Used to + V_{INFINITIVE} vs. would + V_{INFINITIVE}:
A case of constructional synonymy?

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Abstract

This present paper seeks to critically assess the common claim that habitual used to *and habitual* would *are interchangeable, which suggests that the two markers hold the same status. The paper examines the internal factors said to constrain the use of the two markers to add to the empirical evidence obtained so far. Theoretically informed by usage-based construction grammar, the paper proposes two habitual past constructions,* used to + V$_{INFINITIVE}$ *and* would + V$_{INFINITIVE}$, *respectively. On the basis of a corpus sample from the 2017 section of Corpus of Contemporary American English (Davies, 2016), a distinctive-collexeme analysis confirms that the two constructions display different construction-verb interaction while a semantic analysis of situation types further suggests semantic restrictions on verb interaction, and an association pattern analysis of the contextual surroundings of the two constructions further reveals that the presence of a temporal marker in the contextual surroundings seems imperative for* would + V$_{INFINITIVE}$ *to act as a marker of habitual past. Based on the findings, the claim that* used to + V$_{INFINITIVE}$ *and* would + V$_{INFINITIVE}$ *is to be used interchangeably is refuted.*

Keywords: Construction Grammar, Habitual Past Markers, Corpus Linguistics, Distinctive Collexeme Analysis, Situation Types, Association Pattern Analysis

1. Introduction

English is known as having not just one but multiple aspectual markers of habituality: *would, used to* and the preterit express past habituality, while *will* expresses present or timeless habituality (Binnick, 2005). Grammarians broadly agree that the aspectual markers of past habituality express events that are viewed as characteristic of a certain interval of time which no longer applies in the present (Comrie, 1976). Consider the following examples:

(1) "while he washed and dressed in the attached bath, she **would** make the bed and straighten the dresser tops (…)" (COCA 2017, FIC, BK:TheyDancedOn)

(2) I **used to** dance, but I don't dance now (Tagliamonte & Lawrence, 2000, p. 324)

(3) Ancient Rome **was** the largest city in the then known world"
(http//www.historylearningsite.co.uk/ancient_rome.htm)

would and *used to* have been discussed as interchangeable as they both express a past condition that no longer applies in the present (Quirk & Greenbaum, 1972; Binnick, 2005). However, it has also been argued (Jespersen, 1964; Zandvoort, 1969; Comrie, 1976; Quirk et al., 1985; Leech, 1987) that *used to* and *would* have internal grammatical factors that constrain the distribution of the two markers. Except for Tagliamonte & Lawrence's (2000) multivariate analyses through which the distributional patterns and patterns of temporal association of *used to*, *would* and the preterit in spoken British English was investigated, research of the habitual past markers through a usage-based approach has been scarce, and the claim of interchangeability of *used to* and *would* therefore ought to be critically assessed. This paper treats *used to* and *would* as habitual past constructions, drawing on the theory of *Usage-based construction grammar* (Bybee, 1995; 2013; Patten, 2014) as it allows for an integrated description of the two grammatical phenomena in question which considers both the semantics, syntax and context of use. The hypothesis is as follows:

> The habitual past constructions, *used to* + V_{INF} and *would* + V_{INF}, are not cases of constructional synonymy (that is, they are not interchangeable), and furthermore, they attain different status in the speech community of American English.

1.1 Usage-based construction grammar

Construction grammar (henceforth, CxG) covers a 'family' of theories in which the primary units of language are grammatical constructions (Goldberg, 1995; 2006; Fillmore et al., 1998; Croft, 2001; 2003; 2005; Bybee, 2013; Michaelis, 2017; Hilpert, 2014). The backbone to all types of construction grammars is the central idea that a construction is a conventional pairing of form and meaning. Traditionally, a construction is understood as an unpredictable pairing of form and meaning in which one cannot decipher the meaning merely on the basis of the combination of the individual formal parts in a construction. Consider the following examples:

(4)   I kid you not
(5)   We're back to square one

Examples (4) and (5) show constructions that deviate from ordinary syntactic and semantic patterns, which renders them unpredictable. Example (4) shows an unusual syntactical configuration which has to be learned as a fixed string of words, whereas example (5) shows a construction that is not semantically compositional which also has to be learned as a fixed string of words. Example (4) and (5) are both examples of idiomatic expressions as they both have non-predictable meanings and, hence, must be learned as configurations in their own right. It was through investigating idiomatic expressions, where non-predictability is such a consistent factor, that construction grammarians found that a construction possesses a meaning-carrying element external to the individual words appearing in the construction. This proposes that a construction has its own semantics as well as syntax (Croft, 2003; see Goldberg, 1995 on semantic compositionality). Consider the following construction, casually talked about as "the X'er, the Y'er" construction:

