

VARIABILITY AND SEMANTICS OF PAST  
HABITUALITY IN OREGONIAN ENGLISH

by

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## ABSTRACT

### VARIABILITY AND SEMANTICS OF PAST HABITUALITY IN OREGONIAN ENGLISH

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What exactly do Oregonians mean when they say that they “used to” do something? There are three constructions speakers use to convey past habituality in English. These include two overt forms, *used to* + infinitive (e.g., “We used to go to California every summer”) and *would* + infinitive (e.g., “We would go with my cousin”), as well as the preterit (e.g., “I went to the park sometimes”). Data from linguistic interviews established that in Oregonian English, *used to*, which is the form typically associated with past habituality according to traditional grammar accounts, is used in less than 3% of past habitual verb phrases (McLarty, Farrington and Kendall 2014). These results stand in stark contrast to studies of past habituality in other dialects.

The relative infrequency of *used to* could be explained in part by a semantic distinction between *used to* and *would* in Oregonian English, which precludes the use of *used to* in certain contexts. To explore possible differences in meaning, I analyze a random subsample of 383 past

habitual tokens collected from interviews with native English-speaking Oregonians. This statistical analysis is paired with a survey in which Oregonians assess the meaning of various example sentences.

Multivariate analysis of the production data reveals that contrastive past habitual utterances significantly favor *used to* relative to ambiguous and non-contrastive utterances ( $p < 0.001$ ). Other linguistic and discourse-related factors, including stativity and discourse position, are also statistically significant predictors of past habitual forms.

Survey results support this analysis, indicating that speakers of Oregonian English interpret *used to* as having a specifically contrastive meaning. The responses of non-Oregonian participants in the study largely parallel those of Oregonian respondents, suggesting that this semantic distinction may not be unique to Oregon English.

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## I. INTRODUCTION

In English, there are three different forms speakers use in order to convey past habituality. These forms, described in (1) a.-c., include two overt forms, *used to* + infinitive and *would* + infinitive, as well as the preterit, or simple past.

- (1)
- |    |  |                          |
|----|--|--------------------------|
| a. | My sister and I used to go to baseball games every summer. | [ <i>used to</i> + inf.] |
| b. | We would go with my cousin.                                | [ <i>would</i> + inf.]   |
| c. | We went to the park sometimes.                             | [preterit]               |

According to Tagliamonte and Lawrence (2000), the variable use of these forms has not been the object of major study, as none of these forms are stigmatized in most varieties of English. For example, (1) a. “My sister and I used to go to baseball games every summer,” is not perceived by speakers to be more or less grammatical or appropriate to use than (1) b. “We would go with my cousin.”

McLarty, Farrington and Kendall (2014) found that Oregonian English speakers overwhelmingly use *would* and the preterit to encode past habituality, while *used to*, the form typically associated with past habituality according to traditional grammar accounts, is used in less than 3% of past habitual verb phrases. This extreme rarity of *used to* stands in stark contrast with studies of past habituality in other dialects of English, which exhibit much higher frequencies of *used to* even in dialects that strongly favor *would* (McLarty, Farrington and Kendall 2014, Van Herk 2012).

Semantic differences between *used to* and *would* in Oregonian English, which limit *used to* to a smaller range of specific contexts, could help to account for the relative infrequency of *used to* in Oregon. Investigating semantic explanations for the distribution of *used to* and *would* in Oregon could contribute to a greater understanding of the variability of past habituality in Oregonian English.

To determine possible factors that could account for the distribution of past habitual forms in Oregon, I coded a subset of data drawn from 30 sociolinguistic interviews with native English-speaking Oregonians for a number of possible linguistic constraints. Multivariate analysis of this data was coupled with a survey which accessed Oregonians' and other native English speakers' perceptions of how speakers encode past habituality. This analysis established that contrastive past habitual utterances significantly favor *used to* relative to both non-contrastive and ambiguous utterances, which suggests that *used to* is not semantically identical to other past habitual markers, but carries a more specific meaning in Oregonian English. These findings also indicate that other semantic and discourse factors, including stativity and discourse position, also influence the variability of past habituality in Oregon.

This thesis is organized into six sections. In section II, I will provide a review of critical literature relating to past habituality, focusing on semantic interpretations of *used to*. Section III offers a description of the production data and survey used to carry out this study, including the linguistic factors under investigation and survey methods used. In sections IV and V I will describe the findings from the production and perception studies, respectively; these sections will include the results of the multivariate analysis and an account of participants' responses to the survey questions in light of those findings. Lastly I will offer some concluding remarks in section VI, placing this study in the larger context of language change and what these results might mean

for the future of past habituality in Oregon.

## II. REVIEW OF LITERATURE

*Used to*, which stems the word *use*, a borrowing from Old French, became common around 1400 as a construction meaning “be accustomed to doing” (Bybee, Perkins and Pagliuca 1994, 155). While this construction was initially used exclusively with human subjects in both the present and past, it had extended to be used with inanimate subjects by the 17th century; over time the form grammaticalized in the past and faded from use in the present (Bybee, Perkins and Pagliuca 1994). Bybee, Perkins and Pagliuca (1994) also note that *used to* was originally used only with active verbs; its meaning eventually extended to allow for its use with stative verbs in order to convey a past state (e.g., “My father *used to have* a car like that”).

The semantics of *used to* and *would* can help to provide a range of possible explanations for the distribution of past habitual forms in Oregonian English. While *used to* and *would* are considered to be often interchangeable in English (Tagliamonte and Lawrence 2000, 324), studies of past habituality in Northern England as well as Newfoundland and West Virginia (Van Herk and Hazen 2011, Van Herk 2012) indicate that there are significant differences in the environments in which speakers use simple past, *used to* and *would*.

These differences are in part the effect of syntactic as well as semantic constraints. For example, while *would* is thought to occur frequently with temporal adverbials (e.g., *always*, *never*, *all the time*), *used to* requires no such specification, and is indeed used to “designate ‘vague implications of the past’” (Jespersen 1964, cited in Tagliamonte and Lawrence 2000,

340). However, differences in frequency according to other variables such as person and stativity (Tagliamonte and Lawrence 2000) suggest that other semantic factors also affect speakers' preference for one form over the other.

Different semantic interpretations of *used to* in the Pacific Northwest could help to account for the relative rarity of *used to* in Oregon. While speakers associate both *used to* and *would* with past habituality, Oregonians' overwhelming preference for *would* over *used to* could indicate that these forms are not semantically identical to native Oregonians.

While both *used to* and *would* “convey the notion that ‘the circumstance in question existed in the past, but has ceased’” (Schibsbye 1970, cited in Tagliamonte and Lawrence 2000, 330), Tagliamonte and Lawrence (2000) and Comrie (1976, 28-29) note that this implied contrast is particularly evident with *used to*. Different levels of implied discontinuance for *would* and *used to* could help to explain the frequencies of these constructions in Oregon. One such possible difference is that while *would* can be used to indicate most past habitual events, *used to* is reserved only for events that are clearly not taking place anymore; such a contrast could be either stated explicitly in the utterance or determined through the larger context.

This difference in the meaning of *used to* as an explicitly contrastive construction has not been explored in similar studies of past habituality in other English dialects. Indeed, in describing past habituality in York, Tagliamonte and Lawrence note that “used to does not appear to have undergone much semantic change since its original meaning is still very close to its grammatical meaning” (2000, 328). While Tagliamonte and Lawrence discuss the historical semantic extension of *used to* to include stative verbs and inanimate subjects, they do not explore the idea of regional variation in the meaning of *used to* today, which could indicate more recent or ongoing semantic change.

Binnick (2005) offers an entirely different interpretation of past habitual constructions in English, providing a more narrow definition of habituality that could account for some of the possible semantic differences between *used to* and *would* in Oregon. According to Binnick, *would* is the only past habitual marker in English, while *used to* is neither habitual nor a past tense form (2005, 340). While the *would* construction is inherently habitual in meaning, *used to* is analogous not to *would* but to the present perfect, serving as a deictic tense that relates “the time of the eventuality to that of the speech act” (Binnick 2005, 349). Whereas the present perfect connects a past event or state to the present, *used to* serves to “divorce a past state or series of events from the present state of affairs” (2005, 366). Binnick uses this analogy with the present perfect to explain the distribution of *used to*, noting that it is particularly common with first-person and animate subjects and with non-stative predicates (Tagliamonte and Lawrence 2000; Binnick 2005, 349).

Like Tagliamonte and Lawrence (2000), Binnick writes that traditionally *used to* “has been taken to imply [...] that some past condition no longer obtains” (2005, 345). Here Binnick stresses that the implication that the event no longer takes place is “not part of the meaning of the expression itself but a conversational implicature” (2005, 345). Thus, if a speaker says that they “used to skateboard,” while a listener may at first assume that the speaker no longer skateboards, the speaker could also say “I used to skateboard, and I still skateboard” without being self-contradictory.

That *used to* serves to mark a difference between the current state of affairs and events that took place in the past could help to explain the drastic difference in the frequency of *used to* and *would* in Oregon, particularly if this semantic distinction is stronger for speakers of dialects with a preference for *would*, including Oregonian English (McLarty, Farrington and Kendall

2014). While existing literature on past habituality suggests that the contrastive meaning of *used to* is merely a conversational implicature of the form (Binnick 2005, Comrie 1976, Leech 1987), *used to* may be used in Oregonian speech chiefly to refer to events that no longer take place. Thus, if a speaker were to say “I used to skateboard, and I still skateboard,” Oregonian speakers with a significant preference for *would* would indeed interpret the speaker’s statement as contradictory or misleading.

