinitival clause or a finite subordinate clause ($N=3$) but showed variation when the stimulus was an NP. Specifically, while six tokens of DATEXP-NOMSTIM *gustar* appeared with NP stimuli in postverbal position, the remaining nine tokens with NP stimuli appeared where they had historically tended to have been placed, that is, in preverbal position. The remaining two DATEXP-NOMSTIM *gustar* tokens displayed a pro-drop subject. The stimuli of DATEXP-NOMSTIM *agradar*, which were mostly NPs with one RC, followed this same trend: five tokens appeared with their NP stimuli in postverbal position, and the remaining nine tokens, including the one with an RC stimulus, displayed their stimuli where they had historically tended to have been placed, that is, in preverbal position. The remaining six DATEXP-NOMSTIM *agradar* tokens had a pro-drop subject. Example (43a) offers a sample of the DATEXP-NOMSTIM *gustar* verb-construction pairing, while (43b) provides an example of the DATEXP-NOMSTIM *agradar* verb-construction pairing.

- (43) a. *un hábito bien pues-to en una mujer me gust-a mucho*
 DET habit well put.on-PTCP in DET woman DAT.1SG like-PRS.3SG much
 'I really like a well-fitting religious habit in a woman' (18th c., FG)
- b. *Cada día me agrad-a más la noticia de la continuación de tu*
 Each day DAT.1SG like-3SG more the news of the continuation of your
amistad con Gazel, mi discípulo.
 friendship with Gazel my disciple
 'With each passing day, I increasingly like the news of your ongoing
 friendship with Gazel, my disciple' (18th c., *Cartas*)

Two verb-object compounds occurred in the DATEXP-NOMSTIM construction in the 18th century: *ser gusto* and *dar gusto*. These two verb-construction pairings also allowed for syntactic distinctions within the construction regarding their stimuli. The *ser gusto* construction generally appeared with the stimulus in preverbal position when the stimulus was an overtly stated NP ($N=2$, 67% of all overt NPs), and always appeared with the stimulus in postverbal position when the stimulus was either an infinitival clause or a finite subordinate clause ($N=9$). Likewise, the *dar gusto* construction showed a tendency to appear with a preverbal stimulus when the stimulus was an overtly expressed NP ($N=7$, 78% of all overt NPs), although the only token with an RC stimulus is postverbal. Having said this, the *dar gusto* construction always appeared with the stimulus in postverbal position when the stimulus was either an infinitival clause or a finite subordi-

nate clause ($N=2$). This demonstrates that speakers continued assigning different word orders to the same construction for syntactic reasons.

Further, by the 18th century, the *ser gusto* construction subcategorized for IPs at an almost equal frequency as nominative-experiencer *gustar* (35% and 36%, respectively). As has been mentioned previously, Goldberg's (1995) principle of no synonymy posits that if two constructions are syntactically distinct, they must be semantically or pragmatically distinct. The fact that both constructions subcategorized for IPs at an almost equal frequency indicates that semantic and syntactic distinctions were being lost, which must have further aided in the change in argument structure from nominative-experiencer *gustar* to dative-experiencer *gustar*.

Going back in time, let us remember that the medieval verb *pagarse* showed a preference for more concrete (more nominal) entities in medieval times, whereas the medieval verb *placer* showed a clear preference for abstract entities as well as for finite subordinate phrases. In this way, because *pagarse* disappeared earlier than *placer*, it made sense that *agradar*, which appeared before *gustar*, took its place. For a few centuries, the two liking verbs *gustar* and *agradar* co-existed where their subcategorization tendencies were delimited to a certain extent. Once these subcategorization tendencies started to overlap, *gustar* prevailed over *agradar* and *placer* due to its greater frequency and its ability to co-appear with more semantic and syntactic types of stimuli.