(6) The ADJer (XP), the ADJer (XP)

The construction in example (6) has two different schematic slots that can be occupied by different lexical items. Particular to this construction is a restriction upon the schematic slots to that of adjectives. The X'er the Y'er construction can therefore create different constructs that all share the same meaning-carrying element, for example, *the more the merrier* and *the prettier the crazier* are two examples of different constructs. According to a recent definition by Croft (2005), all constructions that are conventionally used in a speech community should be considered constructions even though they are predictable in form or meaning. He defines a construction as "an entrenched routine ('unit') that is generally used in the speech community ('conventional') and involves a pairing of form and meaning" (Croft, 2005, p. 1). Through this definition, *used to +* $V_{INFINITIVE}$ and *would +* $V_{INFINITIVE}$ are considered constructions as they are conventionally used in the speech community of American English (henceforth, AE) as a means of expressing the habitual past.

In a usage-based model of CxG, grammatical knowledge derives from linguistic experience rather than from a cognitive faculty particular to language. Croft's (2005) definition of constructions as 'entrenched routines' reflects a usage-based approach as it presupposes that our linguistic knowledge is learned through the input and through the frequency of use. Bybee (2013) also asserts that one's experience with language is the primary input for our cognitive organization of linguistic knowledge and that memory storage of the linguistic knowledge of a construction includes both the linguistic and the non-linguistic patterns of association (Bybee, 1995); that is, both information on the inner properties of a construction (form and meaning) and the outer details of context of use (adverbials, pragmatic use, etc.). Hence, as argued by Jensen (2017), the definition can be extended to that of constructions as entrenched routines in a particular speech community which include information on form and meaning but also of context of use.

1.2 *Used to +* VINFINITIVE *and would +* VINFINITIVE *as habitual past constructions*

I propose the following definition, which is a synthesis of definitions put forth in literature on habituality. *Used to +* $V_{INFINITIVE}$ and *would +* $V_{INFINITIVE}$ are HABITUAL PAST constructions that describe past conditions that are viewed as a whole or as past reoccurring events that no longer apply in the present. Syntactically, *used to* and *would* share the feature of restricting the schematic V slot to that of an infinitive verb (henceforth, V_{INF}). Looking at Figure 1, we find that *used to +* V_{INF} only enables one interpretation, namely that of the habitual past, whereas if we look at Figure 2, we find that *would +* V_{INF} enables multiple interpretations where only one is an instance of the habitual past:
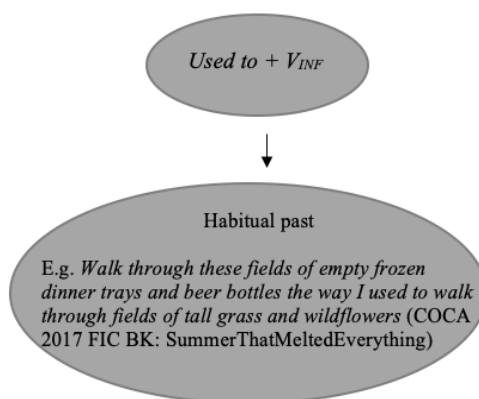
Used to + V_INF

↓

Habitual past

E.g. *Walk through these fields of empty frozen dinner trays and beer bottles the way I used to walk through fields of tall grass and wildflowers* (COCA 2017 FIC BK: SummerThatMeltedEverything)

Figure 1: interpretation of *used to + V_INF*

Would + V_INF

Deontic modality

E.g. *It would be so much easier if you just told her the truth*

Habitual past

E.g. *My parents would go back and forth between Mexico* (COCA 2017 SPOK ABC: 20/20)

