SPANISH MODALS OF OBLIGATON: DIFFERENT USES OF TENER QUE AND NECESITAR

by

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Abstract

Considerable research exists on the various uses of modals of obligation in English, while the number of studies on Spanish modals is limited. The research of Fairclough (2000) looks at the variation and changes of the Spanish modals *DEBER 'should'* and *TENER QUE 'to have to'* spoken in Houston. Another study was conducted on modals and their variation in San Juan, Puerto Rico by Jose Santos (1994). However, most of the research does not include the verb *NECESITAR 'to need'*.

This study examines and compares the uses of the modal verbs *TENER QUE* and *NECESITAR*. First, this paper presents previous research on modality, the changes and usage of modals in English, and the limited research on Spanish modals. Then the researcher examines the results of data collected using Twitter in order to determine for what main verbs *TENER QUE* and *NECESITAR* act as modal verbs, the frequency with which the Twitter users in the Spanish-speaking capitals in Central and South America use these verbs, and in what tense do these two modals occur most often. After discussing the results of the data collection, the study includes a brief discussion on the implications for teaching modals of obligation in Spanish to second language learners. This study finds overall that *TENER QUE* is preferred over *NECESITAR*. However, some verbs collocate with *NECESITAR* more than the average suggesting that patterns of collocations play a key role in determining the use of *NECESITAR*.

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Spanish Modals of Obligation

Introduction

Many researchers have looked at how modals of obligation in English have evolved over time. For example, Dollinger (2006), who examines gradient change and colonial lag, which describes the survival and retention of linguistic structures in settler groups (p. 288) of Canadian English. Another example is Tagliamonte and D'Arcy (2007) who examine the changes in modals of obligation based on a corpus of Toronto English. Fischer (2003) utilizes previous data collected from authors like Lightfoot (1974, 1979) to examine the changes of the core modals in English from fully formed verbs to auxiliary verbs throughout history.

While research has been conducted on Spanish modals of obligation, the number of studies performed is limited. The research of Fairclough (2000) looks at the variation and changes of the Spanish modals *DEBER* 'should' and *TENER QUE* 'to have to' spoken in Houston. Another study was conducted on modals and their variation in San Juan, Puerto Rico by José Santos (1994), who specifically focuses on the modals in their conditional '-ría' forms. Others, like Cornillie (2005), look at Spanish modals by examining the idea of modal grounding, while Rilea (2002) takes a pragmatic perspective on modality. However, none of the research includes the verb *NECESITAR* 'to need'.

The present study examines and compares the uses of the verbs *TENER QUE* and *NECESITAR*. First, this paper presents previous research on modality, the changes and usage of modals in English, and the limited research on Spanish modals. Then the study examines the results of data collected from Twitter in order to determine for what main verbs *TENER QUE* and *NECESITAR* act as auxiliary verbs, how speakers of Spanish in the capitals of Spanish

speaking countries use these two verbs, and in what tense do these two modals occur most often.

After discussing the results of the data collection, a brief discussion on the implications for teaching modals of obligation in Spanish as a second language is included.

Previous Research

Modality

Research on modality and modals by Palmer (1986) is cited throughout modal research. Modals are a subclass of auxiliary verbs that express necessity, obligation, or permission. Palmer (pp. 33-34) lists the characteristics of modals in English to be: modals cannot co-occur, the third person singular does not end in –s, no non-finite form exists, and modals cannot be used as imperatives. For example the phrase *I will shall have a taco is considered ungrammatical because the modals will and shall cannot co-occur. Modals also do not end in –s in the third person singular form 'he may, she can, *he cans'. Non-finite forms of modals such as *to can do not exist nor do imperatives '*May ask!'. In his list of modals, Palmer does not include to have as a modal because it does not follow these prescribed rules for modals 'He has to do the laundry. I have to have that doll'. This could be the reason for Palmer's mention of the central issue: "The real problem with modality is not just great variation meaning across languages but there is no clear basic feature" (p. 4). In English, have to and need to are considered semi- or quasi- modals as they do not follow all five of the characteristics set forth by Palmer.

Bybee (1994) mentions Palmer's explanation of modality in that it is the grammaticalization of the speaker's attitudes and opinions. However, Bybee goes much further than Palmer, studying modality domain and looking at the progress of modals on diachronic paths (p. 176). Bybee breaks modality down into four types: agent-oriented, speaker-oriented, epistemic and subordinating. According to Bybee, most researchers do not consider agent-

oriented to be a modality. However, these modal senses are diachronic in most cases, so agentoriented qualifies for this study (p. 177).

Bybee also analyzes the differences between modals used for obligation, necessity, and intention. Obligation and necessity are both external forces compelling one to complete an action. However, obligation is more often linked with social norms or conditions 'He must come to the party' while necessity is more of a physical condition 'She needs to eat'. Intention is more recent and is a literal obligation 'He has to leave' (pp. 177-178). Similar to Bybee, Fairclough (2000) uses the definition of modality given by Silva Corvalán (1995, p. 74), "la expresión de la actitud del hablante hacia el contenido de un enunciado', lo define como 'un concepto semántico que incluye una serie de significados: certeza, posibilidad, creencia, obligación, necesidad, permiso, voluntad, intención, duda, predicción y rechazo" ('the expression of the speaker's attitude toward the content of the statement' defined as, a semantic concept that includes a series of definitions/types: certainty, possibility, belief, obligation, necessity, permission, will, intent, doubt, prediction, and rejection'—my translation').

Rilea (2002) adopts a pragmatic look at modality, saying that modality and modals are linked with the theory of speech acts. Three speech acts are mentioned: using speech to express a feeling, to do something, or to produce an effect on the listener. A correlation exists between speech acts and the intended conditions such as belief, desire, and necessity (p. 6). This implies a link between what a person says and how it is said as well as how the listener interprets what is said. For example, 'He must be in his room' could mean that is the location (as he is nowhere else) of the person or he is obliged/ordered to be in his room. This idea plays a part in determining the epistemic or deontic function of a modal verb.

Epistemic and Deontic Functions of Modals

Epistemic and deontic functions of modals differ in their use in discourse. Epistemic modals tend to refer to personal beliefs 'I need to eat now or He should be here.' while deontic modals refer to the need to complete an action or give permission 'He must come early'. Palmer (1986) describes epistemic modality as "concerned with matters of knowledge or belief."