Comrie (1976) demonstrates this idea with the example sentence “Bill used to be a member of a subversive organization” (1976, 29). In the absence of any explicit statement to the contrary, speakers will interpret this sentence to mean that Bill is no longer a member of the organization in question. Indeed, such a statement would be considered deliberately misleading if the speaker either knew that Bill was still a member or was unsure of his current affiliation with the organization (Comrie 1976, 29).

If *used to* is interpreted by Oregonians to implicate that an event no longer takes place or that a condition no longer holds, Oregonians may be more likely to reserve *used to* for utterances for which they are more certain of this contrast, so as to avoid the appearance of being deliberately misleading. Speakers are most likely to be certain of the degree of contrastiveness in utterances for which they have first-hand knowledge, particularly utterances with first person subjects or objects.

Curnow (2002) notes that cross-linguistically, evidential markers and qualifiers specifying the speaker’s source of information occur more frequently in sentences with first-person referents than in sentences with only third-person referents. This could be related to the stake speakers have in coming across as honest in conversation. Indeed, Chafe (1986) notes that “accuracy on the part of the speaker is a crucial element in the public reputation of individuals”

(Chafe 1986, 114). Oregonians' overwhelming preference for *would* over *used to* could therefore be due in part to an interaction between the contrastive implication of *used to* and the speaker's personal deixis in relation to the utterance, in which case *used to* may be used less frequently in utterances without first-person referents relative to utterances in which the speaker is directly involved.



### III. STUDY DESCRIPTION

The main data set under investigation includes over 3000 tokens of past habituality from recorded sociolinguistic interviews with thirty native Oregonians. The speakers range in age from 19 to 95 at the time of the interview, with thirteen men and seventeen women. This data, as in Tagliamonte and Lawrence's study (2000), was then coded for a number of linguistic and demographic factors which could be significant predictors of the form used in each utterance (*used to*, *would* or the preterit). These variables are enumerated in Table 1 below.

---

**Table 1: Factors coded in main data set (N=3182)**

---

<b>Linguistic factors</b>
Grammatical person: first, second or third
Sentence type: question or statement
Sentence polarity: affirmative or negative
Passivity: active or passive
Temporal adverbial: present or absent
Discourse position: first, second, later or unsequenced
Stativity: stative or non-stative
Animacy: human, animate, or inanimate
<b>Demographic/social factors</b>
Gender of speaker: male or female
Age of speaker
Ethnicity of speaker: speakers self-identified, but were grouped into white and non-white binary for analysis

---

A smaller subset of this data was then analyzed in greater detail in order to determine how *used to* interacted with the other past habitual forms. This subsample of tokens included all

of the instances of *used to* from the original data set, coupled with twice as many tokens each of *would* and the preterit. This subsample, consisting of 383 tokens in total, was further coded for a range of semantic and discourse related variables described in (2).

- (2) Semantic and discourse variables coded in data subset
  - a. Transitivity
  - b. Inchoativity
  - c. First-person involvement in utterance
  - d. Degree of contrastiveness

The degree of contrastiveness of the utterance was divided into five different levels described in Table 2.

**Table 2: Levels of Contrastiveness**

<b>EC</b>	Explicitly contrastive	<i>I used to have friends in Eugene, but they've all passed away.</i> (OJC0040d: 85 YO female, Corvallis/Junction City, OR)
<b>IC</b>	Implied contrastive	<i>I liked to ride on the tractor with my dad.</i> (OORb210d: 52 YO male, McMinnville, OR)
<b>AM</b>	Ambiguous; could still be ongoing.	<i>Christmas was always a big thing for us.</i> (OJC0030d: 48 YO male, Junction City, OR)
<b>INC</b>	Implied non-contrastive; likely applies today	<i>[San Diego] was really hot.</i> (OORb230d: 19 YO male, Portland, OR)
<b>ENC</b>	Explicitly non-contrastive	<i>He used to teach at U of O—Dr. Jenkins. And I think he still does.</i> (OORb031d: 22 YO female, Corvallis, OR)

A multivariate analysis of this production data was coupled with a survey (Appendix A: Language in Oregon Survey) in which native English speakers assessed the meaning of various

example sentences that include *used to* and *would*. These questions aimed to access what, exactly, *used to* entails for native English speakers, and whether its meaning is different for Oregonians compared with other speakers. Significant differences in the responses of native Oregonians and other English speakers could help to shed light on ongoing semantic change in Oregonian English.

The survey also included questions about other dialectal features of English gathered from the Yale Grammatical Diversity Project, the Cambridge Online Survey of World Englishes and the Harvard Dialect Survey. These questions were added to the survey in order to avoid priming participants to think about past habituality, which could influence participants' responses to the survey questions. The language questions were also randomized, and the order of multiple choice answers rearranged in order to reduce question order bias.

Survey questions related to past habituality were of four major types. First, multiple choice questions asked participants to select the form they believed would be most suitable for an example sentence given a particular context. These questions indicated which forms speakers believe that they produce in speech, which could then be compared to the production data. These questions also varied from one another slightly in placement and length of temporal adverbials and in person.

The second set of questions aimed to look at the conscious effect of specific linguistic constraints on the encoding of past habituality. Participants were given a specific excerpt from the recorded sociolinguistic interviews, with a blank space left for the verb; participants were then asked to rank the three possible past habitual forms in the order of which would be most suitable in that utterance.

Another set of questions looked specifically at the implied levels of contrastiveness speakers associated with past habitual forms, particularly with *used to*. These questions asked participants to rate the likelihood that a given action or event was still taking place at the time of the utterance.

Two related sliding-scale questions asked participants to consider a given sentence containing *used to*. Participants were then asked to rate how lied to or misled they would feel if the event in the sentence were still taking place. If participants from Oregon reported feeling very misled by the use of *used to* to describe a continuing event, it could indicate that *used to* carries an explicitly contrastive meaning for Oregonian English speakers. These questions were in both first person and third person in order to shed light on whether speakers and listeners assume a stronger level of contrastiveness in the meaning of *used to* in first person.

The last set of questions asked participants to rank four different ways to complete the following sentence that included *used to*, “*Bill used to skateboard.*” The ways of completing the sentence corresponded roughly with varying levels of contrastiveness.

#### IV. RESULTS OF PRODUCTION STUDY

In the larger data set, the rarity of *used to* meant that the distribution of *would* was largely the opposite of that of the preterit and vice versa; *used to* did not appear frequently enough to make any meaningful judgments as to how it interacts with other past habitual forms in Oregonian English.

To mitigate this problem, we coded a smaller subset of the data in greater detail. This subset of 382 tokens included all 76 instances of *used to* from the thirty interviews in the larger data set as well as 152 randomly selected tokens each of *would* and the simple past. In coding this data, two more instances of *used to* were added to the data. As this sample was considerably smaller than the original data set, fewer factors were found to be statistically significant predictors of the past habitual markers used, particularly in predicting the use of *would* and the preterit.

---

**Table 3: Semantic and discourse-related variables coded in past habituality subsample (N=383)**

---

<b>Contrastiveness</b>
Explicitly contrastive
Implicitly contrastive
Ambiguous
Implicitly non-contrastive
Explicitly non-contrastive
<b>Type of Verb</b>
Stative
Non-stative

---

Transitive
Intransitive
Inchoative
Non-inchoative
<b>First-person involvement in utterance</b>
First person subject, object or other
No first-person involvement
<b>Animacy of subject</b>
Human
Animate
Inanimate
<b>Discourse position</b>
First in sequence
Second in sequence
Later in sequence
Unsequenced

### Multivariate Analyses

In this sample, there were 285 tokens in which *would*, *used to* and the preterit were all possible, with 51 tokens of *used to*, 83 simple past and 151 *would*.

Multivariate analysis of these data using R revealed that the only significant factors that predict *used to* are discourse position and contrastiveness. Table 4 presents the results of the best statistical model for predicting *used to*.

Factor	Estimate	Std. Error	Pr(> z )
Discourse position: 1 <sup>st</sup> (not unsequenced)	-0.9136	0.5588	0.102084
Discourse position: later (not unsequenced)	-2.3254	0.8699	0.007510
Discourse position: second (not unsequenced)	-1.1082	0.6044	0.066723
Contrastive: explicit (not ambiguous)	3.7229	0.7563	<0.00001
Contrastive: explicitly non-contrastive (not ambiguous)	19.8369	5796.0237	0.997269
Contrastive: implicitly contrastive (not ambiguous)	1.0905	0.6878	0.112876
Contrastive: implicitly non-contrastive (not ambiguous)	-13.5284	789.9812	0.986491

Later tokens are less likely to use *used to* than are unsequenced tokens ( $p < 0.01$ ), as are first and second-position tokens, although these do not reach significance (at  $p < 0.05$ ).

Contrastive utterances also significantly favor *used to* relative to ambiguous and non-contrastive utterances. Both the five-way distinction of contrastiveness and a simpler three-way split of contrastiveness were statistically significant predictors of *used to*; Table 4 shows that explicitly contrastive utterances significantly favor *used to* relative to ambiguous utterances ( $p < 0.00001$ ).

Given the decreased number of tokens for *would* and the preterit in the subset data, there were few statistically significant factors that predicted either *would* or the preterit. Table 5 presents the results of the best statistical model for predicting *would*.

<b>Factor</b>	Estimate	Std. Error	Pr(> z )
Discourse position: 1 <sup>st</sup> (not later)	-0.9794	0.5331	0.066184
Discourse position: 2 <sup>nd</sup> (not later)	-0.2794	0.5208	0.591577
Discourse position: unsequenced (not later)	0.4593	-4.751	<0.0001
Stativity: stative	0.3707	-3.651	<0.001

Discourse position and stativity were the only significant factors predicting the use of *would* in this subsample. Unsequenced tokens are less likely to use *would* than later tokens ( $p < 0.0001$ ), as are first and second position tokens, although these do not reach significance. Stative verbs also dispreferred *would* relative to non-stative verbs ( $p < 0.001$ ).