Epistemic modality

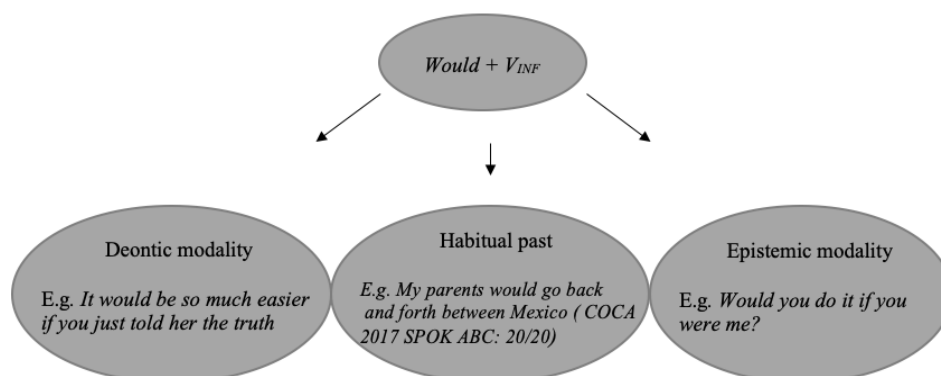E.g. *Would you do it if you were me?*

Figure 2: interpretations of *would + V_INF*

2. Data and methods

2.1 Data collection

The data were drawn from the Corpus of Contemporary American English (henceforth, COCA) (Davies, 2016). COCA contains text and transcribed speech within the period 1990-2017 divided within the following five registers: Academic writing (ACAD), fiction (FICT), magazines (MAG), newspapers (NEWS) and spoken language (SPOK). COCA consists of 570,353,748 words, approximately 20 million words per year. The data sample was exclusively drawn from the 2017-section of the corpus which contains 21,238,237 words due to time limitations.

Preparing corpus data for analysis included weeding out non-instances. One construction that has striking surface resemblance to *used to + V_INF* is the *BE used + to V_INF* construction, e.g. *that is going to partially **be used to help** to close her school* (COCA, 2017, NEWS, Detroit Free Press). This construction was considered a non-instance because the verb phrase (BE *used)* and the adverb

phrase (to V_{INF}) do not belong together in one conventional constellation. In addition, when *would + V_{INF}* was used to express deontic modality or epistemic modality, they were likewise considered non-instances. The 2017 data generated 2,593 instances of cases with *used to + V_{INF}* while cases of *would + V_{INF}* generated 31,818 instances. Out of these were 1059 instances of the habitual past construction *used to + V_{INF}* and 454 instances of the habitual past construction *would + V_{INF}.*

A general limitation of using corpus data is that the number of possible sentences is infinite. Conclusions can only be drawn based on the data sets, not for the entirety of a language itself. As researchers, we therefore work under the assumptions that a corpus is representative of language use in a certain speech community.

However, one of the advantages of using corpus data is that all corpus entries are authentic, naturally occurring data, both spoken and written, which is particularly effective when investigating language in use. Moreover, corpus data also allows for working with language in a quantitative fashion and allows for total accountability, which ensures an unbiased data sample as it prevents conscious selections in the data (McEnery & Hardie, 2012: 15).

2.2 Methodological considerations and methods applied

From an ontological perspective, the method of corpus linguistics presumes language as behavior, which fits well with a usage-based approach. Corpus linguistics subsumes a quantitative research design with an objective approach to the data samples where the basis for interpretations are statistical trends. The inventory of methods comprises statistical significant tests where the main value lies in the breadth of generalizations with no consideration for the depth of the contextual details. Due to the theoretical approach, the paper, therefore, also calls for QUALITATIVE method in order to assess the outer contextual properties of the constructions as well as the inner properties of the constructions to determine their status as interchangeable. The different methods employed in this paper are as follows: (i) distinctive collexeme analysis, (ii) semantic analysis of situation types and (iii) association pattern analysis of adverbial markers in the contextual surroundings of the two constructions.

2.2.1 DISTINCTIVE COLLEXEME ANALYSIS

Distinctive collexeme analysis (henceforth, DCA) is an extension of the method of collocational analysis outlined in Stefanowitsch & Gries (2003). Where collocational analysis is specifically geared to investigating the interaction between different lexemes, DCA is specifically geared to investigating the interaction between a specific lexeme and a grammatical construction (Stefanowitsch & Gries, 2003, p. 209). It proved particularly useful for the assessment of constructional synonymy of the two constructions to employ DCA as it is specifically geared towards investigating the verbal collocates of a construction (a so-called collexeme), and moreover, how the two constructions potentially differ in respect to their preferred collexemes by measuring collostruction strength. Measuring collostruction strength enables a detection of the degree of attraction between a specific lexeme and a construction and the degree of repulsion between a

specific lexeme and a construction. Collostruction strength is measured by the following four frequency values, which serve as input:

- Lexeme in construction X
- Other lexemes in construction X
- Lexeme in construction Y
- Other lexemes in construction Y