Deontic modality is concerned with the necessity or possibility of acts performed by morally responsible agents. For example, 'He may have supper with us' can be interpreted as both epistemic and deontic. The speaker believes the subject he will be at supper (epistemic) or the speaker is allowing the subject he to join them for supper (deontic). Epistemic and deontic modality are essential parts of the wider distinction between the use of language to inform and the use of language to act, between language as a 'mode of action' and language as a 'countersign of thought' (Malinowksi 1923 [1949]).

Bybee's (1994, p. 179) definition of epistemic modality gives a more detailed description: "Epistemic modality applies to assertions and indicates the extent to which the speaker is committed to the truth of the proposition." Tagliamonte and Smith (2006) quote Coates (1983, p. 32) as saying, "Deontic modality encompasses a range of meanings including obligation, permission, and necessity." While some definitions are more in depth than others given here, epistemic and deontic modalities have two very distinct usages. Fischer (2003) further divides the two saying epistemic modality is speaker-oriented while deontic is agent-oriented. Consider the example sentence; 'He may have supper with us'. In epistemic modality, the speaker is trying to make a point of expressing his or her belief. If examined in the context of deontic modality, the speaker is telling the listener or agent he or she is permitted to do the action of having supper.

Changes in modal verbs are occurring as language is continually changing. Fischer (2003) comments, "Epistemic modals almost invariably derive from deontic and dynamic modals, and it is via this path that the original modal verbs may grammaticalize into auxiliaries, clitics and affixes on the verb" (p. 20). Many researchers began studying the changes in English modals of obligation throughout history as well as the changes in epistemic and deontic functions of those modals.

Have to and Need to in English

Typical modals in English are the verbs: *have to, must, may,* and *need*, among others. Over time, these words' usage has developed. Some of these verbs are used more in epistemic cases, yet others tend to be deontic. Bybee (1994) explains in her study that *have to* expresses more general obligation, not just scheduled situations, where the agent's commitment to the obligation is apparent such as '*I have to go to the store*' (pp. 183-187). The obligation is present, yet the act is a generalization rather than a specific task. The speaker does not mention when or for what items he or she must go.

The development of *have to* as an English modal has taken time. Tagliamonte and Smith's (2006) research makes this apparent by discussing the layering of 'different forms reflect grammatical change,' (p. 344) and competition between deontic modals in dialects of English. The primary locations of focus were towns in England, Scotland, and Northern Ireland with varying levels of cultural and geographical isolation. These towns exhibit the full range of old and new forms of deontic modality. *Have to* is distinguished by the fact that it is "resistible" under certain circumstances. In Tagliamonte and Smith (2006), *have to* expresses a lower level of obligation than *must*; the variants of *have to* and *have got to* represent the vast majority of uses in dialectal data.

Have to can be traced back as being used in a deontic function in Middle English. Starting in Early Modern English, it became fully established coming into competition with must. Van der Gaaf (1931) explains, "have to transforms into a modal auxiliary when it expressed nothing but duty, obligation, compulsion, necessity, and gradually had the place assigned to it occupied by auxiliaries, namely before the infinitive, while at the same time the object began to be placed after the infinitive". Brinton (1991) argues that the morpho-syntactic status of have to has yet been completely determined as it is does not follow the typical structures outlined by Palmer; the defining characteristics of have to fall between auxiliary and full verb. Contrary to Palmer's characteristics, have to can occur with other modals and has a third person present form has. Typically have to is considered a semi-modal for the reasons above and due to its "newness" to English compared to must.

Have to represents 44.7% of the data collected in all dialects--only in Tiverton is got to used more, at 49%. Buckie and the northern Irish communities had the overwhelming use of have to at 80% and 84% respectively. It is possible this usage is due to the retention of an older layer in the development of forms. Areas with have got to take to the newer layer of this type of modal. Tagliamonte and Smith (2006) suggest the modals are in flux, and while there is new competition from have got to and got to, have to will make a resurgence based on the linguistic and social factors that intervene 'specifically age'. Have to also more readily fits the auxiliary slot.

In a different study on the history of English modals, Dollinger (2006) focuses on *have to* and *must* in the Corpus of Early Ontario English: specifically gradient change and colonial lag. Since *must* and *have to* occur at higher frequencies than other markers of obligation, they are good candidates for a corpus-based diachronic study. *Need to* has been considered a strong

obligation marker (Biber et al. 1998) but occurs only once in Dollinger's corpora 'in BrE section'. In Dollinger's opinion, corpus-based research on *have to* and *must* is still rather scarce.

The data came from three sources and comprise four historical varieties 'CanE- Canadian English, AmE -American English, BrE-British English, and NW-BrE-Northwest British English using CONTE-pC, ARCHER-1, and CL18P corpora'. For Dollinger's purpose, *have to* began making a presence after 1850, which was the cutoff for his data. The results then display a lower frequency for the use of *have to* in AmE. CanE (1.36) definitively has more usage of *have to* (lacking the usage from 19th century AmE). However, *have to* shows very low usage in BrE (0.73). *Have to* rose first in letters and then fifty years later in diaries and newspapers, meaning it spread from informal contexts to more formal ones. Before 1800, deontic *have to* appears in CanE 15.3% of the time and BrE 9.09% in letters. From 1800 to 1849, the appearance rose in CanE to 37.14% while dropping in BrE to 6.25%. Dollinger's search for epistemic *have to* yields no results in any of the corpora in Early English. This suggests the idea mentioned by Fischer (2003 above that epistemic modality eventually derives from deontic modality is valid.

Tagliamonte and D'Arcy (2007) also analyze modals in Canadian English. They examine the Canadian perspective of modals of obligation/necessity. The research focuses on the population of Toronto, Canada since it is the largest urban area of that country. The emergence of semi-modals (Bybee, Perkins, and Pagliuca 1994; Krug 2000), including *need to* and *have to*, is responsible for the decline of other English modals. Also discussed by Tagliamonte and D'Arcy is the time *have to* starts to appear in the English language. The research presents the same time frame for development as the research of Tagliamonte and Smith (see above). *Need to* is the most recent layering in the system of modals, which has risen in frequency in BrE and AmE during the late 20th Century (Leech 2003) and has both epistemic and deontic functions

found in both written and spoken corpora of BrE. The use of *need to* is attested from the mid 19th century. Some geographical variation does exist as well. For example, *have got to* and *got to* are more frequent in southern varieties of British English (Collins 2005, Krug 1998, Leech 2003, Smith 2003). Strong evidence suggests that AmE has the highest relative frequency of *have to* (Biber 1999).