The results for the preterit were largely the opposite of the findings for *used to* and *would*. Discourse position, stativity and contrastiveness were all significant factors that predicted the preterit. Simple past was favored in unsequenced positions in the discourse ( $p < 0.01$ ) and with first position tokens, although this did not reach significance. Stative verbs strongly favored the preterit relative to non-stative verbs ( $p < 0.0001$ ). Using a model that takes into account a five-

way contrastiveness distinction, explicitly contrastive sentences significantly disfavored the preterit relative to ambiguous sentences ( $p < 0.001$ ).

Other semantic variables including animacy, transitivity and the presence of an inchoative verb were not found to be significant predictors of *used to*, *would* or the simple past for this data. While sentence polarity was not found to be a significant factor, there were no negative tokens of *used to* in the data set, suggesting that negative sentences highly disfavor *used to* in Oregonian English.

### **Discourse Position**

Discourse position was a significant factor in predicting each of the past habitual forms. This corresponds to the results of other studies of past habituality in English, including findings by Tagliamonte and Lawrence, who note that past habitual sequences tend to have a consistent internal structure, which favors *used to* at the beginning of discourse sequences and *would* and the preterit in subsequent tokens within the sequence (Tagliamonte and Lawrence 2000, 342). Here, this pattern appears to hold for *would*, which is significantly favored in later tokens. This pattern is not reflected in the distribution of *used to* in Oregonian English, which is significantly favored in unsequenced rather than first-position tokens.

### **Stativity**

Stativity was also a significant factor that predicted *would* and the simple past. Stative verbs significantly disfavored *would* ( $p < 0.001$ ) and favored the simple past ( $p < 0.0001$ ) relative to non-stative verbs, while stativity was not a significant factor in predicting *used to*. These results differ from Tagliamonte and Lawrence's findings that stative verbs disfavor *used to*, which Tagliamonte and Lawrence attribute to *used to*'s origins as a construction reserved for



non-stative verbs with human subjects (2000, 339). While Tagliamonte and Lawrence did not find significant effects for stativity on the frequency of *would* in York, they do note that *would* has a conditional reading with some statives, e.g. *I would live in York*, which leads to the perception that habitual *would* is reserved for non-statives (2000, 331). Indeed, these conditional statives formed a large portion of the tokens for which *used to* and the preterit were the only possible past habitual forms.

### **Contrastiveness**

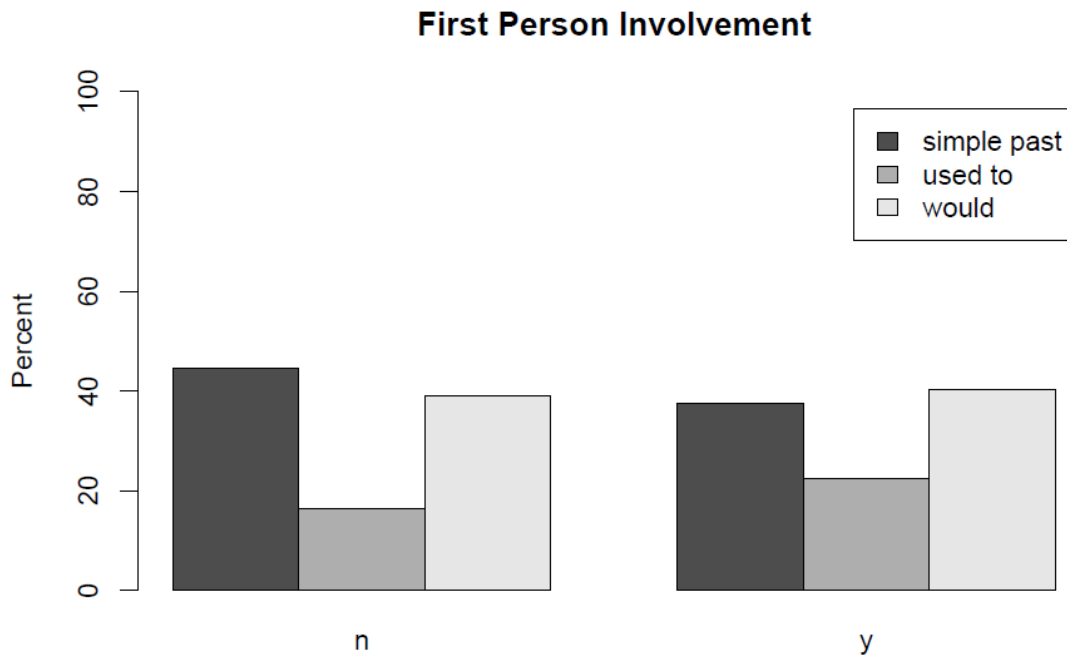
Contrastiveness was a significant factor in predicting *used to*. With a five-level model of contrastiveness (including explicitly and implicitly contrastive, ambiguous, and explicitly and implicitly non-contrastive sentences), explicitly contrastive sentences favored *used to* relative to ambiguous sentences ( $p < 0.00001$ ), as did implicitly contrastive sentences, although this was not significant (at  $p < 0.05$ ). With a simpler three-level model that combined explicitly stated and implied contrast, contrastive sentences were still found to favor *used to* relative to ambiguous sentences, although at lower levels of significance than the five-level model ( $p < 0.05$ ).

This finding could help to account for the distribution of past habituality in Oregonian English, specifically the rarity of *used to* relative to *would* and the simple past. Oregonians' overwhelming use of *used to* in explicitly contrastive rather than ambiguous sentences supports the hypothesis that Oregonians make a semantic distinction between *used to* and *would* on the basis of contrastiveness. Depending on the level of implied discontinuance Oregonians associate with *used to*, this difference in contrastiveness could lead Oregonian English speakers to disfavor *used to* in contexts that are either not contrastive or only implicitly contrastive.

## Person

While person was a significant predictor of *would* in the larger data set, in which speakers favored *would* over the other past habitual forms with second-person subjects, person was not a significant predictor of any past habitual forms in the subsample. First-person involvement in the sentence, in which the speaker was included as a subject, object or other referent in the discourse, was also not a significant predictor of past habituality in Oregonian English.

This appears to conflict with the hypothesis that Oregonians are more likely to use *used to* in first-person sentences, in which speakers have a clearer idea of whether the event described continues to the time of the utterance. The distribution of past habitual forms with first-person involvement is described in Figure 1 below.



**Figure 1.** Relative percentages of past habitual forms with first-person involvement

While first-person involvement was not found to be a significant factor in predicting *used to*, tokens of *used to* were more common in sentences with first-person involvement than without. As this was not statistically significant in the multivariate analysis, this distribution could be coincidental, or it could indicate a positive association between Oregonians' contrastive interpretation of *used to* and the first person. If *used to* has a strong contrastive interpretation to Oregonians, speakers may be more likely to reserve that past habitual form for instances in which they are more certain of whether the event in question is still taking place. This level of certainty would be higher on average for sentences in which the speaker had first-hand knowledge.

### **Social Variability and Past Habituality**

None of the social factors included in the study, including age, sex and race, were reliable predictors of *used to*, *would* or the preterit. While non-white speakers in the data set used more tokens of *used to* than white speakers, "non-white" is not likely to be a relevant category in terms of linguistic variation in Oregon. There were also only five non-white speakers in the study, leading to possible issues due to the sample size.

The oldest speakers in the study did use more tokens of *used to* than the youngest speakers, but the difference was not significant. Although adult speakers of all ages contributed to both the production and perception studies (born from 1918-1995), the majority of participants were born in 1989 or later. While the speaker with the strongest preference for *used to* was one of the older speakers, it remains unclear whether the preference for *would* over *used to* is a longstanding feature of Oregonian English, or whether the distribution of *used to* is significantly different among Oregonians of different ages, with younger speakers using less of the form than older speakers.

## V. RESULTS OF PERCEPTION STUDY

### **Study Sample**

The perception study of past habituality was taken by seventy-one participants, forty of whom spent all or most of their childhood in Oregon. These speakers were classified as “native Oregonians” for the purposes of the study, whereas all other participants were classified as “non-Oregonians.” Of the Oregonian participants, twenty-seven were female, twelve were male, and one speaker identified as non-binary. These participants were born between 1953 and 1995, with the majority of participants born in the early 1990s. The most common birth years of Oregonian study participants reported were 1992, 1993 and 1994. The majority of the Oregonians in the study considered their hometowns to be suburban (53%), with roughly an equal number of participants from either an urban or rural hometown (25% and 23%, respectively).

The thirty-one non-Oregonian participants in the study were predominantly from other states in the western U.S. Fifteen were from California, and two considered cities in Oregon to be their hometowns, despite not having grown up in the state. Other western states represented include Hawaii, Idaho, Washington, Nevada and Minnesota. The remaining participants were from Arkansas, Illinois, Indiana, Kentucky, North Carolina, New York, Pennsylvania and Rhode Island.

Of these participants, nineteen were female and twelve were male. The median age of non-Oregonians was higher than that of the Oregonians; the year of birth of these participants

ranged from 1927 to 1995, with a median birth year of 1989. Like the Oregonians in the study, the majority of non-Oregonian participants came from suburban backgrounds (61%), although more people reported coming from an urban (26%) than rural (13%) hometown.

## Survey Results

### Multiple Choice: selection of past habitual form

In this section, participants were given a specific scenario and instructed to select the sentence that sounded most natural for them to describe the given situation, as in (3).