The sum of the frequency values is a 2-by-2 table in which the significance of the collostruction strength between a lexeme and a construction is measured by a statistical significance test. In this paper, a log-likelihood test, using Gries (2014), was applied as it allows for a "fine-grained distinction among collostruction strength" (Jensen, 2017, p. 253) and generates a list of collexemes that are ranked according to the collostruction strength to each of the constructions. This allowed a ranking of the 15 most attracted collexemes of each construction. However, it should be mentioned that DCA is lexeme-based (Kuznetsova, 2015) and therefore automatically also has a liking for idiomatic use. One can, therefore, encounter idioms when investigating the preferred lexeme of a construction which automatically will rank high in collostruction strength. Moreover, one also might encounter surface resembling constructions that can interfere with the generated results. Nevertheless, it should be noted that this weakness might actually be a strength in that, if particularly idioms tend to have high collostruction strength scores, it might help to identify potential sub-constructions.

2.2.2 SITUATION TYPES

The definition of *Situation Type*s employed in the *semantic analysis* builds on the widespread classification of situation types in Engberg-Pedersen et al. (2019), and results were generated by investigating the data in correspondence to three semantic dimensions:

- Staticity vs durativity
- Durativity vs punctuality
- Telicity vs atelicity

Based on these three dimensions, a classification of five different situation types emerge:

Table 1. Situation Types (Engberg-Pedersen et al., 2019, p. 151)

Situation type	Static	Durative	Telic
State	Yes	Yes	-
Activity	No	Yes	No
Accomplishment	No	Yes	Yes
Semelfactive[1]	No	No	No
Achievement	No	No	Yes

STATES are classified as denoting situations where something is continuously effective and the duration is ongoing, e.g. *her name is Susie*. ACTIVTIES are classified as denoting situations where, as opposed to states, something is effective only in a durative amount of time and therefore the duration has a beginning and an end, e.g. *she danced all evening*. The separating element of states and activities from accomplishments and achievements is that of telicity. Neither states, as are continuously effective, nor activities have integrated end goals and they are therefore atelic, whereas both accomplishments and achievements have integrated end goals, making them telic. Accomplishments differ from achievements in terms of punctuality. ACCOMPLISHMENTS denote situations where the durative act has an integrated end goal, e.g. *to read a book* or *climb a mountain,* whereas ACHIVEMENTS denote situations that are punctual with no extent in time, but have internal end goals that cause change to the situation instantaneously, e.g. *to win a game* or *to drop a glass on the floor.*

An obvious disadvantage of employing semantic analysis is that there are often borderline cases where the results heavily reflect the researcher's interpretation of the situations that the verbs denote whereas the distinctive collexeme analysis allows for total accountability.

Nevertheless, performing a semantic analysis clearly provides insights on what situation types the verbs in each construction can denote, which is a paramount part of the overall implications of the semantic properties of the verbs appearing in the constructions in question. This was ultimately used to delineate the semantic restrictions pertaining to each construction.

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[1] The iterative aspect (semelfactive) was not considered during semantic analysis as the 'iterative' denotes repetitive action on one single occasion whereas the 'habitual' denotes repetitive action on multiple, different occasions (Pedersen et al., 2019). This deems the iterative inadequate to constitute habit; for example, *the lecturer stood up, used to cough five times, and said* (…) (Comrie, 1976, p. 27).

2.2.3 ASSOCIATION PATTERN ANALYSIS

Working with a corpus makes possible a quantitative approach to the study of the "patterned ways in which speakers use the grammatical resources of language" (Biber, 2012, p. 55). Hence, an association pattern analysis allows for an investigation of the linguistic factors that may affect the use and distribution of different constructions which are said to function interchangeably. Thus, an association pattern analysis was performed to assess the frequency of adverbial presence in the immediate contextual surroundings of the two constructions. All instances of *used to + V_{INF}* (n=1059) and *would + V_{INF}* (n=456) were considered. Frequency (=f) in percentage was calculated by employing simple statistics (frequency (f)/total number of instances (n) * 100) and the results were arranged in pie charts for visual purposes.

3. Results

3.1 Overall frequencies

Table 2 shows that *used to + V_{INF}* makes up 69.9 percent (n=1,059) while *would + V_{INF}* only makes up 30.1 percent (n=454) of the total number of occurrences. According to Quirk & Greenbaum (1972, p. 42), *used to,* compared to *would*, holds status as the most common habitual past construction, which seems to still be the case:

Table 2: Overall frequencies

Construction	Frequency	
	n	%
Used to + V_{INF} (X)	1,059	69.9
Would + V_{INF} (Y)	456	30.1

As similar frequency of use would be expected had they attained the same status in the speech community of AE, it is safe to say that *used to + V_{INF}* is the more commonly used habitual past construction in the speech community of AE. To further investigate the degree to which *used to + V_{INF}* and *would + V_{INF}* show shared or non-shared features, besides the obvious difference in frequency of use, the paper now assesses construction-verb interaction.