7.2.4.2 The 19th century

The *dar gusto* construction decreased in use from the 18th to the 19th century (see Tables 10–12). This causative structure seemed to highly favor IPs as stimuli ($N=7$, 64%, as seen in (44)) in the 19th century, while in previous time periods IP stimuli had been preferred by the NOMEXP-PPSTIM *gustar* verb-construction pairing. Before the 19th century, the *dar gusto* construction tended to select for animate stimuli. This shift points to the ability of the causative construction *dar gusto* to now appear with any type of stimulus, even finite subordinate clauses. This potentially indicates that *dar gusto* lost some of its causative value and thus became redundant, as there were other *gustar* structures that could also convey the idea of liking something.

- (44) *Da-ba gusto ver la limpieza de su ropa*
 Give-PST.3SG pleasure to.see.INF DET cleanliness of his clothes
 'It was pleasing to see how clean his clothes were' (19th c., *FyJ*)

The two lexical verbs that instantiated the DATEXP-NOMSTIM construction in the 19th century were *gustar* and *agradar*. These verbs differed in their frequencies since *gustar* had increased exponentially in frequency from the previous century ($N=76$ vs. $N=20$, respectively). Examples (45) and (46) below offer the reader a breakdown of the types of stimuli that each of these two verbs appeared with.

- (45) Stimuli of DAT_{EXP}-NOM_{STIM} *gustar* constructions in the 19th century:
NP object ($N=22$, 29%) > IP ($N=19$, 25%) > NP abstract ($N=17$, 22%) > NP animate ($N=13$, 17%) > CP ($N=3$, 4%) > NP situation ($N=2$, 3%)
- (46) Stimuli of DAT_{EXP}-NOM_{STIM} *agradar* constructions in the 19th century:
NP abstract ($N=9$, 39%) > NP animate ($N=6$, 26%) > IP ($N=3$, 13%) > NP object ($N=2$, 9%) > NP situation ($N=1$, 4%) > RC 1 ($N=1$, 4%) > CP 1 ($N=1$, 4%)

During the 19th century, speakers continued assigning different word orders to the same construction for semantic and syntactic reasons, although the path to a fixed [dative experiencer + verb + nominative stimulus] word order seemed to be advancing. More specifically, the DAT_{EXP}-NOM_{STIM} construction with *gustar* almost always appeared with the stimulus in postverbal position when the stimulus was either an infinitival clause or a finite subordinate clause ($N=21$, 95%) but showed variation when the stimulus was an NP. While 17 DAT_{EXP}-NOM_{STIM} *gustar* tokens appeared with their NP stimuli in preverbal position, the remaining 30 tokens with NP stimuli appeared in postverbal position, which indicated a change in tendencies from the previous century. DAT_{EXP}-NOM_{STIM} *agradar* also maintained this syntactic distinction of stimuli through word order: IP and CP stimuli tended to appear postverbally ($N=3$, 75%), while NP and RC stimuli tended to appear preverbally ($N=15$, 83%). Out of the two verb-object compounds that exhibited a DAT_{EXP}-NOM_{STIM} construction in earlier times (that is, *dar gusto* and *ser gusto*), *dar gusto* always appeared with IP and CP stimuli placed after the verb ($N=7$) and with most NP stimuli situated before the verb ($N=2$, 67%), again making syntactic distinctions with regard to stimuli. There are no *ser gusto* instances in the 19th century data.

The *chi*-square test for stimulus type (IPs and CPs in one category, and RCs and NPs in another) and placement in respect to the verb for the Modern Spanish period (with data from the 18th and 19th centuries) indicates that their relationship is significant ($p > .001$). For this test, all overtly expressed subjects (all overt stimuli within the clause) for all verb forms found in the DAT_{EXP}-NOM_{STIM} construction – *agradar*, *gustar*, *dar gusto* and *ser gusto* – were taken into consideration. These results are in line with findings for all previous time periods in the corpus, showing that the role of the length of the constituents does not seem to affect the situation of the stimulus with respect to the verb, as demonstrated by the tendency of relative clauses to be placed preverbally. Chart 4 below offers the reader a summary of the main results for all time periods under analysis regarding the placement of the stimulus with respect to the verb in all DAT_{EXP}-NOM_{STIM} constructions.