The notions of deontic and epistemic modality exist in the limited research performed on Spanish modals of obligation, as does the idea that geography might play into the variation of uses of the modals. However, research on Spanish modals of obligation is limited and has not been studied in as much detail as English modals.

Modals of obligation in Spanish

Research exists on the variation of Spanish modals, yet NECESITAR 'to need' is not included. The modals studied are: DEBER 'de' 'should/ought', TENER QUE 'to have to', PODER 'to be able to, can', and HABER DE 'to have to'. Cornillie (2005) discusses modal grounding of Spanish epistemic modals, focusing on epistemic modality for his research. For example, él tiene que estar en la bibloteca 'He has to be in the library' would be considered epistemic if discussing the location of a person. Spanish epistemic modals allow the speaker to have an encompassing view on the state of affairs, which is more potential or projected than actual reality. Some inferential readings of TENER QUE have an inherent deontic dimension like the phrase above. However, TENER QUE cannot express epistemic modality when preceded by an aspectual verb (*la gente va a TENER QUE usar la bicicleta-'The people are going to have to use the bicycle'). TENER QUE is capable of yielding both a speaker-oriented and an agent-oriented deontic reading (Es que lo vamos a TENER QUE hacer-'It's that we are going to have to do it'). It is possible that this usage is due to TENER QUE being a more recent development.

The different distribution of *DEBER* and *TENER QUE* shows that deontic modals are undergoing a change toward less temporal grounding.

In a variationist study, Santos (1994) looks at the modals in Spanish spoken in San Juan, Puerto Rico with specific data on the use of the conditional tense '-ría', where he examines the use of *DEBER*, *PODER*, *HABER QUE*, and *TENER QUE*. *TENER QUE* expresses imperative obligation and certain necessary suppositions. Of the 775 tokens appearing in the conditional and their possible alternative forms, 394 are in context of modal verbs, 381 are not, and 92 of them are conditional. Of the appearances of modal verbs, *TENER QUE* appears 29 times and only 7 of those instances in the conditional. Also worth noting is that most of the occurrences of the modals are in present tense, while non-modals are in the conditional. It raises the question "How much does tense affect the usage of certain modals?"

In a different approach, Fairclough (2000) researches semantic-pragmatic variation and change, affecting the forms DEBER 'de' and *TENER QUE* in both deontic and epistemic modes. Her quantitative and qualitative studies are based on 12 hours of recording in Spanish with Mexican and Mexican-American speakers in Houston, Texas who have lived there for at least 10 years. According to Fairclough, like in English, Spanish modals have become more auxiliary than fully function verbs. From the data collected *TENER QUE* occurs 129 times. In the different generations, the epistemic use of *TENER QUE* was very low at 5% (all generations). The radical (deontic) use formed 95%. Fairclough noted that the use of the epistemic came mostly from the Mexican-American speakers. The use of *TENER QUE* in a deontic function is higher by all groups than the use of *DEBER* (*de*) by all groups as well. It also suggested that the use of epistemic *TENER QUE* could be due to the reduction of the use of *HABER* (*de*) by bilingual groups (only 7 tokens).

The data used in the aforementioned studies were gathered in a variety of ways.

Tagliamonte and D'Arcy (2007) and Dollinger (2006) used various corpora to complete their research while others like Santos (1994) and Fairclough (2000) chose to collect their data by means of recordings and interviews conducted.

Research Questions

The previous research described above provides insight of the development in modals over time in English as well as the use of modals in Spanish. However, it did raise the following questions:

- 1. In Spanish, which form is more frequent overall: TENER QUE or NECESITAR?
- 2. Does usage vary by region? Do some Spanish-speaking countries prefer one modal verb, that is, *TENER QUE* or *NECESITAR*?
- 3. Does tense have an effect on the usage of TENER QUE, NECESITAR, or both?
- 4. What types of verbs follow *TENER QUE* and *NECESITAR*? Are they stative, active, participation, etc.?
- 5. Are there high-frequency collocations that prefer one modal over the other?

Methodology

Why Twitter?

Social networking today can occur via the Internet, apps, and other modes of communication. No longer does it just include the groups in which a person socializes face to face or in a physical manner (cf. Milroy 1987). These sites make data collection from social groups easily attainable. Twitter can be used as a corpus from which data can be collected from specific searches for key words in different regions.

Data Collection

Data were isolated and extracted from the social network Twitter. Tweets were pulled from seventeen of the Spanish-speaking countries' capitals using a script written for the R programming language (R Development Core Team, 2014). R is a freeware program that allows users to create a script to pull data from the Internet, among many other uses, such as statistical analysis. The script can focus on a keyword or keywords or a phase and insert the data into a spreadsheet. The script used in this research pulled tweets containing all conjugated forms of the Spanish modals of obligation *TENER QUE 'to have to'* and *NECESITAR 'to need'*. The original search for a week's worth of tweets yielded 38,406 tweets containing various forms of *TENER QUE* and *NECESITAR*. The data were narrowed down to one day, February 4, 2014, which reduced the number of tweets to 14,239 tokens. That specific day was chosen due to the wide variety it provided in tenses. The two modals were analyzed based on the following: the frequency of use in different regions, the tenses used, and the collocates of verbs that followed the modals.

Using R to isolate and organize the data into different tables, the frequency of the lemmas *TENER QUE* and *NECESITAR* was calculated per capital city of the Spanish-speaking countries of Central and South America. Then the data for the frequency of each instance of the uses of *TENER QUE* and *NECESITAR* in the different tenses was analyzed. For example, the number of times *tengo que* (present indicative tense, first person singular) appears in the tweets can be compared to the number of tokens for *necesito* (present indicative tense, first person). Finally, similar manipulation of the data in R also extract the collocates that followed both verbs. Only

¹ Dr. Earl K. Brown of Kansas State University wrote the script for the R programming language.

The data for Mexico City is from February 17, 2014 as an error occurred in the first extraction of data. The total number of tweets for this day is 471.

the infinitive verbs are analyzed in this research. The research also looks at the collocations of the verbs that occur above the overall average for *NECESITAR*. Cacoullos and Walker (2009) examine the use of expressions of future tense phrases *will* and *going to*. This study shows that the choice of one of the future auxiliaries in English is not determined by invariant semantic reading, but that collocations shape grammatical variation. Using this idea, the present study looks at how *NECESITAR* collocates highly with certain infinitives.