3.2 Construction-verb interaction

Table 3 shows the 15 most attracted collexemes for both constructions. The right-hand columns list the collexemes according to the degree to which they are distinctive, and collostruction strength is shown in the right-hand columns. Collostruction strength is listed in decreasing order, ranking the preferred collexemes from highest to lowest. Table 3 shows that the *V_{INF}* slot in *used to + V_{INF}* is predominantly occupied by stative verbs, while the *V_{INF}* slot in *would + V_{INF}* is predominantly occupied by dynamic verbs:

Table 3: Top 15 attracted verbal collexemes

Used to + V_{INF}		Would + V_{INF}	
Lexeme	Collostruction strength	Lexeme	Collostruction strength
be	1265.214	go	1026.466
live	136.606	come	595.474
have	118.599	get	376.686
work	74.961	make	255.863
think	62.857	take	129.664
like	50.087	wake	96.548
sing	50.087	tell	55.579
house	42.915	bring	51.154
love	42.915	do	48.212
buy	35.748	find	48.212
hear	35.748	listen	48.212
joke	35.748	send	48.212
read	35.748	stay	48.212
worry	35.748	say	45.008
know	33.938	sneak	25.431

We can see that *be* ranks the highest in collostruction strength in *used to + V_{INF}* while *go* ranks the highest in *would + V_{INF}*. It is particularly interesting that the collexemes ranking the highest in collostruction strength in the constructions, by and large, are prototypical verbs of their verbal categories, respectively; *be* expresses a state of being; something continuously effective (*stative*) while *go* expresses movement and changes-of-state (*dynamic*):

Turning to the collexemes of *used to + V_{INF}* that rank fairly high, yet significantly less so than *be,* the V_{INF} slot is occupied by dynamic verbs that express some changes-of-state, *work, sing, buy, hear, joke* and *read,* which aligns with what is commonly said about *used to* in the literature, namely that *used to + V_{INF}* attracts both stative and dynamic verbs (Quirk et al., 1985, p. 110).

On the contrary, when looking at the collexemes of *would + V_{INF}* that rank fairy high, yet significantly less so than *go*, the V_{INF} slot is occupied only by dynamic verbs. These findings also align with what is commonly said about *would* in the literature, namely that *would* is predominantly used with dynamic verbs encoding actions or activities (Quirk et al., 1985).

Conclusively, it seems that *used to* attracts both stative and dynamic verbs while *would* only attracts dynamic verbs; all of which supports the view that the two constructions are not instances of constructional synonymy. The following semantic analysis of situation types examines more in

depth any potential semantic restrictions upon the V_{INF} slot in both construction pertaining to staticity, durativity, telicity and atelicity.

3.3 Semantic analysis of situation types

Table 4 shows the difference in situation types denoted in the top 15 attracted collexemes for *used to + V_{INF}* and shows that verbs occupying the V_{INF} slot predominantly denote *states* – accounting for 86.59 percent of the overall token frequency:

Table 4: Situation types in tokens of top 15 collexemes by *used to + V_{INF}*

Used to + VINF	
Situation type	Token frequency
State	426 (86.59%)
Activity	57 (11.59%)
Accomplishment	9 (1.83%)
Achievement	(0%)
	n= 492

However, it is important to consider that *used to + BE* accounts for 73.5 percent of the total token frequency of state verbs, which could suggest it being a sub-construction: *used to BE + noun phrase*. Nevertheless, the findings are still prevailing even if all instances of *used to BE + noun phrase* are excluded as the % column would show the following percentages: verbs denoting states (63.1 percent), verbs denoting activities (31.8 percent) and verbs denoting accomplishments (5.0 percent).