(3) *You and your siblings frequently played video games together when you were a child, but you don't anymore. You are telling someone about it. Please select the sentence that sounds most natural for you to describe this situation.*

These scenarios are described in (4) below:

- (4)
- a. When you were growing up, your father traveled to California to visit relatives every summer.
  - b. You and your siblings frequently played video games together when you were a child, but you don't anymore.
  - c. In the past, you took the bus to work every day. However, you recently bought a car and now you drive to work.
  - d. You and your friends frequently went swimming in the lake when you were in elementary school and you are telling someone about it.

For each of the given scenarios described in (4), *used to* was the most common response selected by both native Oregonians and non-Oregonians. The similar responses for both Oregonians and non-Oregonians for these questions confirms that native English speakers, including Oregonians, strongly associate *used to* with past habituality.

Further, these results suggest that there is a large discrepancy between speakers' perceptions of how they encode past habituality and the actual frequencies of the forms they use (in the main data set of over 3000 tokens of past habituality, *used to* represented just 2.4% of past habitual tokens used).

However, the distribution of the forms selected was different for each of the example sentences. Figures 2 and 3 display Oregonians' and non-Oregonians selections, respectively, for scenario (4) a.

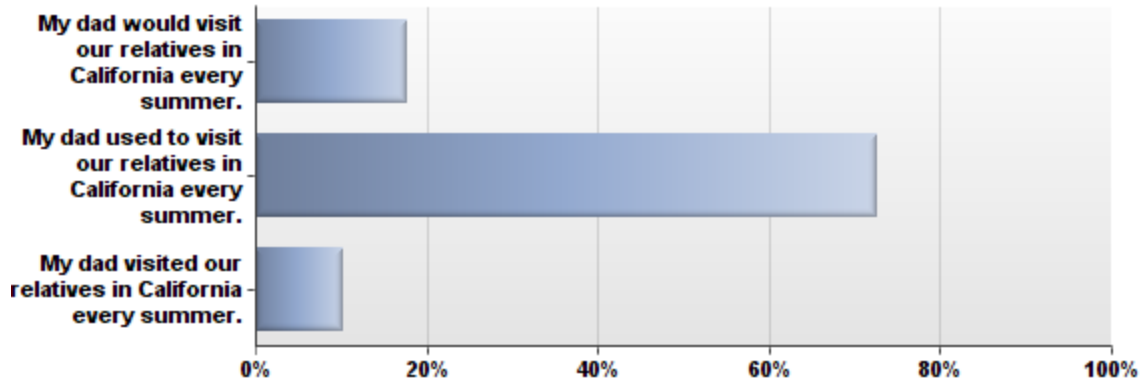


Figure 2. *When you were growing up, your father traveled to California to visit relatives every summer:* Oregonians

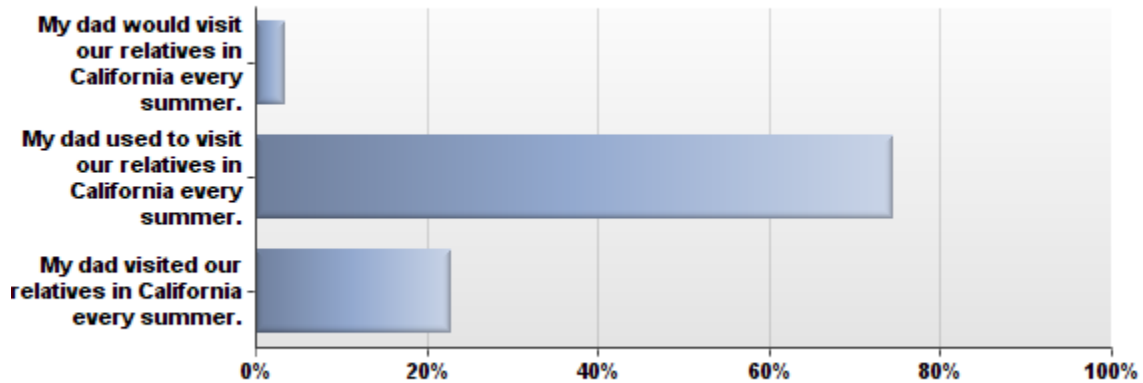
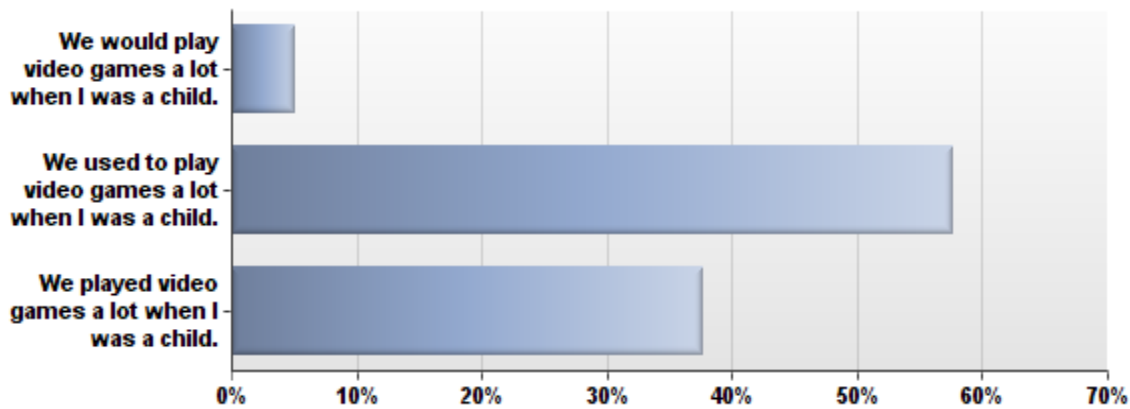


Figure 3. *When you were growing up, your father traveled to California to visit relatives every summer:* Non-Oregonians

As depicted in Figures 2 and 3, *used to* was by far the most likely choice of both Oregonians and non-Oregonians for this scenario. 73% of Oregonians selected *used to* as the most natural form to describe this situation, compared with 74% of non-Oregonians. However, the distribution of *would* and the preterit were very different for these two groups. Of the non-Oregonians who selected a form other than *used to*, all but one selected the preterit as the most natural form. 18% of Oregonian respondents selected *would*, and 10% selected the preterit.

Figure 4 displays the distribution of Oregonians for (4) b.

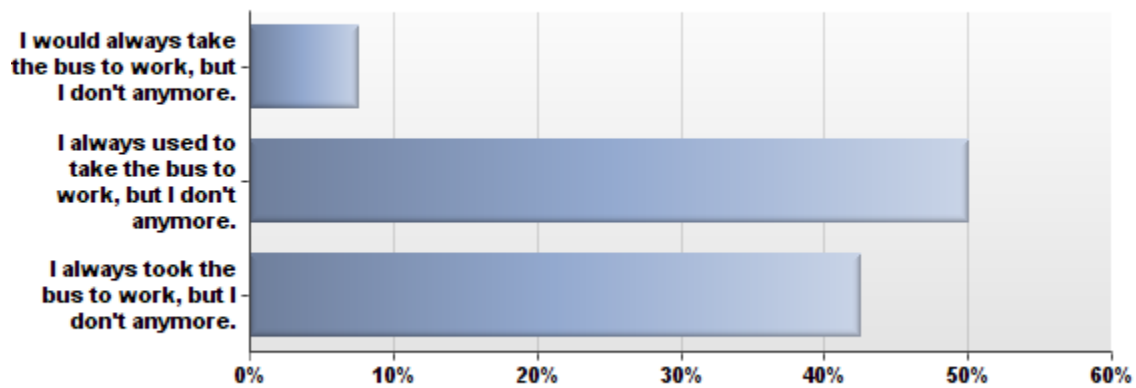


**Figure 4.** *You and your siblings frequently played video games together when you were a child, but you don't anymore:* Oregonians

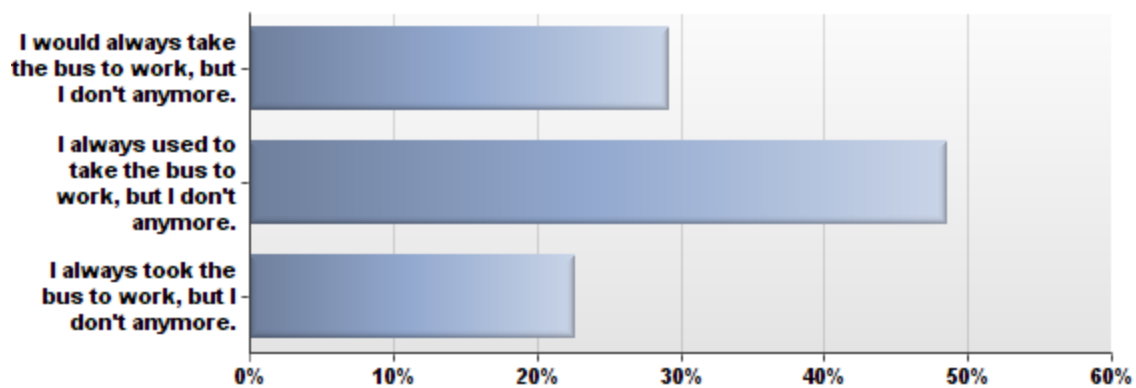
Oregonians and non-Oregonians had similar distributions of selected forms for this given scenario. 58% of native Oregonians selected *used to*, while 38% selected the preterit and 5% chose *would*. 61% of non-Oregonians chose *used to* and 39% chose the preterit. None of the non-Oregonians in the study selected *would* as the best choice for the situation described.