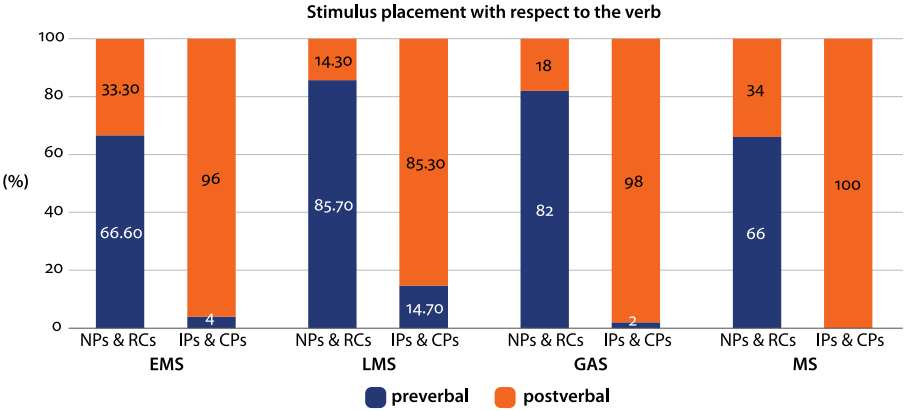


Chart 4. Stimulus placement with respect to the verb for EMS, LMS, GAS, and MS for DATEXP-NOMSTIM constructions

NOMEXP-PPSTIM constructions in the 19th century always appeared with the verb *gustar* and were predominantly found with IP stimuli as the object of the preposition ($N=21$, 60%). Nominative-experiencer *gustar* now occurred more frequently without an overt stimulus ($N=44$) than with a stimulus in the phrase ($N=35$), a situation that differed from what took place in the 18th century. The omission of the stimulus with NOMEXP-PPSTIM *gustar* changed the meaning of the verb *gustar* from ‘liking’ to ‘wanting’, as in (47). Examples such as (47) were very common in the 19th century:

- (47) *Pued-e usted copi-a-r=las, o qued-a-r=se con el*
can-PRS.3SG you copy-TV-INF=ACC.3PL or stay-TV-INF=REFL with the
tarjetero, si gust-a
card.holder, if like-PRS.3SG
‘You can copy them, or keep the card holder, if you want to’ (19th c., *Insolación*)

The increase in frequency of nominative-experiencer *gustar* with no overt stimulus is vital to explaining the demise of NOMEXP-PPSTIM *gustar*. Throughout the history of Spanish, the verb-construction pairing of nominative-experiencer *gustar* with no overt stimulus was very infrequent, with usage rates in between 1% and 14% of all liking constructions across time periods. Speakers had to overtly state the stimulus if they wanted to convey an idea of liking and not one of wanting. If speakers left out the stimulus, the meaning of *gustar* effectively changed to ‘wanting’, which is the reading we find in (47) above. I hypothesize that the need to always state a stimulus to express liking could have aided in the fall of NOMEXP-PPSTIM *gustar* because the moment the stimulus was omitted the verb changed its meaning from ‘liking’ to ‘will’ or ‘want’, which could lead to confu-

sion. Using DATEXP-NOMSTIM *gustar* allowed the speaker to omit the stimulus within the clause if said stimulus had been mentioned previously in the discourse, while NOMEXP-PPSTIM *gustar* never allowed for this possibility.

Chart 5 synthesizes the main results of the Modern Spanish period which have been discussed throughout this section. It offers absolute frequencies and which constructions are rising, being maintained, or falling. The information for this chart is taken from Table 7, but only the more recurrent constructions are presented in Chart 5, where we can observe that the DATEXP-NOMSTIM construction vastly increased in frequency from the Golden Age, while NOMEXP-PPSTIM *gustar* was infrequently produced by speakers.