This data were interpreted to try to answer some key research questions that could aid in the understanding and teaching of modals to second language learners of Spanish.

Results

Regional Variation

After analyzing the data pulled on the usage of *TENER QUE* and *NECESITAR* by the Twitter users in the capitals in Central and South America, one key idea stood out: the usage of *TENER QUE* and *NECESITAR* by Twitter users favors the former. The total uses by lemma show *TENER QUE* is used 87% of the time while *NECESITAR* is only used 13% overall. As shown in Table 1, the numbers of tokens by the lemmas *NECESITAR* and TENER QUE are separated by capital city. As seen, each city shows a tendency to utilize *TENER QUE* over *NECESITAR* consistently. The percentage of use in each city for *TENER QUE* ranges from 77% (in Quito, Ecuador) to 97% (in La Paz, Bolivia), which means that the use of *NECESITAR* ranges from 3% in La Paz to 23% in Quito. The small number of tokens may influence the percentage difference for La Paz. If one looks at Table 1 for Buenos Aires, which has a higher number of tokens, one can see the preference for *TENER QUE* still exists. Twitter users in Buenos Aires utilizes *TENER QUE* 92% of the time in the data "collected," leaving only 8% of the tokens with

NECESITAR. All of the capital cities show this preference for *TENER QUE*, although some show higher usage of *NECESITAR* than others.

		TENER	%	% TENER	
	NECESITAR	QUE	NECESITAR	QUE	N
Quito	43	143	23%	77%	186
Tegucigalpa	21	72	23%	77%	93
Montevideo	189	671	22%	78%	860
Caracas	284	1,112	20%	80%	1396
San José	81	355	19%	81%	416
Guatemala	224	1,156	16%	84%	1380
Bogotá	160	930	15%	85%	1090
Asunción	84	583	13%	87%	667
Santo					
Domingo	12	80	13%	87%	92
San Juan	121	875	12%	88%	996
Havana	35	280	11%	89%	315
Panama City	49	394	11%	89%	443
San Salvador	87	682	11%	89%	769
Mexico City	45	426	10%	90%	471
Santiago	115	1,041	10%	90%	1156
Buenos Aires	339	3,872	8%	92%	4211
La Paz	1	38	3%	97%	39
Total	1890	12710	13%	87%	14580

Table 1 Distribution of *TENER QUE* and *NECESITAR* in tweets sent from capital cities in Spanish-speaking Latin America

As can be seen in these capital: Caracas, Venezuela; Quito, Ecuador; Montevideo, Uruguay; and Tegucigalpa, Honduras have a 20% or higher usage of *NECESITAR* while the other capitals do not. This could be a potential rise in the use of *NECESITAR* as a deontic modal but requires further research on language change. The results show that, by far, *TENER QUE* is used more than *NECESITAR*. These results are informative as to which form to give most attention to in an L2 classroom or in textbooks and other materials designed for the L2 classroom.

Usage by tense and form

As one can see from the usage by capitals, the use of *TENER QUE* is overwhelmingly favored over *NECESITAR*. Since no variation in preference exists among the capitals, the focus of this research turns to the analysis of tense as a conditioning factor on modal selection.

When examining the tenses used on Twitter, both the tense (present, past, future, and so on) and the conjugations (I, You, He) in those tenses were studied. In Spanish, the inflectional morphology of a verb gives the person, the tense, the aspect, and the mood. For example, *tengo* is the first person singular form of *TENER* in the present indicative (henceforth referred to as present). Some inflections have multiple uses such as *tenga* in both the *usted* (formal) command of *TENER* as well as the subjunctive first person singular or the subjunctive third person singular form of *TENER*. Context helps clarify how the form *tenga* is being used.

As can be seen in Table 2, which lists the top five conjugations of each verb, Spanish-speaking countries in Central and South America use both *TENER QUE* and *NECESITAR* most frequently in the present tense. With both verbs, the first person form is also the most frequent. *Tengo que* has 3,348 of the 12,284 tokens of *TENER QUE* that occurred for over 25% of the usage. *Necesito* accounts for almost 50% of the 1890 tokens for *NECESITAR* that occurred in Central and South America. The second highest frequency of use of both verbs is in the present tense with the conjugations occurring in the third person singular forms of the verb. The percentages for these two forms are quite different. *Tiene que* accounts for 13% of the forms of *TENER QUE*, which is 14 percentage points less than the first person singular form. *Necesita* only accounts for 15% of the occurrences of *NECESITAR*, which is 35 percentage points less than the first person singular form. While this difference in percentages is quite large, the overall number of tokens for *TENER QUE* is much higher than *NECESITAR*, making the difference between *necesito* and *necesita* appear much larger than *tengo que* and *tiene que*.

RANK	TENER QUE	Tense/pers.	N	NECESITAR	Tense/pers.	N
1	Tengo que	1st sing.	3,348	Necesito	1st sing.	915
		present			present	
2	Tiene que	3rd sing.	1,644	Necesita	3rd sing.	296
		present			present	
3	Tenemos	1st plur.	1,434	Necesitas	2nd sing.	214
	que	present			present	
4	Tienen que	3rd plur.	1,100	Necesitamos	1st sing.	163
		present			Present/pret.	
5	Tienes que	2nd sing.	938	Necesitaba	1st/3rd sing.	147
		present			imperfect	

Table 2 Top 5 Forms (Mexico City is analyzed separately for comparison)

Another key observation in the top five conjugations in Table 2 is the position of the first person plural present tense forms. However, some of the tokens could also represent the preterit as well. For *TENER QUE*, the first person plural form is the third highest in frequency with 1,434 tokens, but for *NECESITAR* it is the 4th highest with only 163 tokens. In fact, *necesitas*, the second person singular form in the present tense, is third highest with 214 tokens. The second person singular form for *TENER QUE* is the 5th highest with 938 tokens. This shows the preference to use *necesitas 'you need to'* is higher than *tienes que 'you have to'* in the present tense in Spanish.

A final observation in Table 2 is the appearance of *necesitaba* in the top five uses of *NECESITAR*. It is the only past tense form that appears in the top five, with 147 tokens.