While the possible answers participants could select were not explicitly contrastive, the given scenario for this question made it clear that the action described did not continue to the present with the explicitly contrastive statement: “but you don’t anymore.”

Figures 5 and 6 display the results of Oregonians and non-Oregonians, respectively, for scenario (4) c.



**Figure 5.** *In the past, you took the bus to work every day. However, you recently bought a car and now you drive to work: Oregonians*



**Figure 6.** *In the past, you took the bus to work every day. However, you recently bought a car and now you drive to work: Non-Oregonians*



For (4) c., 50% of native Oregonians selected *used to*, while 43% selected the preterit and 8% chose *would* as the most natural sounding option to describe the scenario. 48% of non-Oregonians chose *used to* and 23% chose the preterit, while 29% selected *would*.

Figures 7 and 8 display the distributions of Oregonians and non-Oregonian selections, respectively, for (4) d.

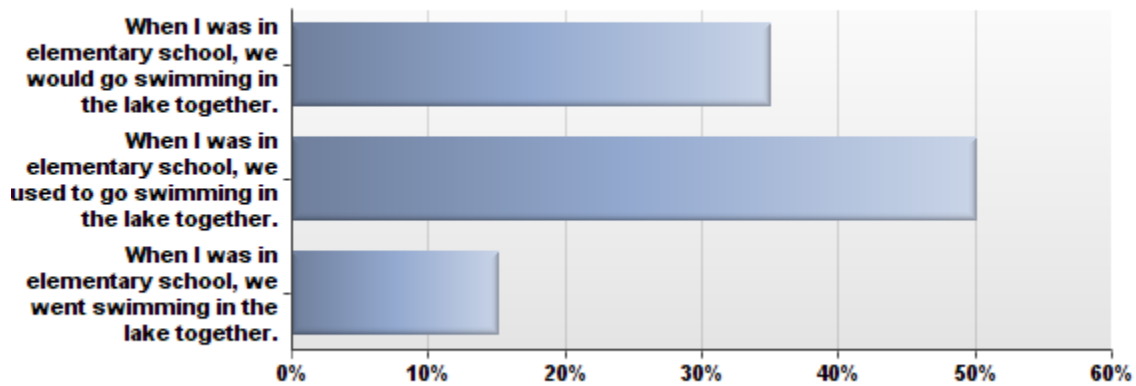


Figure 7. *You and your friends frequently went swimming in the lake when you were in elementary school: Oregonians*

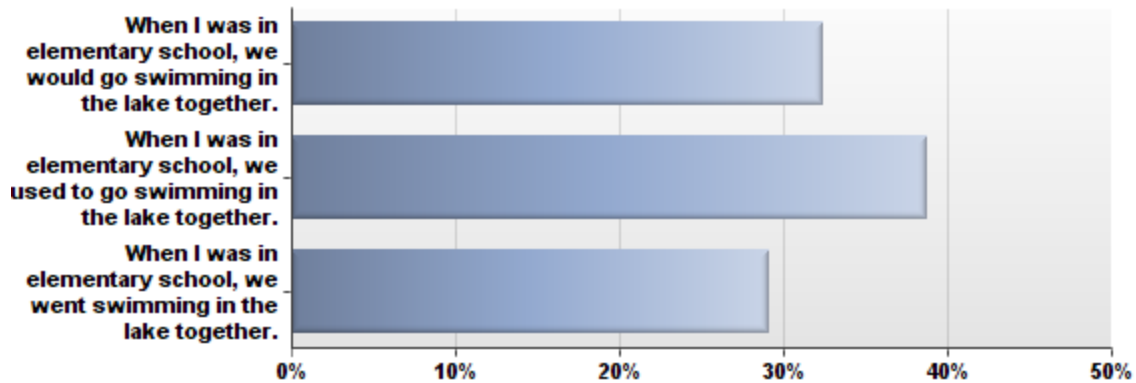


Figure 8. *You and your friends frequently went swimming in the lake when you were in elementary school: Non-Oregonians*

As described in Figure 7, 51% of native Oregonians selected *used to*, while 15% selected the preterit and 34% chose *would*. While *used to* remained the most common choice for non-Oregonians, participants from outside of Oregon were more likely to select the preterit (29%) over *used to* (39%) than Oregonians, and roughly equally likely to select *would* (32%).

This question had the highest percentage of respondents who selected *would* as the most natural sentence to describe the given scenario. Given the results of the production data, this might be the result of an interaction between past habitual forms and either discourse position or the specific temporal adverbial used, as *when I was in elementary school* serves as the first token in this particular sequence. *Would* is more likely to occur later in discourse sequences, while *used to* is most favored in unsequenced tokens. Both Oregonians' and non-Oregonians' responses to this question support this distribution. Interestingly, Oregonians selected *used to* at an ever higher rate than non-Oregonians, despite the rarity of *used to* in Oregonian speech.

### **Ranking: best past habitual form according to context**

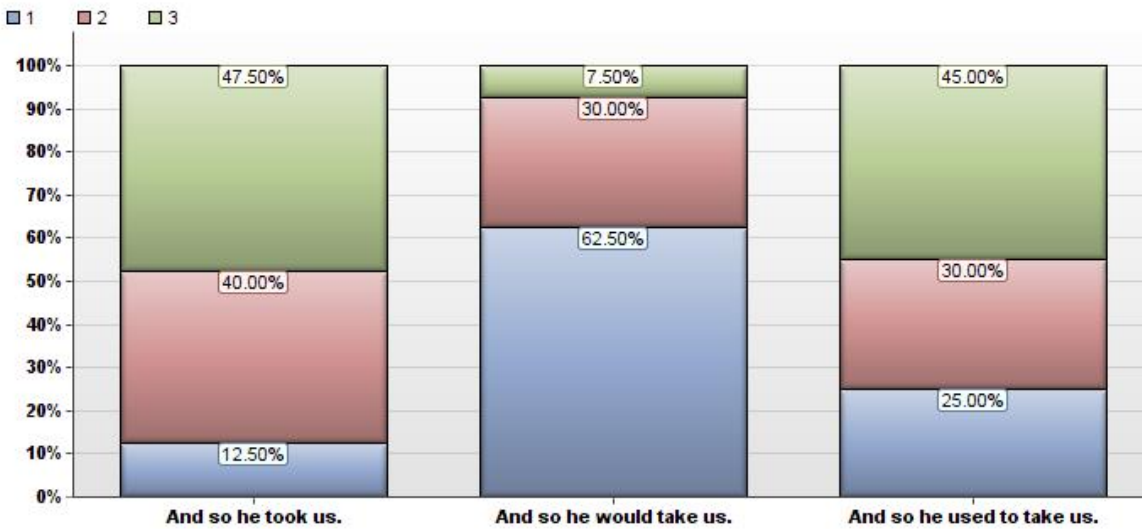
Participants were also assigned a ranking task in which they were given a particular context with a blank space left where the past habitual form would go. The participants were then given the following instructions: *Rank the following sentences in order of how natural they sound to you in the following context, with 1 as the best fitting and 3 as the least fitting option.*

All of these contexts were excerpted from sociolinguistic interviews and contained a token of *used to* in the original recording, with names changed in order to preserve anonymity. The contexts participants were given are described in (5) below.

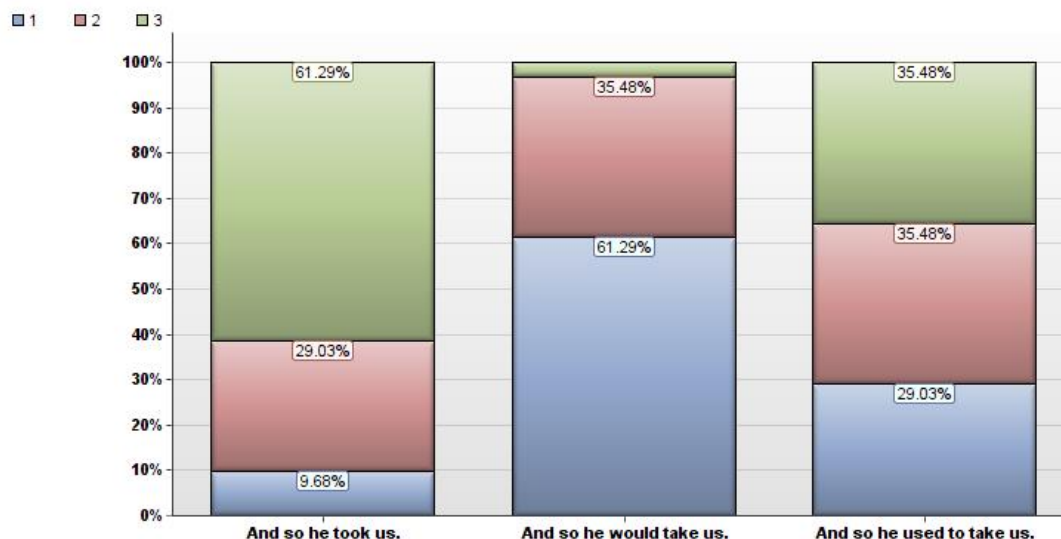
(5)

- a. “We do go skiing sometimes. My dad has meetings that he goes to, and it’s usually in snowy destinations. **And so he \_\_\_\_\_ us.** I haven’t gone in the last year or so because of school.” (OORb230d: 19 YO male, Portland, OR)
- b. “A lot has changed. Even the weather's different. **We \_\_\_\_\_ icicles that hung off the roof of our house,** but I haven't seen that in years.” (OORb060d: 55 YO female, Sutherlin, OR)
- c. “That group of friends was always really close; our parents still hang out. **Like we \_\_\_\_\_ an annual camping trip,** and we still do.” (JS001, 40 YO female, Springfield, OR)

Figures 9 and 10 illustrate the distribution of different rankings assigned to each of the past habitual forms for context (5) a. by Oregonians and non-Oregonians, respectively.