We can also see in Table 4 that *used to + V_{INF}* prefers atelic, durative verbs (activities) in a more significant fashion than telic, durative verbs (accomplishments). Interestingly, the verbs denoting *activities* that occupy the V_{INF} slot, *work, sing, hear* and *joke,* seem to form a class of verbs that prototypically denote activities we culturally perform on a habitual basis that are common to our human experience, especially *work* and *hear*. Consider the following examples:

(7)   For the 61-year-old from New Jersey who used to work at a Wall Street investment firm. (COCA 2017 MAG Scientific American)

(8)   I used to sing in our church choir. (COCA 2017 FIC BK:BlueRibbonBrides)

(9)   We used to hear about that constantly. (COCA 2017 SPOK CNN:Anderson Cooper)

(10) My parents used to joke that they knew what kind of mood I was in as a
      teenager. (COCA 2017 MAG Business Insider)

It seems to be the durativity embedded in the verbs that fits particularly well with the semantics of the construction. Consider the few verbs denoting accomplishments, and that, thus, are telic, *buy* and *read*. We find that they, too, denote actions we perform culturally on a habitual basis:

(11) He used to buy flowers for his fiancé every week. (COCA 2017 SPOK
      NPR:How I Built This)

(12)   Nanny used to read it to me at night. (COCA 2017 FIC
       Bk:KillerBallHoneychurchHall)

Moreover, when assessing the % column for punctual verbs, there is not a single instance of the V_{INF} slot being occupied by an achievement verb. The fact that achievements, denoting punctual events that cause instantaneous change to the situation, do not co-occur with *used to* is a case in point. The semantic components of achievement verbs seem inconsistent with the semantic component of *used to + V_{INF}*. This might explain why we do not encounter, say, *I used to catch fish* in the data sample, but rather, *I used to go fishing with the troops* (COCA 2017 SPOK ABC:Good Morning America). The verbal noun 'fishing' refers to a durative event and by constituting a noun, is viewed as a whole, which fits more naturally with the preferred stativity of *used to* than the punctual, telic verb, 'catch'.

Summing up, *used to + V_{INF}* attracts both stative and dynamic verbs as previously claimed, however, *used to + V_{INF}* prefers its V_{INF} slot to be occupied by stative and durative, atelic verbs, and only some durative, telic verbs, however no punctual, telic verbs.

Turning our attention to *would + V_{INF},* Table 5 shows that *would + V_{INF}* prefers durative, telic verbs:

Table 5: Situation types in tokens of top 15 collexemes by *would + V_{INF}*

Would + V_{INF}	
Situation type	Token frequency
State	0 (0.0%)
Activity	93 (32.1%)
Accomplishment	171 (59%)
Achievement	26 (8.9%)
	n= 290

These findings support what has previously been said about *would,* namely that *would* co-occurs with verbs that denote events that are durative in time (*activity* and *accomplishment*) over that of verbs denoting states (*state*) and punctual verbs (*achievements*). However, it seems reasonable

briefly also to consider the 26 tokens (8.9%) where the V_{INF} slot in *would + V$_{NF}$* is occupied by achievement verbs. Zandvoort (1969, pp. 84-85) observes that *would* is used as the preferred marker of habitual past when the action describes a brief space of time or if it is momentarily. Possibly, this explains why *would*, however statistically insignificant, allows for punctual verbs to occupy the V_{INF} slot, and it also throws some light on why *used to + V$_{INF}$* seems to have a strong repulsion towards achievement verbs (returning to this later in the discussion). Another striking observation is the degree of repulsion *would* has for state verbs (0 tokens) and the degree of attraction *used to* has for state verbs (426). The answer possibly lies in the contextual surroundings of *would + V$_{INF}$* when expressing habituality. Consider the following examples:

(13a)   *I used to live in New York for two years
(13b)   I've lived in New York for two years

(14a)   *I used to think about it for four years
(14b)   I've thought about it for four years

In examples (13a) and (14a), the state verbs *(like, think)* occupy the V_{INF} slot in the past habitual construction *used to + V$_{INF}$*, whereas examples (13b) and (14b) are cases of the preterit expressing habituality. As indicated by the asterisks in examples (13a) and (14a), when the state verbs occupy the V_{INF} slot in *used to + V$_{INF}$*, it seems a case of pleonasm to place a temporal adverbial marker in its surroundings. Contrarily, it seems more natural and not as offbeat for temporal adverbial markers to occur with the preterit as in examples (13b) and (14b). One of the reasons for this is, possibly, that when *used to* co-occurs with a state verb, it is said to only denote "vague implications of the past" (Jespersen, 1964, p. 68). Arguably, this may explain why *used to + state verb*, with its inherent indefiniteness of vague implications of the past, does not likely co-occur with temporal adverbials, which indicate the duration of the habit. This may provide answers for the degree of repulsion *would + V$_{INF}$* has for state verbs. *Would* frequently occurs with temporal adverbial markers; both adverbial markers and frequency adverbs when expressing habituality (Leech, 1987: 54), which is, arguably, the reason for *would + V$_{INF}$* not co-occurring with state verbs. As previously mentioned, state verbs denote states of being that are continuously effective and the presence of adverbials indicating the duration of that state of being, therefore, seems trivial.