Necesitaba is the imperfect tense and can either refer to the first person singular or third person singular. It is used to say what someone used to need or was in progress of needing in the past tense 'Necesitaba saber mi número de teléfono de mi casa- 'I needed 'used to need' to know my house telephone number''. The first appearance of the past tense for TENER QUE is the 6th most frequent form tenía que with 865 tokens. It is also the imperfect first/third person singular form

of *TENER QUE*. The other past tense in Spanish, the preterit, has the 7th highest frequency for *TENER QUE*. *Tuve que* occurs 618 times and is the first person singular form in the preterit, which marks a completed or new action in the past. However, in the 1,955 tokens of *NECESITAR*, no tokens exist in the preterit tense suggesting that *NECESITAR 'need to'* does not necessarily imply a completed action. Overall, *TENER QUE* occurs 937 times in the preterit while the possible number of tokens for *NECESITAR* is only 163 tokens. Once again, the latter number can either be present tense or preterit, depending on usage.

Table 3 contains the top five forms of both *TENER QUE* and *NECESITAR* from Mexico City, which differ from the top five forms listed in Table 2 for the rest of the Spanish-speaking capitals in Latin America. For *TENER QUE* in Mexico City, the most frequent form is the second person singular form in the present tense. This form (the *tú* form) is one that signifies informality. It is usually used with people with whom one is familiar. In other Latin American capitals, this form was the 5th most frequent form. In Mexico City *tienes que* accounts for almost 40% of the forms of *TENER QUE*. For *NECESITAR*, the highest form is the first person plural (*nosotros* in Spanish) in the present with 25 tokens accounting for 55% of the occurrences.

RANK	TENER QUE	Tense/pers.	N	NECESITAR	Tense/pers.	N
1	Tienes que	2nd sing.	167	Necesitamos	1st plur.	25
		present			present	
2	Tenemos	1st plur.	77	Necesitan	3rd plur.	8
	que	present			present	
3	Tenga que	1st/3rd sing.	41	Necesitaba	1st/3rd sing.	3
		Subj/command			imperfect	
4	Tenía que	3rd plur.	23	Necesites	2nd sing.	3
		imperfect			Subj/comma	
					nd	
5	Tuvo que	3rd sing.	12	Necesiten	3rd plur.	2
		preterit			subjunctive	

Table 3 Top 5 forms (Data from Mexico City)

Another interesting comparison between Mexico City and the other capitals is the lack of present tense first person tokens in the top five forms. In all the tokens collected from Mexico City, neither *TENER QUE* nor *NECESITAR* occur in this form. *TENER QUE* only has tokens for the first person singular in the imperfect, the future, the conditional, the present perfect, and the subjunctive tenses. With both *TENER QUE* and *NECESITAR*, this would be reason to study the context of the verbs, which could refer to the first person or third person, to clarify this anomaly in Mexico City's usage (or lack there of) of the first person forms.

Looking at specifically the preterit and imperfect tenses in all of the capitals studied, *TENER QUE* appears 969 times in all of its preterit conjugations while *NECESITAR* only occurs once in as *necesitaron 'they/you guys need'* and possibly various times in *necesitamos* as this conjugation is the same for both present and preterit. This shows the use of *TENER QUE* is significantly higher than *NECESITAR* in the preterit tense. This difference is particularly helpful when teaching Spanish as a second language as it shows how tense affects usage. Obligations that are perceived as completed by the speaker, thus requiring the preterit tense, are usually expressed with *TENER QUE* while obligations that are perceived as incomplete in a paste time frame, and therefore expressed with the imperfect tense, are usually expressed with *NECESITAR*.

These similarities and differences in the usage of *TENER QUE* and *NECESITAR* by tense show that both verbs occur most commonly in the present tense but differ in the usage of other tenses. Some variation exists in the data from Mexico City when compared to the other Latin American capitals mainly in the lack of a first person singular in the present tense. In the other capitals, the usage of *tengo que* and *necesito* are the highest of any of the forms.

Usage by verb type

This section examines how the infinitives following *TENER QUE* or *NECESITAR* had any effect on the use of each verb. In order to analyze this usage, the concordance lines were sorted by follow word. Then, twenty verbs were chosen for a closer analysis. These verbs were chosen by randomly selecting ten verbs are used with states and ten verbs that are dynamic. Stative verbs describe states of being such as: *be, know, understand, have, hear,* and *think*. Dynamic verbs describe continued or progressive actions like *accept, fall, give, stop, go, return, see* and *talk*. Some verbs can have both a stative and a dynamic use such as *I see your point* (stative) or *I've been seeing the doctor regularly* (dynamic)—involves the action of going to the doctor'.

The selected stative verbs are: aprender 'to learn', conocer 'to know', cuidar 'to take care of', estar 'to be', entender 'to understand', pensar 'to think', preocuparse 'to worry', saber 'to know', ser 'to be' and tener 'to have'. They dynamic verbs are: aceptar 'to accept', caer 'to fall', dar 'to give', dejar 'to permit or to stop depending on context', hablar 'to talk, to speak', hacer 'to do, to make', ir 'to go', pasar 'to spend time with, to pass', ver 'to see, to watch', and volver 'to return'. Similar to the example with English see in the previous paragraph, some of the verbs can be used in both stative and dynamic instances, which will provide dual examples of how they are used with TENER QUE and NECESITAR.

First, the data show that stative verbs follow *TENER QUE* 1,211 times, while *NECESITAR* is followed by one of these stative verbs 267 times. This means *NECESITAR* is only used 18% of time with stative verbs, which compares to the overall rates of usage of these two modals, which once again are *TENER QUE* at 87% and *NECESITAR* at 13%. This is most likely due to *TENER QUE* having an overall higher usage.

When broken down by each verb like in Table 4, one can see the majority of the stative verbs use *TENER QUE*. *Aprender*, *cuidar* and *preocuparse* do not have examples of *NECESITAR* in the data collected. Other verbs such as *entender* and *pensar* show a much stronger tie to *TENER QUE* than *NECESITAR*.