**Figure 9.** Ranking for (5) a.: Oregonians. *We do go skiing sometimes. My dad has meetings that he goes to, and it’s usually in snowy destinations. And so he \_\_\_\_\_ us.*



**Figure 10.** Ranking for (5) a.: Non-Oregonians. *We do go skiing sometimes. My dad has meetings that he goes to, and it's usually in snowy destinations. And so he \_\_\_\_\_ us.*

In Figure 9, 62.5% of Oregonian participants selected *would* was the most natural choice to complete the statement. Oregonians' second and third rankings were somewhat evenly divided between preterit and *used to*. A similar preference for *would* was reflected in the non-Oregonians' rankings described in Figure 10; 61% of non-Oregonians selected *would* as their first choice. Non-Oregonians also clearly selected the preterit as the least natural-sounding form in that context, while nearly all of the participants who did not name *would* as the best fit chose *used to* as the most natural fit for the context.

The participants' preferences in this context reflect the results of the production study, which found that tokens appearing later in discourse sequences significantly favor *would* over the preterit and *used to*. In this context, the instance of past habituality appeared late in a sequence. Other participants' choice of *used to* as the most fitting form could also reflect the findings that contrastive sentences significantly favor *used to* over other past habitual forms, although this could also be the result of other factors.

Figures 11 and 12 illustrate the distribution of different rankings assigned to each of the past habitual forms for context (5) b. by Oregonians and non-Oregonians, respectively.

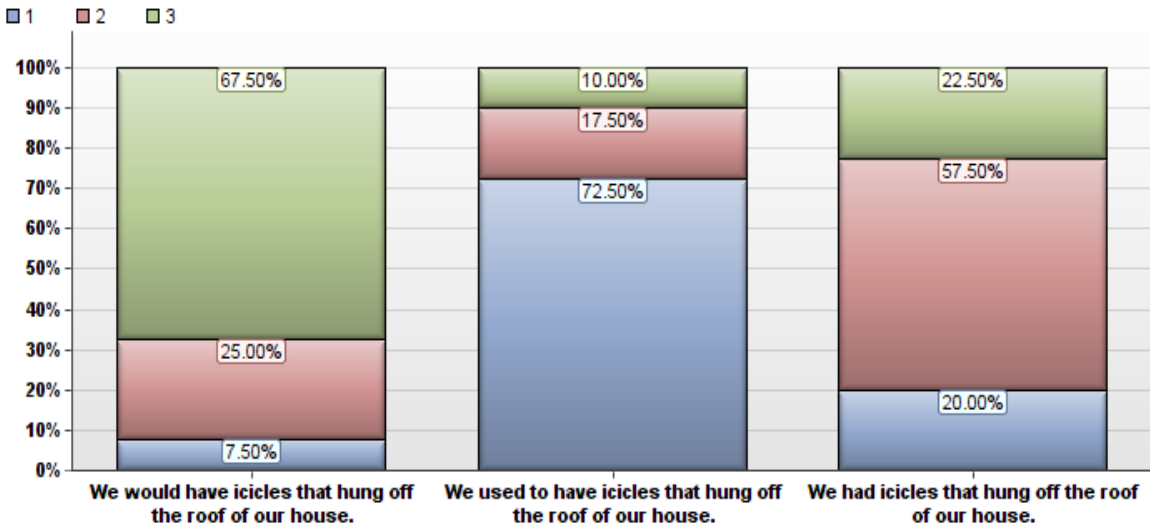


Figure 11. Ranking for (5) b.: Oregonians. *A lot has changed. Even the weather's different. We \_\_\_\_\_ icicles that hung off the roof of our house, but I haven't seen that in years.*

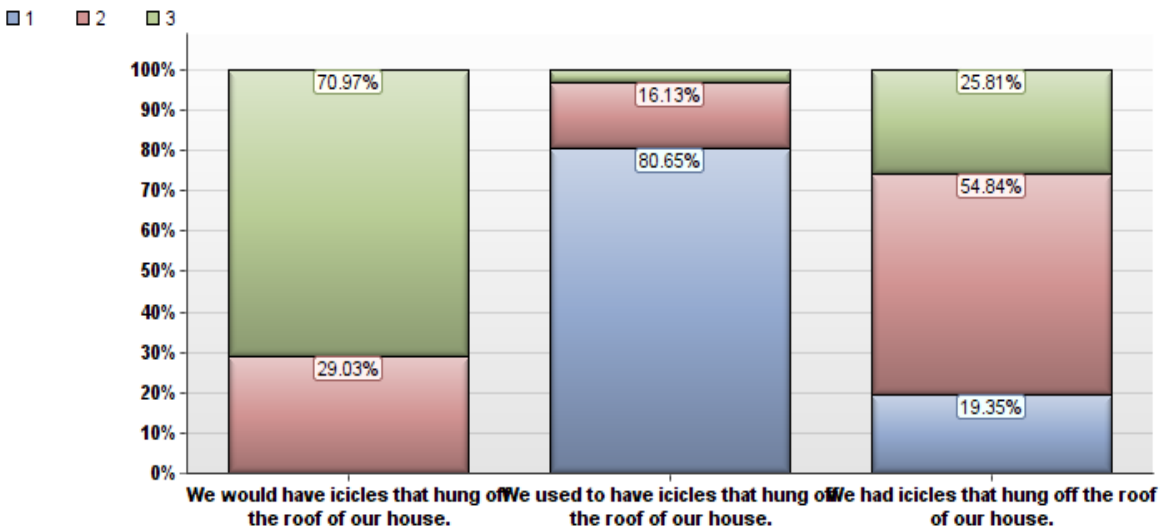
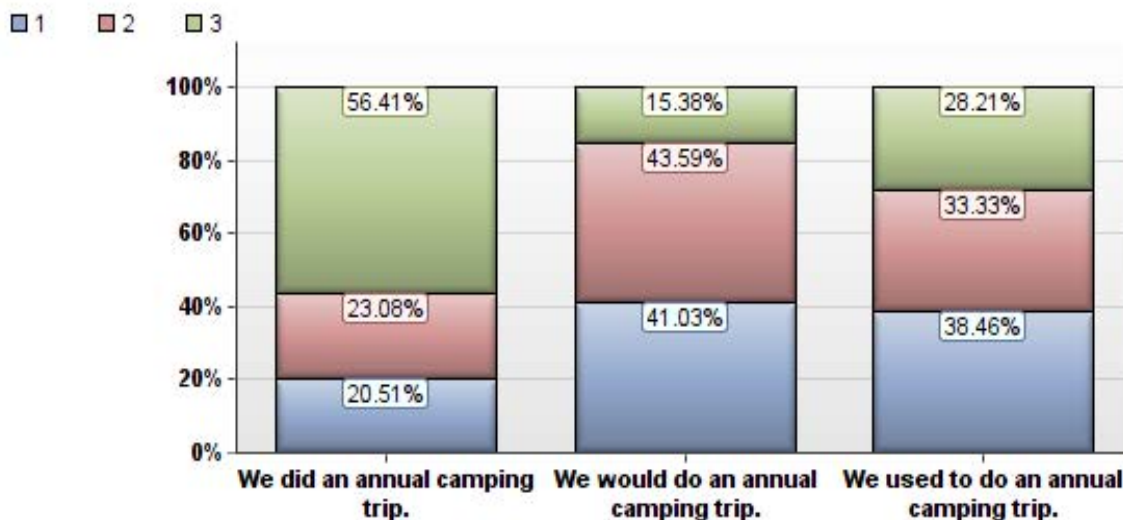


Figure 12. Ranking for (5) b.: Non-Oregonians. *A lot has changed. Even the weather's different. We \_\_\_\_\_ icicles that hung off the roof of our house, but I haven't seen that in years.*

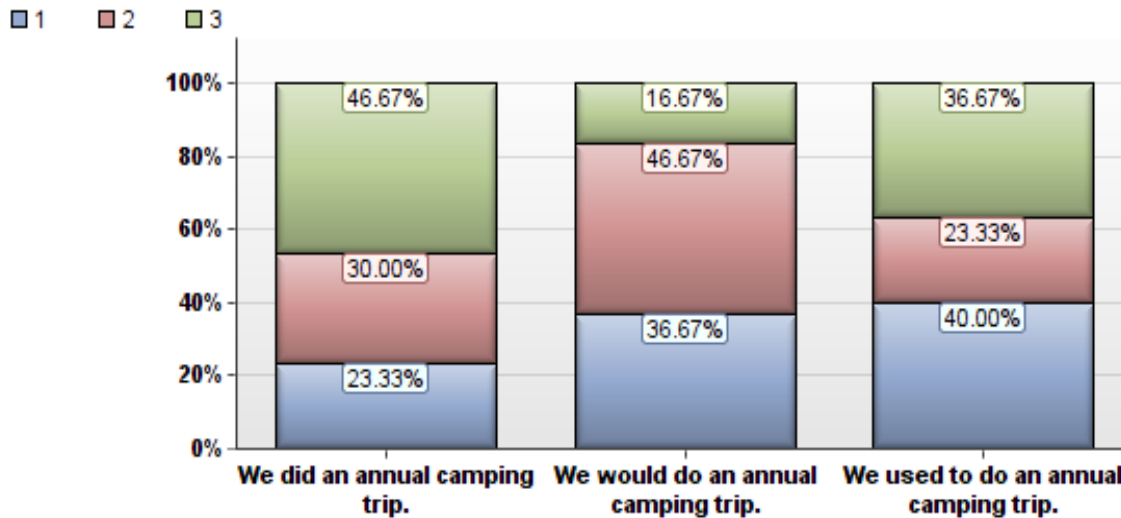
As illustrated in Figure 11, 72.5% of Oregonian participants selected *used to* as the best-fitting way to complete the utterance given the context described in (5) b. Oregonians selected the preterit as the next best fit, and 67.5% named *would* as the worst fit for the given context. As illustrated in Figure 12, 80.65% of non-Oregonians selected *used to* as the best fit for this context, with 19.35% naming the preterit as the top choice. 71% of the non-Oregonians also selected *would* as the least-fitting choice for this context.