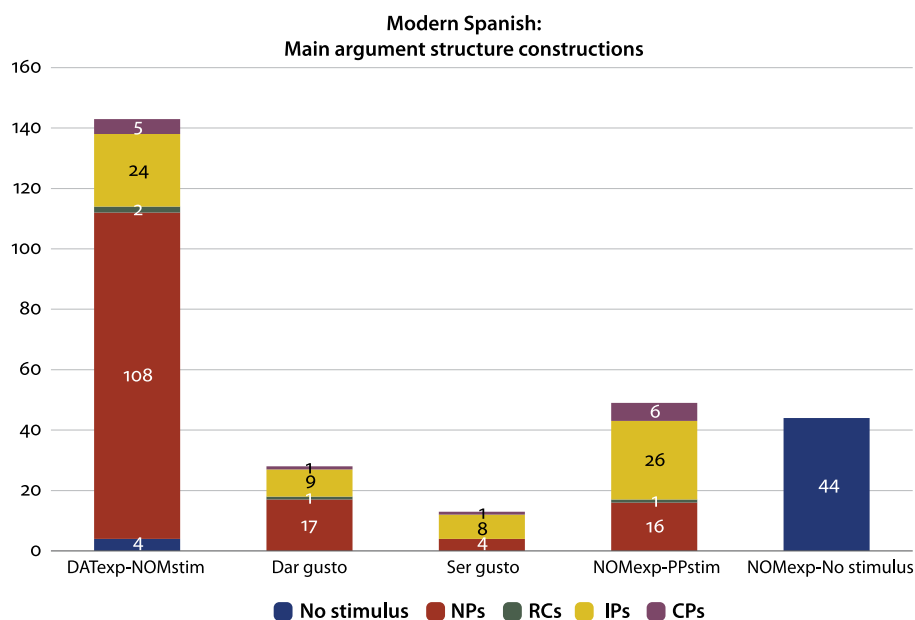


Chart 5. Modern Spanish main argument structure constructions

8. Conclusions

The main aim of this study has been to understand change in the argument structure of the Spanish liking verb *gustar* over time, shedding light on how its nominative experiencer came to be marked as a dative experiencer. Additionally, I have intended here to further investigate whether the linguistic encoding of the stimulus arguments has any correlation with their inherent properties such as empathy or concreteness, or with their syntactic properties. This study demonstrates that a

cognitive-functional framework — based on insights from a usage-based constructionist approach and a usage-based onomasiological approach — can lead to a better understanding of the synchronic and diachronic organization of the functional domain of liking in Spanish. It also shows that the semantic features of arguments can influence the linguistic encoding of a construction, leading to constructional change.

Through a careful corpus-based examination of the data, I have been able to (a) clarify the patterned variation in Spanish liking constructions, showing how synchronic variation in each chronological stage leads to gradual, replacive diachronic changes in line with functional approaches to language change; (b) provide both a quantitative and a qualitative semantic and syntactic description of Spanish liking constructions and of the verbal forms appearing in these constructions, considering lexical verbs and verb-object compounds such as *pagarse*, *ser gusto*, and *dar gusto*, which had not been studied before with regard to the diachronic change in argument structure of liking constructions; (c) describe Spanish liking argument structure constructions in terms of productivity and semantic coherence, establishing which patterns worked as models for analogical extension over time, and; (d) determine that observed trends represent reliable evidence through the submission of corpus data to inferential statistics.

In conclusion, it seems that a key cause for the change in argument structure of *gustar* was a process of analogical extension through a multiplicity of source constructions that displayed a DATEXP-NOMSTIM pattern, namely, constructions with the verb forms *placer*, *agradar*, *dar gusto*, and *ser gusto*. These results are in line with previous findings that show that the higher the type frequency of a construction, the higher the productivity in terms of how likely it is to occur with a novel item (Bybee 1995, Goldberg 1995, Bybee & Thompson 2000, Barðdal 2008). Another important factor that contributed to the change in argument structure of *gustar* is the fact that prepositions did not easily subcategorize for finite subordinate clauses until the end of the Golden Age; this cause is explored in detail in Mojedano Batel (2020). An additional possible cause which could have aided in the change of argument structure of *gustar* was that NOMEXP-PPSTIM *gustar* never allowed for speakers to not overtly state the stimulus within the phrase: having done so would convey an idea of wanting (versus an idea of liking). Meanwhile, using DATEXP-NOMSTIM *gustar* allowed the speaker to omit the stimulus within the clause if said stimulus had been mentioned previously in the discourse. Another two semantic and syntactic factors that seem to have contributed to the change of argument structure from nominative-experiencer *gustar* to dative-experiencer *gustar* are the grammatical person of the experiencer and the causality features of the argument structure: these last two topics will be tackled in future studies. All these properties of the DATEXP-NOMSTIM construction may

indeed have made it more attractive to speakers — who form generalizations based on instance-based knowledge (Goldberg 2006) — to express the idea of liking.