Main Verb	NECESITAR	TENER QUE	% NECESITAR	% TENER QUE	N
Saber	85	60	59	41	145
Conocer	20	23	47	53	43
Tener	24	88	21	79	112
Entender	7	26	21	79	33
Estar	76	330	19	81	406
Pensar	6	32	16	84	38
Ser	49	510	9	91	559
Aprender	0	100	0	100	100
Cuidar	0	33	0	100	33
Preocuparse	0	9	0	100	9

Table 4 Stative verbs by lemma

Spanish Saber and conocer are often translated into English as to know. Saber is used more with factual knowledge such as 'I know the earth is round', while conocer tends to be used more with acquaintance/being familiar with people, places or things like 'I know the president' (knowing as in having met, not who he is). If one looks at the tokens for saber and conocer, the data read differently than the other stative verbs in that saber is used more with NECESITAR and conocer is almost equal in use with both. It is also interesting to note that the tokens in Table 4 are for all of the Spanish-speaking capitals on February 4th, as well as Mexico City on February 17th. If one were to look only at the Mexico City data, one would see saber is used more with TENER QUE (8 tokens) than NECESITAR (5 tokens). In the other capitals, saber is used 80 times with NECESITAR and only 52 times with TENER QUE. This is the reverse from the other stative verbs examined. Thus it seems more common to say in Spanish

alguien necesita saber (algo) 'someone need to know about (something)' rather than alguien tiene que saber 'one has to know'. Some tweets taken from the data set that exemplify this usage are: ...necesito saber cuál es la tarea de inglés 'I need to know which is the English homework' and Necesito saber quién es la muchacha 'I need to know who is the girl'. In many of the concordances, saber is followed by words such as como 'how', cual 'which', de 'of', que 'that', quien 'who or whom', and si 'if' signaling a need for information. In the following examples, saber when following TENER QUE is followed by an action: Tienen que saber escoger el hombre 'You all or you plural have to know 'how' to find the man' and Tienes que saber jugar;' 'You singular have to know how to play'. With saber, more than just the word itself needs to be taken in to consideration. The context of the entire phrase must be considered. Instructors might find this useful as these collocations help in determining the uses of saber and conocer as well.

Conocer does not seem to have the same distinguishable trait that saber has. When followed by conocer, TENER QUE and NECESITAR are used at nearly equal rates. With both verbs, conocer is usually followed by a noun or pronoun referring to a person such as la familia tenía que conocerlo 'The family had to know him' or …necesito conocerte ''…I need to know you ': '. In both cases, conocer is followed by a pronoun referring to someone the subject is tweeting about. This benefits L2 learners in having a better understanding of when to use conocer and saber. It allows learners to develop a more native-like command of the language.

Another set of stative verbs with the same definitions is *estar* and *ser*. In English both verbs can be translated to mean *to be*, but with different temporal orientations. As can be seen in Table 4, both *ser* and *estar* are overwhelmingly used with *TENER QUE*. When *estar* is used with *NECESITAR*, it seems to appear with a word meaning together or separate. For example, in 20

tweets *estar* is followed by the word *juntos* 'together'. One example of a tweet containing *juntas* is @Twitteruser necesitamos estar juntasss '@Twitteruser we need to be together'. ³ Similar words that follow *estar* when used with NECESITAR are solo 'alone', separados 'separated', con...' with- usually followed by a person', contigo 'with you', and conmigo 'with me'.

Ser like estar is overwhelmingly used with forms of TENER QUE (510 tokens).

However, much like conocer, no strong pattern stands out to determine why ser occurs 49 times with NECESITAR. With both TENER QUE and NECESITAR, ser appears to be followed by different parts of speech. For example, ser followed by an adjective occurs with both TENER QUE and NECESITAR such as necesito ser fuerte 'I need to be strong' and tengo que ser fueeeerte 'I have to be strong'. Both TENER QUE and NECESITAR are also used when ser is followed by a noun such as the example: chicas, no se necesita ser una Barbie para ser hermosas 'girls, one doesn't need to be a Barbie in order to be beautiful' and No siempre tengo que ser yo 'I don't always have to be me'. It is interesting with both sets of verbs, estar and ser, as well as conocer and saber, one verb 'in these cases estar and saber' has more distinct, or marked, patterns of usage with NECESITAR.

Another stative verb that is interesting to consider is *tener* itself. In Table 4, one can see that *TENER QUE* is once again the more frequently chosen verb to appear with *tener*. However, no distinct pattern emerges to differentiate the 23 tokens of *NECESITAR* followed by *tener*. Both verbs are acceptable when *tener* is followed by a noun such as in the examples: *necesito tener fe-'I need to have faith'* or *tenemos que tener fe en... 'We have to have faith in something'*. The same occurs with indefinite pronouns following *tener 'Necesitan tener a alguien eh- They need to have someone* or *Tengo que tener algo- I have to have something'*. As one can see, stative

³ Repeated letters is a sign of Spanish Internet orthography to add emphasis (cf. Myslín and Gries, 2010).

verbs, with the exception of *saber*, tend to favor *TENER QUE*. However, a case can be made for the use of *NECESITAR* in specific contexts like the examples presented above with *necesito saber*.

After looking at stative verbs, attention turns to an examination of how *TENER QUE* and *NECESITAR* are used when followed by dynamic verbs. As previously stated, dynamic verbs show continued or progressing actions. Table 5 shows the ten selected dynamic verbs and their tokens with *TENER QUE* and *NECESITAR*.

Main Verb	NECESITAR	TENER QUE	% NECESITAR	% TENER QUE	N
Hablar	97	156	38	62	253
Dar	7	190	36	64	197
Ver	54	367	13	87	421
Volver	11	88	11	89	99
Hacer	55	513	10	90	568
Dejar	15	182	8	92	197
Aceptar	3	43	7	93	46
Ir	40	499	7	93	539
Caer	2	42	5	95	44
Pasar	7	162	4	96	169

Table 5 Dynamic Verbs by Lemma

Similar to stative verbs, *TENER QUE* occurs more frequently before these dynamic verbs than *NECESITAR*. A total of 2,242 tokens exist for *TENER QUE* when followed by dynamic verbs while only 291 tokens exist for *NECESITAR*, making up only 11% of the usage. This difference in percentage from stative verbs is due to more than 1000 tokens more of dynamic verbs. One clear difference can be seen: dynamic verbs occur at least once with *NECESITAR*. Some verbs like *aceptar* and *caer* have very few uses but those uses exist: *necesitamos aceptarlo* 'we need to accept it'. The verbs *hablar*, *hacer*, *ir* and *ver* have much higher usages with *NECESITAR* than other dynamic verbs.