Participants' rankings for (5) b. support trends found in the production study, specifically with regard to stativity and contrastiveness. Stative verbs, including *have*, significantly disfavor *would*, which the majority of participants selected as the worst choice for this context. The speaker in this context is also clearly contrasting the weather today with the weather at an earlier point in time; *used to* is significantly favored by explicitly contrastive utterances. These results could indicate that speakers not only interpret *used to* as contrastive form, but that speakers associate contrastive sentences with *used to* more than they do with *would* or the preterit.

Oregonians' and non-Oregonians' results for (5) c. are illustrated in Figures 13 and 14.



**Figure 13.** Ranking for (5) c.: Oregonians. *That group of friends was always really close; our parents still hang out. Like we \_\_\_\_\_ an annual camping trip, and we still do.*



**Figure 14.** Ranking for (5) c.: Non-Oregonians. *That group of friends was always really close; our parents still hang out. Like we \_\_\_\_\_ an annual camping trip, and we still do.*

Here, the rankings by both Oregonians and non-Oregonians are more evenly distributed between the three forms. None of the forms was selected by a majority of participants as the best selection for the context, although 84% of the total participants selected *would* as one of the top two ranked options, compared to 68% for *used to* and 47% for the preterit.

### **Sliding-Scale: perceived levels of contrastiveness**

There were three questions in which participants were given a sentence containing either *would* or *used to*. Participants were then asked to determine the likelihood that the event or action described was still taking place at the time of the utterance. Participants gave their ratings on a sliding scale from zero to six, with zero being “completely unlikely” that the event was still occurring and six being “very likely.” The following sentences in (6) were adapted from the sociolinguistic interviews from the production study, with names changed in order to preserve

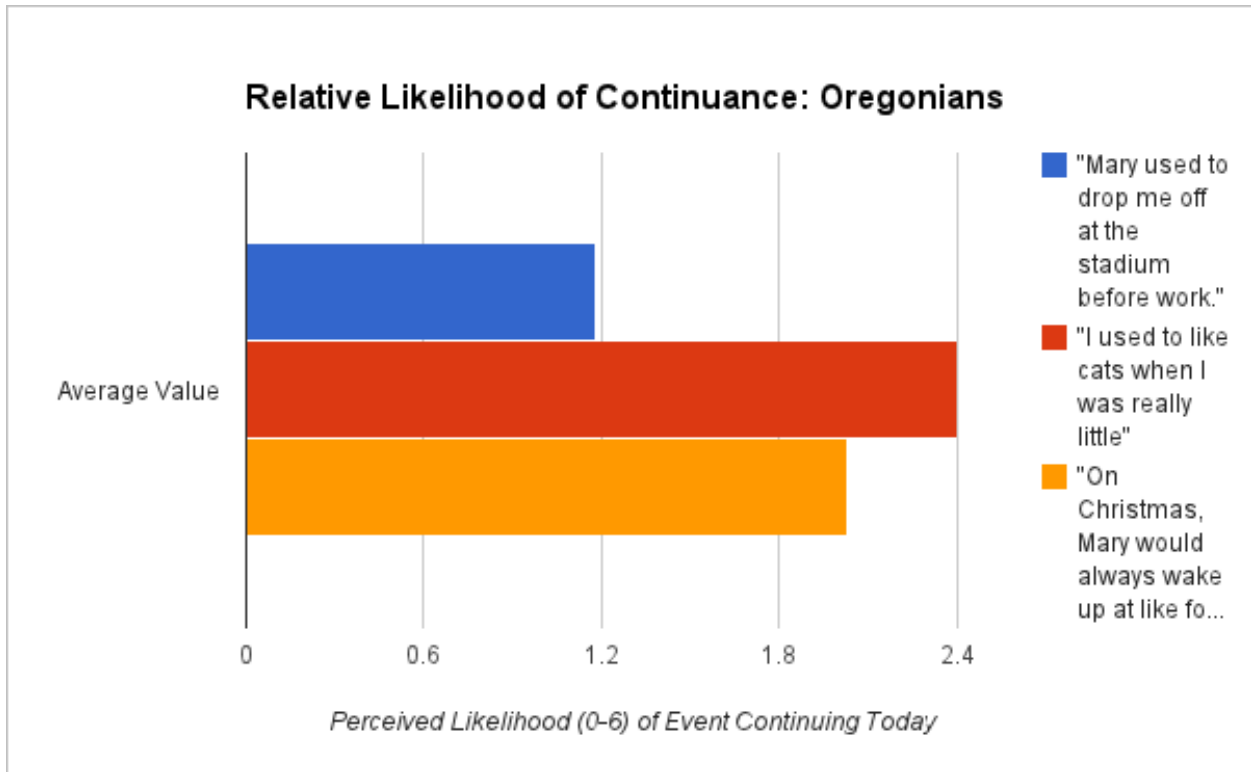
anonymity. Survey participants were not given a larger context for the sentences, which could otherwise indicate whether the action continued to the present day.

- (6)
- a. “Mary *used to drop me off* at the stadium before work.” (not directly from interview)
  - b. “I *used to like* cats when I was really little.” (OORb230d: 19 YO male, Portland, OR)
  - c. “On Christmas, Mary *would* always *wake up* at like four o’clock in the morning.” (OORb160d: 20 YO female, Beaverton, OR)

In the interviews, sentence (6) b. was explicitly contrastive (the speaker notes that no one in his family likes cats anymore), while (6) c. was only implicitly contrastive. Given the hypothesis that *used to* implies a greater degree of contrastiveness than *would* in Oregonian English, we would expect speakers from Oregon to assign sentences with *would* with a higher likelihood of continuance than sentences with *used to*.

Figures 15 and 16 illustrate the average perceived likelihood of continuance for each sentence in (6) assigned by Oregonians and non-Oregonians, respectively.





**Figure 15.** Relative likelihood of continuance: Oregonians.

Oregonians assigned the lowest score to (6) a., “Mary *used to drop me off* at the stadium before work” with an average value of 1.18 out of 6. Oregonians responses to (6) c. averaged 2.03, while with responses to (6) b. averaged 2.4 out of 6.

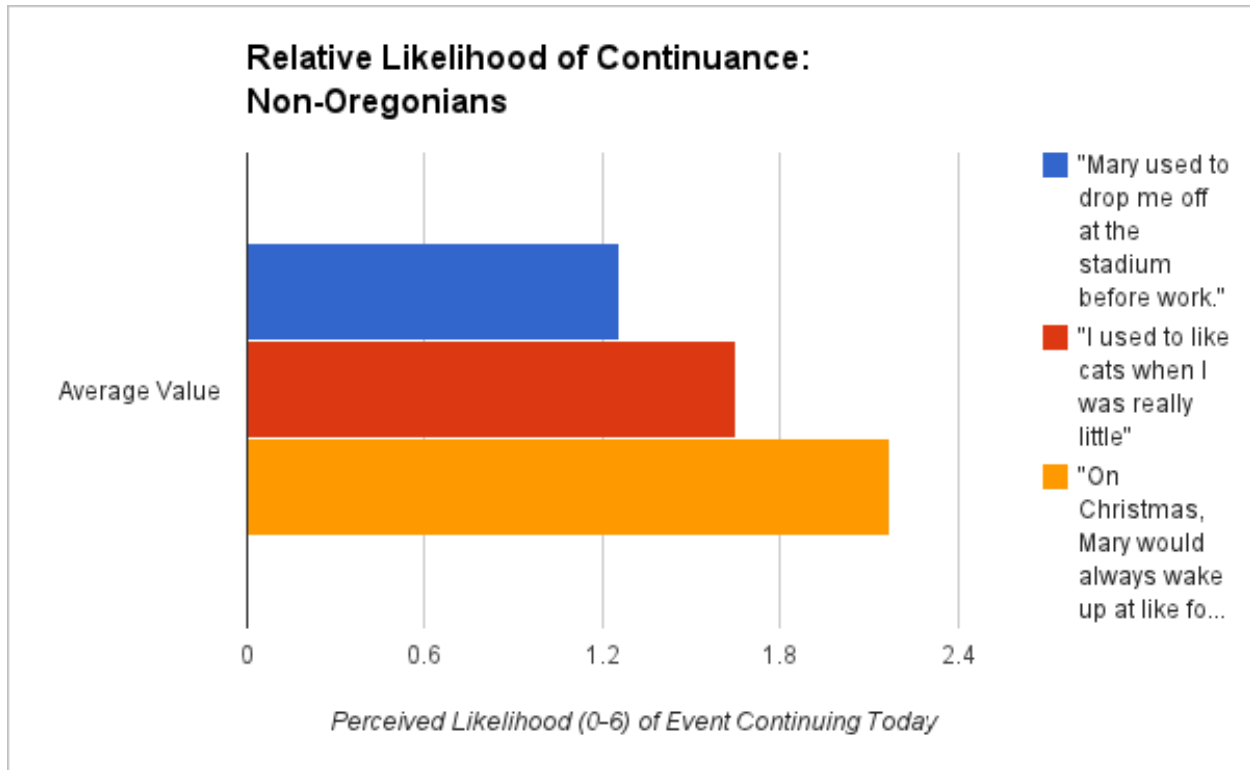


Figure 16. Relative likelihood of continuance: Non-Oregonians.