Apparent from Table 5 is also that *would + V$_{INF}$* attracts some achievement verbs (8.9 percent) while we see in Table 4 that *used to + V$_{INF}$* does not. Some of the achievement verbs attracted to *would + V$_{INF}$* are, among others, *wake* and *take,* for example*:*

(15)   I would wake up with my heart in my mouth, always confused (…)
        (COCA 2017 FIC FantasySciFi)

(16)   (…) during junior and senior year, he would take a picture and send it
        back to me (…)   (COCA 2017 NEWS Washington Post)

Above examples both show the V_{INF} slot being occupied by verbs denoting achievements. In both cases, temporal adverbials in the contextual surroundings are present (*always, during junior and senior year*). Looking beyond the top 15 most attracted collexemes for *used to + V_{INF}*, in one of the very few instances where the V_{INF} slot is in fact occupied by an achievement verb, a temporal adverbial is in its contextual surroundings as well:

(17) I had to protect Barack Obama, as this guy next to me used to pick the
     feathers off of him all the time (COCA 2017 SPOK FOX:The Five)

This seems to suggest that verbs denoting achievements prefer to occupy the V_{INF} slot in *would + V_{INF}* as the semantic specifications of the construction, for example its preference for temporal adverbials, are more consistent with the semantic specifications of verbs denoting achievements, that is, it seems imperative for punctual events to be placed within a certain timeframe before allowing a habitual reading. Moreover, the fact that *used to + V_{INF}* only vaguely implicates the past also serves as an explanation as to why verbs denoting achievements are inconsistent with the semantic specifications of *used to + V_{INF}*. When an achievement verb occurs with *used to + V_{INF}*, it seems that the indefiniteness embedded in *used to* is not sufficient in indicating the duration of the habit and, therefore, it is in need of a temporal adverbial marker.

As pointed out in the literature, both *would* and *used to* have internal factors which constrain their use. These results suggest that one of these internal factors is a semantic restriction they place upon their V_{INF} slot. *Used to + V_{INF}* restricts its *V_{INF}* slot to be occupied by state verbs and durative, atelic verbs and *would + V_{INF}* to durative, telic verbs. It was also argued that it was the presence of adverbials which had implications for *would + V_{INF}* showing the significant degree of repulsion towards state verbs, while *used to + V_{INF}* clearly showed a strong attraction to state verbs, and also, why *used to + V_{INF}* rejects achievement verbs and likewise, why it is possible for *would* + V_{INF} to occur with verbs denoting achievements.

3.4 Association of adverbial markers
Figure 3 illustrates the percentages in frequency of both constructions co-occurring with a temporal adverbial marker in their immediate contextual surroundings:
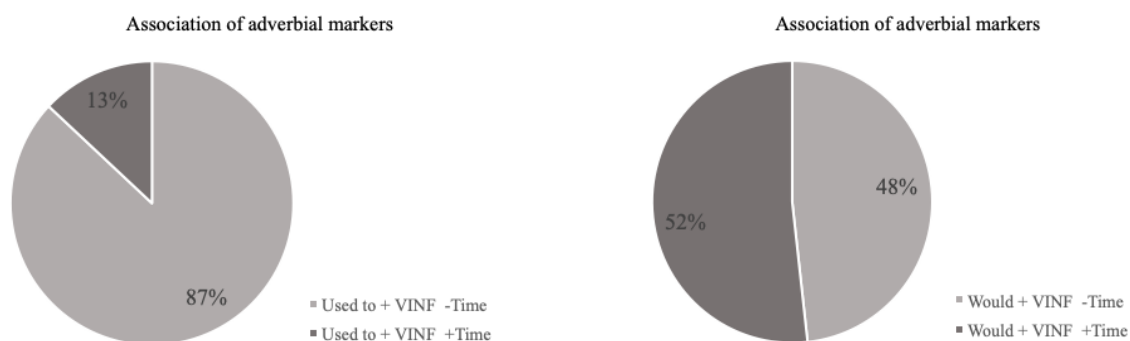
Figure 3: Association of adverbial markers in all tokens of *used to + V_INF* and *would + V_INF*:

Adverbial markers were counted by searching for temporal adverbials such as: *back in the day, in 1991, back then, in the morning,* and by looking at time-indicating adverbs as well, e.g. *before, after, then, during.* Figure 3 shows that *used to + V_INF* co-occurs far less with temporal adverbial markers than *would + V_INF*, as expected. Prevalent was also that *used to + V_INF* often functions as a temporal marker for *would + V_INF* when no other adverbial marker is present, see the following examples:

(18)   My grandmother used to curse in Spanish, and she would say things like (…) (COCA 2017 SPOK ABC:The View)

(19)   It used to be that I would go after folks who did not have rational arguments. (COCA 2017 SPOK Fox: O'Reilly Factor)

(20)   I used to hate it when really skinny women would come on the show and complain (…) (COCA 2017 SPOK NBC: Today Show)

(21)   (…) On the middle-class size, though, it's a lot fuzzier. It used to be proponents would say, everybody in the middle class (…) (COCA 2017 SPOK CBS: This Morning)

Arguably, it seems that *used to + V_INF* serves as a kind of past tense anchor in these instances where the following habitual expression involves *would + V_INF*. Drawing on Leech (1987), *used to* is formally treated as requiring no temporal specification because the past tense is anchored in the marker as its own "built-in" adverbial. The notion of built-in, most convincingly, enables *used to +*

V$_{INF}$ to function as a temporal marker for *would + V$_{INF}$*. Consider Figure 4, which accounts for the frequency of *would + V$_{INF}$* co-occuring with a temporal adverbial marker when instances of *used to + V$_{INF}$* in the immediate surroundings of *would + V$_{INF}$* are included as temporal adverbial markers:
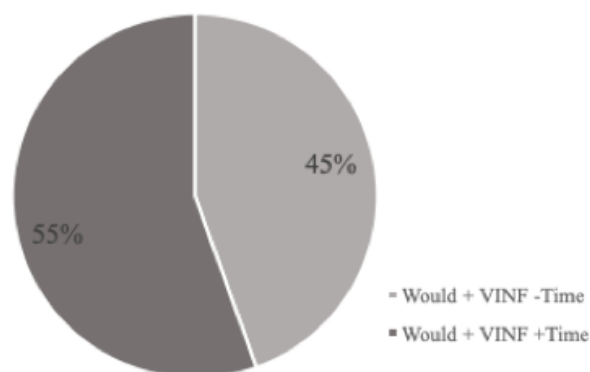

Figure 4: Association of adverbial markers for would + V$_{INF}$ when used to + V$_{INF}$ is included as an adverbial marker:

The findings presented in Figures 3 and 4 seem to support Leech's (1987) claim that *would* in fact does occur frequently with temporal adverbials when expressing habituality and that *used to*, contrarily, requires no temporal specification. Nonetheless, the percentage of –time in Figure 4 prompts the question of whether the preterit perhaps serves as a past tense anchor for *would + V$_{INF}$* in the instances where an adverbial marker is not present or if an adverbial marker is in fact present in the remote contextual surroundings of *would + V$_{INF}$*. Another worthwhile thing to consider is whether the fact that *would + V$_{INF}$* enables multiple interpretations, as previously mentioned, plays a role in the reasons why it occurs with temporal markers in such a significant fashion when expressing the habitual past. These considerations all call for a more in-depth analysis of the contextual details of the two constructions.

Conclusively, the percentage of +time for the two constructions indeed show that *would $_+$ V$_{INF}$* co-occurs with a temporal marker far more frequently than *used to + V$_{INF}$* and the claim that the two constructions should be interchangeable is refuted.

Concluding remarks

After a critical assessment of the internal and external linguistic factors constraining the use of the two constructions, it is concluded that *used to + V$_{INF}$* and *would+ V$_{INF}$* are not instances of constructional synonymy. Firstly, a difference in the frequency of use in the speech community of American English suggests that *used to + V$_{INF}$* is the most commonly used habitual past marker. Secondly, it was found that an internal factor affecting the use of the two constructions pertained to a semantic restriction placed upon the *V$_{INF}$* slot in both constructions. Thirdly, the difference in the

frequency of co-occurrence with a temporal adverbial marker seems to suggest that *would + V_INF* requires some temporal specification whereas *used to + V_INF* has built-in temporal specification, which allows *used to + V_INF* to function as a temporal marker for *would + V_INF*. Finally, studying structural variants with synonymous-like semantics through the lens of usage-based construction grammar is imperative as it allows for an integrated investigation of the linguistic factors that affect the use of certain grammatical phenomena, and, perhaps most importantly, that linguistic factors like association patterns and conventional context of use are seriously considered fundamental elements of the speaker's linguistic knowledge. Hopefully, more research on structural variants with synonymous-like semantics should be carried out through this perspective.

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