Hablar has the highest number of tokens for use after NECESITAR than any of the twenty selected verbs. However, it still only occurs 38% of the time with NECESITAR. With most of the tweets containing hablar as the main verb, hablar itself is often followed by a preposition (con, de, para), an adverb (mucho- a lot, many, pronto- soon), a pronoun (te- you, me-me, nos-us), or by nothing at all. Tweets exist with both Necesito hablar con... 'I need to talk with...' as well as Tengo que hablar con...'I have to talk with...'. In the concordances collected, NECESITAR hablar con occurs 55 times, while TENER QUE hablar con occurs only 28 times. Another observation that stands out is when hablar is followed by contigo, it occurs with NECESITAR 25 times and with TENER QUE 7 times. This shows that NECESITAR hablar contigo is a strong collocation. However, other prepositions such as de occur more frequently with TENER QUE, as does the use of hablar without any following words. It could be observed that the idea of hablar con 'talking with' occurs more with NECESITAR while hablar de'talking/speaking of (or about)' someone or something occurs more with TENER QUE. While this research does not differentiate between epistemic and deontic uses of the modals TENER QUE and NECESITAR, differentiating between the two types of modals could provide further insight on the usage of both verbs. For teaching, knowing that NECESITAR hablar con is more frequent that TENER QUE hablar con helps in the instruction of highly collocated phrases. Teachers should focus on using these patterns to model for their students.

Two other verbs with higher numbers of tokens are *hacer* and *ir. Hacer* has 55 tokens with *NECESITAR*, but the usage does not follow a specific pattern. *Hacer algo con 'to do something with'* occurs with *NECESITAR*. However, *hacer algo* in general follows *TENER QUE* more frequently. Another usage of *hacer* occurring frequently with *NECESITAR* is *hacerlo 'to do it'*, yet once again it still occurs more frequently with *TENER QUE*.

Ir occurs most frequently with a + a verb or a + a place. For the most part, no pattern exists between TENER QUE and NECESITAR. Both occur with actions and places, with TENER QUE occurring 499 times while NECESITAR occurs only 40 times. Those occurrences seem sporadic except with one use. Ir de compras 'to go shopping' occurs more frequently with NECESITAR (4 tokens) than TENER QUE (1 token). This is the only time when using ir that NECESITAR occurs more often.

Similar to hablar, hacer and ir, ver has a higher usage with NECESITAR than some dynamic verbs and most stative verbs. Ver has 54 tokens with NECESITAR and 367 with TENER QUE. In the 54 tokens with NECESITAR, most of the contexts deal with seeing a person such as: Necesitaba ver a mi novio 'I needed to see my boyfriend' or Necesito ver a mi abuela 'I need to see my grandmother'. The highest usage with NECESITAR occurs when ver is followed by a pronoun referring to someone Necesito verla-' I need to see her or necesito verte- I need to see you'. This pattern occurs in 32, or 37%, of the 54 tokens with NECESITAR. While ver with a noun, preposition or by itself does have instances with NECESITAR, TENER QUE has a much higher frequency in those situations.

As is evident by the data provided, dynamic verbs yielded more tokens than stative verbs when following *TENER QUE* and *NECESITAR*. Some verbs have a clear pattern such as *hablar*, *estar*, and *ver*. Others such as *ser* and *conocer* do not. *Saber* is the only verb out of the twenty examined where *NECESITAR* is preferred over *TENER QUE*. Similar to the regional variation *TENER QUE* has a much higher frequency with both stative and dynamic verbs.

Specific Collocations

As mentioned above, *saber* occurs more frequently with *NECESITAR* than with *TENER QUE*. If one looks at the top twenty verbs that follow the *TENER QUE* and *NECESITAR*, the

data show that some verbs have a percentage higher than 13% with *NECESITAR*. This leads the study to look further at those verbs.

Table 6 shows that six verbs of the most frequently used twenty are used more than 13% of the time with *NECESITAR*. Those verbs are: *dormir 'to sleep'*, *saber 'to know'*, *hablar 'to speak,talk'*, *tener 'to have'*, *salir 'to leave*, *go out'*, and *estar 'to be'*. *Saber*, *hablar*, and *estar* have been discussed above. *Estar* and *salir* are only slightly above the overall average percent. However, *dormir*, *saber*, and *hablar* occur with *NECESITAR* at a very high percent. *Dormir* almost occurs at five times above the average overall usage of *NECESITAR*.

Of the 87 instances of *NECESITAR*+dormir, 68% comes from one phrase: *Necesito* dormir 'I need to sleep', meaning this phrase occurs 59 out of the 87 times these two verbs occur together. Thus, it is more common to hear necesito dormir than tengo que dormir. The phrase tengo que only has 24 instances. *Necesito dormir* is preferred 71% of the time when a person is talking about their desire to sleep. This idea and the exact phrase 'necesito dormir' could be presented to L2 learners in order to increase their native-like command of the langauge.

The second highest infinitive that occurs more than the overall average of 13% is *saber*. As mentioned above, *saber* is followed by interrogatives such as *cuál* and *cómo* when it is used with *NECESITAR*. Another key fact about *saber* when used with *NECESITAR* is that, like *dormir*, the most collocated phrase is *necesito saber*. The use of *saber* with the first person present form makes up 45% of the tokens of *NECESITAR*+saber.

Main		
verb	NECESITAR	TENER
dormir	66.4	33.6
saber	63.4	36.6
hablar	40.5	59.5
tener	25.9	74.1
salir	21.5	78.5
estar	17.8	82.2
volver	11.8	88.2
hacer	8.7	91.3
ser	8.3	91.7
ver	7.3	92.7
dejar	6.5	93.5
ir	5.7	94.3
decir	3.1	96.9
estudiar	3.1	96.9
pagar	2.5	97.5
dar	2.3	97.7
pasar	2.1	97.9
poner	1.7	98.3
haber	0.6	99.4
esperar	0	100

Table 6 Top 20 verbs following TENER QUE and NECESITAR

Hablar is used after NECESITAR 40% of the time, which is also above average. Similar to dormir and saber, hablar occurs in the collocation necesito hablar 93 times while tengo que hablar only occurs 59 times. This shows that necesito hablar occurs 61% of the time when using NECESITAR+hablar. It is interesting that dormir, saber, and hablar have such a high collocation with necesito. This tells teachers and textbook authors that it is vital to teach these highly collocated phrases when using NECESITAR as it is common in native speech.