From a typological perspective, results from this study shed light on cross-linguistic variation in argument structures. This study extends scholarship on the issue of word order in psych-verb constructions by positing that in Spanish, word order of the stimulus in relation to the verb answers partly to semantic and syntactic specifications, that is, that while both word orders are unmarked they do not necessarily convey the same meaning. Preverbal stimuli tend to belong to syntactic categories that denote more concrete entities (i.e., NPs and RCs), and postverbal stimuli tend to belong to syntactic categories that denote more abstract concepts (i.e., IPs and CPs). The length of the constituents does not seem to play a part, as evidenced by relative clauses tending to appear preverbally.

Finally, this study shows how verbs can be attracted into a low-type frequency construction that is semantically uniform instead of into a high-type frequency construction that instantiates many semantically distinct verb classes. This finding elaborates on Barðdal's (2008) assumption that, across languages, low-type frequency constructions, being semantically more restricted, will disappear unless they are high in token frequency and/or if they attract new items that are semantically similar. Results are also in line with previous findings that show that the type frequency of a construction correlates with productivity in terms of how likely it is to occur with a novel item (Bybee 1995, Goldberg 1995, Bybee & Thompson 2000, Barðdal 2008). In this study, it was found that among low-type frequency constructions that are semantically uniform, the higher type frequency of the DATEXP-NOMSTIM construction over the NOMEXP-PPSTIM construction made the DATEXP-NOMSTIM construction the more productive one of the two.

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Abbreviations


1	First person	NEG	negation, negative
2	Second person	NOM	nominative
3	Third person	OBJ	object
ACC	accusative	PL	plural
COMP	complementizer	PRS	present
COND	conditional	PST	past
DAT	dative	PTCP	participle
DEM	demonstrative	REFL	reflexive
DET	determiner	REL	relative
F	feminine	SBJ	subject
FUT	future	SBJV	subjunctive
IMP	imperative	SG	singular
IND	indicative	TV	thematic vowel
INF	infinitive		

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Appendix 1. List of texts that comprise the corpus for data from the 13th to the 19th centuries

Century	Year	Title	Author	Title Abbreviation	Number of words in text	Source
XIII	1100 [?] –1210 [?], copied in 1301 ca. –1350 ca.	El Cantar de mio Cid	Anonymous	CMC	31930	www.cervantesvirtual.com
	1251, copied in 1401 ca. [?] –1410 ca. [?]	Calila y Dimna	Anonymous	CD	78926	www.cervantesvirtual.com
	1253, copied in 1429-08-12 a quo –1500	Sendebar	Anonymous	Sendebar	15887	www.cervantesvirtual.com
	1246 a quo –1252 ad quem	Milagros de Nuestra Señora	Gonzalo de Berceo	MNS	27595	www.cervantesvirtual.com
	1335	El Conde Lucanor	Don Juan Manuel	CL	77356	www.cervantesvirtual.com
XIV	1300 –1305	Libro del Cavallero Zifar	¿Ferrand Martínez?	CZ	54087	www.cervantesvirtual.com
XV	c.1400	Libro de don Tristán de Leonís	Anonymous	DT	112849	Electronic Texts and Concordances of the Madison Corpus of Early Spanish Manuscripts and Printings; Prepared by John O'Neill. Madison & New York 1999
	1406	Embajada a Tamorlán	Ruy Fernández	ET	83437	www.cervantesvirtual.com
	1418	Las siete edades del mundo	Pablo de Santa María	Siete edades	51203	Textos Lemir. Edición y estudio a cargo de Juan Carlos Conde 1997
	1438	El Corbacho	Alfonso Martínez de Toledo	Corbacho	76126	Electronic Texts and Concordances of the Madison Corpus of Early Spanish Manuscripts and Printings; Prepared by John O'Neill. Madison & New York 1999, Escorial: Monasterio h.III.10. Transcribed by Eric W. Naylor