Teaching Implications

With the data above, teachers of Spanish as a second language could benefit from knowing the difference in native usage of two seemingly similar words. It is important for L2 to speakers of Spanish to know that *TENER QUE* is the more common modal even though *NECESITAR* may seem to be completely equal alternatives. This could be a partial L1 transfer to the L2 use of *NECESITAR*. In spoken English, *need to* and *NECESITAR* sound more similar than *have to* and *TENER QUE*. This might suggest a possible preference by non-native speakers that choose to use a form of *NECESITAR* in a situation that native speakers would use *TENER QUE*.

Knowing that *TENER QUE* is widely preferred would help students have a better understanding of native speech and to sound more native-like when speaking. Learners would be learning culture at the same time because language is a part of culture. Teaching students that *TENER QUE* and *NECESITAR* occur most frequently in the present tense could help with the teaching of obligation because they could see the similarities and differences of how they use *to have to* and *to need to* in their L1 as well. Students would be able to compare and contrast their uses in order to fully understand them in both languages.

Using *TENER QUE* and *NECESITAR* as examples, teachers could help students understand the value in knowing how synonyms, or multiple words of the same meaning, in the L2 are used in native speech. A similar study of words such as *por* and *para 'for'* as well as the examples mentioned above: *saber* and *conocer* or *estar* and *ser* could help students who struggle with words that have similar meanings but different uses. Creating a corpus of tweets or utilizing a corpus already created would allow students to extract patterns of usage to better understand how each is used differently.

Using the collocations with the different infinitives could show L2 learners of Spanish that in certain situations or with certain phrases *NECESITAR* is a more appropriate choice than *TENER QUE* and vice versa. Making that grammatical judgment can be difficult for students who are just learning a language. This knowledge could help them to make that choice and eventually automatize their usage of both *TENER QUE* and *NECESITAR* to be near-native like.

Knowing these similarities and differences can help anyone, not just students, who are trying to improve on their ability to sound more "native-like" in their use of the Spanish language. L2 learners would grow in their grammatical knowledge of *TENER QUE* and *NECESITAR* as well as in the cultural knowledge of the Latin American countries presented in this study. By using Twitter to look at collocations, idiomatic uses of both verbs may be seen as in the example @Twitteruser necesitamos estar juntasss 'we need to be together'. This example shows the idea of being together as a necessity in culture, and the repetition shows a strong connection. Learners whose first language is English would have a better understanding of not only these two modals and how they differ in use in Spanish but how they also differ in their use in English. Overall, these data can help improve the knowledge and understanding of modals of obligation across languages.

Conclusions

After reviewing the data presented above, it is clear *TENER QUE* is in fact more frequent in use than *NECESITAR* by Twitter users in Latin America. The overall usage of *TENER QUE* is 86% of the 14,710 tokens. One can conclude: *TENER QUE* is preferred overall by Twitter users in the Spanish-speaking capitals examined, the usage of the different tenses varies between the two lemmas, and the verb types that follows *TENER QUE* or *NECESITAR* again have some

variation on usage in certain collocations, and verbs that are above the average percentage of use with *NECESITAR* occur in highly collocated phrases.

As in Tables 1, little regional variation exists on the overall usage of *TENER QUE* and *NECESITAR*. In each capital city, it is clear a preference toward *TENER QUE* exists suggesting that *TENER QUE* is the more widely acceptable choice, and *NECESITAR* has specific usage. This is further shown in the data examined from the perspective of the tense used.

While more tokens exist for *TENER QUE*, both verbs take a strong preference to the present tense as both *tengo que* and *necesito* are the most frequent forms of each verb. Only the order of the most frequent forms of *TENER QUE* and *NECESITAR* vary slightly. Mexico City shows some regional variation in the different forms of the verbs. No tokens were found of the first person singular in the present tense for *TENER QUE* or *NECESITAR*. Mexico City also had more variation in the most-frequent forms used with more past tenses and the subjunctive tense (see Table 3). However, *TENER QUE* occurs more with the preterit tense than does

Both stative verbs and dynamic verbs overall favor the use of *TENER QUE* with the exception of *saber*. *Saber* favors *NECESITAR* with 85 tokens to only 60 tokens with *TENER QUE*. While this is the only glaring exception, specific situations required looking past the collocates to the entire following phrases to see if a preference existed. For example, *estar* occurs more often with *TENER QUE*. However, in situations when *estar* is followed by words like *juntos, solos*, or *separados*, *NECESITAR* is used.

Words with similar meanings like *saber* and *conocer* as well as *estar* and *ser* showed one verb to be more flexible than the other. In the case of *saber* and *conocer*, the latter was more

flexible. With *ser* and *estar*, the former has more flexibility between occurring with *TENER QUE* or *NECESITAR*.

With dynamic verbs, all the verbs showed preference to *TENER QUE* overall. However, like the stative verbs mentioned above, certain situations or phrases lent themselves to *NECESITAR*. For example, *hablar con 'speak with'* preferred *NECESITAR* while *hablar de* 'speak about/of' occurred more often with *TENER QUE*. Another key example, *hacer algo con* 'to do/make something with', preferred the use of *NECESITAR*. However, without the use of the word *con*, *TENER QUE* was more frequently used.

The verbs that occur above 13% of the time with *NECESITAR* occur in certain collocations and forms. Following *NECESITAR*, *dormir*, *saber*, and *hablar* occur well over the 13% average and follow the form *necesito* most frequently as in the three collocations: *necesito dormer 'I need to sleep'*, *necesito hablar 'I need to talk'*, and *necesito saber 'I need to know'*. Knowing that these collocations show a pattern is similar to the study done by Cacoullos and Walker (2009). It shows that collocations do shape the use of grammatical forms, since these verbs occur most often after the first person singular form *necesito*.

While these data help with the understanding of native use of *TENER QUE* and *NECESITAR*, further study is needed on these two modals. The verb forms could be analyzed to see if more regional variation exists in the use of modals by tense varies as much as it does with Mexico City. With the idea of the *vosotros* in mind, a study could be done on the use of modals in Spain or the historical development of modals in the Spanish language. More analysis could also be done on the use of stative and dynamic verbs to see if other verbs act like *saber*. The limited number of studies on modals of obligation in Spanish such as *TENER QUE* and *NECESITAR* provides ample room for any or all of these topics to be examined.

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