Appendix 1. (continued)

Century	Year	Title	Author	Title Abbreviation	Number of words in text	Source
	1438–1445	Triunfo de las donas y cadira de onor	Juan Rodríguez del Padrón	Triunfo	23119	www.cervantesvirtual.com
	1497 a quo [?] – 1499 ad quem	La Celestina	Fernando de Rojas	LC	68506	www.cervantesvirtual.com
	XVI 1552	Historia general de las Indias	Francisco López de Gómara	HGI	293868	www.cervantesvirtual.com
	1559	Los siete libros de la Diana	Jorge de Montemayor	Diana	73086	www.cervantesvirtual.com
XVII	1604	Segunda parte de la vida de Guzmán de Alfarache, atalaya de la vida humana	Mateo Alemán	GA	138132	www.cervantesvirtual.com
	1605	El ingenioso hidalgo don Quijote de la Mancha	Miguel de Cervantes	DQ	187087	www.cervantesvirtual.com
	1638	Novelas amorosas y ejemplares	María de Zayas	NAE	111651	www.cervantesvirtual.com
	1651–1657	El Criticón	Baltasar Gracián	Criticón	212511	www.cervantesvirtual.com
	c. 1605	Peribáñez y el comendador de Ocaña	Lope de Vega	Peribáñez	18205	www.cervantesvirtual.com
	1613	El perro del hortelano	Lope de Vega	El perro	20577	www.cervantesvirtual.com
	1613	La dama boba	Lope de Vega	La dama	19155	www.cervantesvirtual.com
	1614	Fuenteovejuna	Lope de Vega	Fuenteovejuna	14486	www.cervantesvirtual.com
	c. 1620	El caballero de Olmedo	Lope de Vega	Olmedo	16093	www.cervantesvirtual.com
	1631	El castigo sin venganza	Lope de Vega	Castigo	18623	www.cervantesvirtual.com
	1634	Las bizarrías de Belisa	Lope de Vega	Belisa	15385	www.cervantesvirtual.com


Appendix 1. *(continued)*

Century	Year	Title	Author	Title Abbreviation	Number of words in text	Source
XVIII	c. 1600	El conde Alarcos	Guillén de Castro	Alarcos	16283	www.cervantesvirtual.com
	c. 1605	Las mocedades del Cid	Guillén de Castro	Mocedades	16969	www.cervantesvirtual.com
	c. 1606	El curioso impertinente	Guillén de Castro	Curioso	18304	www.cervantesvirtual.com
	c. 1612	El Narciso en su opinión	Guillén de Castro	Narciso	16499	www.cervantesvirtual.com
	1629	La dama duende	Calderón de la Barca	Dama	16502	www.cervantesvirtual.com
	1634	Mañanas de abril y mayo	Calderón de la Barca	Mañanas	15533	www.cervantesvirtual.com
	1636	El alcalde de Zalamea	Calderón de la Barca	Alcalde	16344	www.cervantesvirtual.com
	Published in 1657	Darlo todo y no dar nada	Calderón de la Barca	Darlo	21088	www.cervantesvirtual.com
	Published in 1691	Amado y aborrecido	Calderón de la Barca	Amado	20452	www.cervantesvirtual.com
	1789	Cartas marruecas	José Cadalso	Cartas	62986	www.cervantesvirtual.com
XIX	1758	Fray Gerundio de Campazas	José Francisco de Isla	FG	234692	www.cervantesvirtual.com
	1742–1760	Cartas eruditas y curiosas	Feijoo	CEC	53726	www.cervantesvirtual.com
	1887	Fortunata y Jacinta	Perez Galdos	FyJ	396805	www.cervantesvirtual.com
	1834	El doncel de Don Enrique el doliente	Mariano José de Larra	Doncel	114324	www.cervantesvirtual.com
	1856	La familia de Alvareda	Fernán Caballero	Familia	36500	www.cervantesvirtual.com
	1889	Insolación	Emilia Pardo Bazán	Insolación	42854	www.cervantesvirtual.com

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