Non-Oregonians assigned sentence (6) a. an average value of 1.26, (6) b. a value of 1.65 and (6) c. an average value of 2.17.

Both Oregonians and non-Oregonians ranked all three of these sentences as having a relatively low likelihood of continuing to the time of the utterance. Average values ranged from 1.18 (Oregonians' mean rating for "Mary *used to drop me off* at the stadium before work") to 2.4 (Oregonians' mean rating for "I *used to like* cats.") Interestingly however, Oregonians rated "Mary *would always wake up* at like four o'clock in the morning" as less likely to occur today than "I *used to like* cats." Indeed, non-Oregonians gave ratings that corresponded more closely with the initial predictions for Oregonian participants than did the native Oregonians. Non-Oregonians rated both of the sentences with *used to* as less likely to continue to the present than

“*Mary would always wake up at like four o’clock in the morning,*” which runs counter to the results of the production study.

Participants’ ratings for “*I used to like cats when I was really little*” are the source of much of this discrepancy. Oregonians rated this sentence as the most likely of the three to continue to the present day, with a mean rating of 2.4 out of 6. Non-Oregonian participants gave this sentence a rating of 1.65 out of 6, placing it between the more unlikely “*Mary used to drop me off at the stadium before work*” and “*Mary would always wake up at like four o’clock in the morning.*”

Participants’ ratings of this sentence do not support the notion that *used to* is particularly contrastive in first-person sentences, as both Oregonians and non-Oregonians rated “*I used to like cats when I was really little*” as more likely to occur in the present than “*Mary used to drop me off.*”

There are several possible factors that could explain the relatively high rating of possible continuance Oregonians assigned to “*I used to like cats,*” none of which are heavily supported by evidence in the rest of the study. While all three past habitual forms are possible with the other two sentences, *used to* and the preterit are the only possible forms for this sentence. “*I would like cats*” would likely be interpreted as having a conditional rather than past habitual meaning. If speakers in Oregon select *would* over *used to* when contrast cannot be clearly inferred, then they may be less cognizant of a contrastive meaning for *used to* when only two possible forms are available to them. However, the non-Oregonians in the study also appeared to have the same association between *used to* and contrastiveness as Oregonians, suggesting that this may not be the case.

This discrepancy between Oregonians and non-Oregonians could also be a reflection of the content rather than linguistic differences between the two groups, possibly revealing more about attitudes regarding cats in Oregon than any difference in language.

Stativity was also a significant predictor *would* in the production data, with stative verbs disfavoring *would*. The levels of implied contrast with *used to* may be related to the range of past habitual forms available to the speaker; in this case, *used to* would have the highest levels of contrastiveness in situations in which all three past habitual forms are suitable.

In the two remaining sliding-scale questions, participants were similarly presented with a sentence that included *used to*. Participants were then asked to rate how lied to or misled they would feel if the event in question was still taking place, with a value of zero representing “not at all lied to/misled” and six as “very lied to/misled.”

Figures 17 and 18 offer a comparison of Oregonian and non-Oregonian responses to each of these questions.

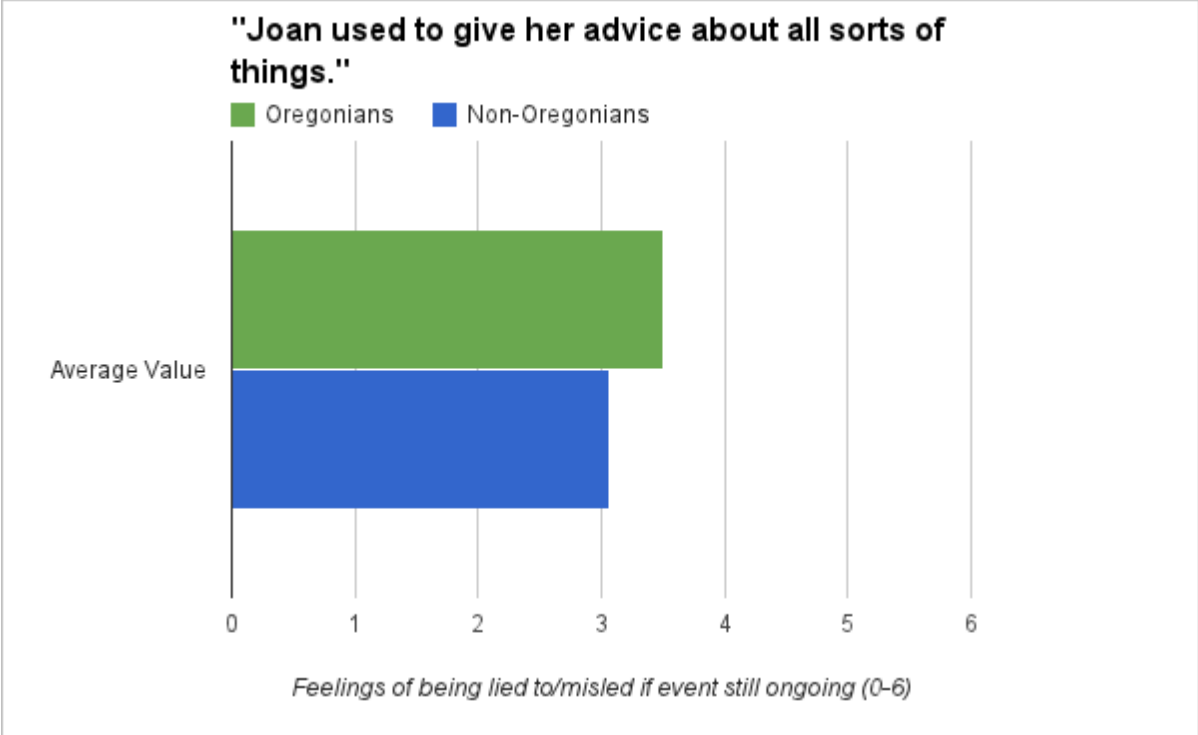


Figure 17. Average feelings of being misled or lied to: *Joan used to give her advice.*

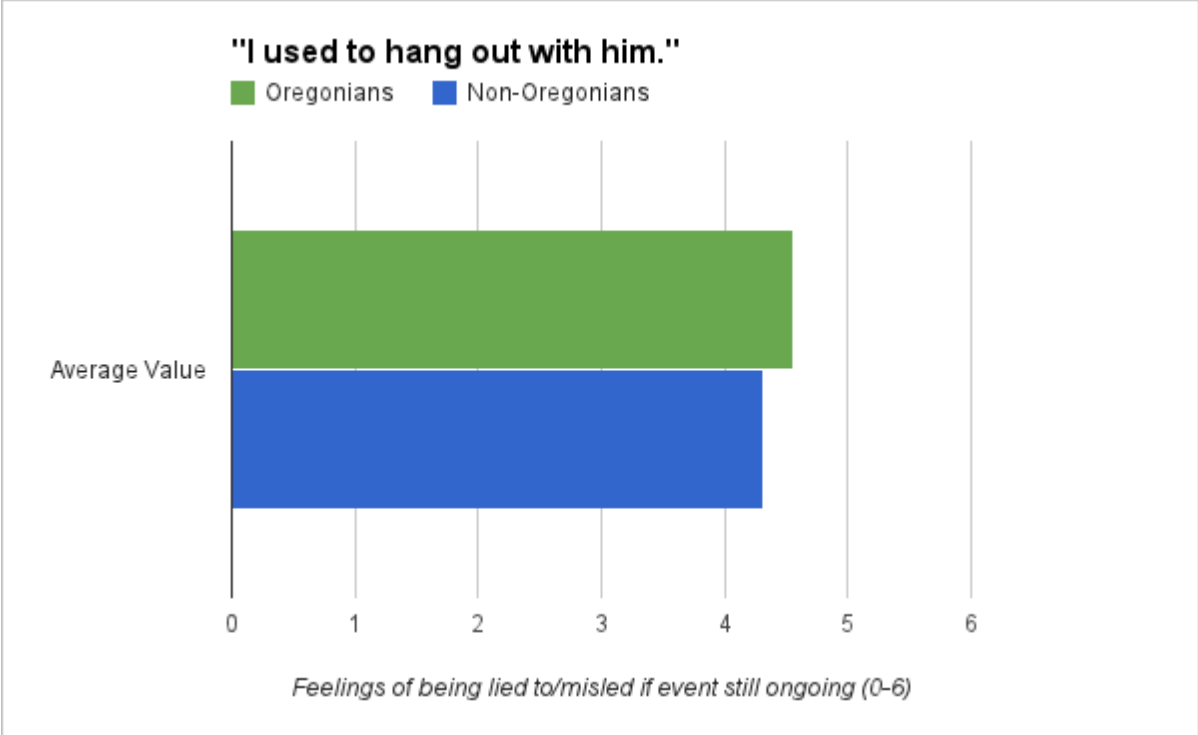


Figure 18. Average feelings of being misled or lied to: *I used to hang out with him.*

As illustrated in Figure 17, Oregonians reported an average value of 3.51 out of 6 in response to “Joan used to give her advice about all sorts of things,” while non-Oregonians reported an average value of 3.06. As can clearly be seen in Figure 18, participants reported stronger feelings of being misled or lied to for “I used to hang out with him” than for “Joan used to give her advice. Oregonians reported an average value of 4.56 out of 6 if it turned out that the speaker still hung out with the person described, while non-Oregonians reported an average value of 4.32.

The large discrepancy between these values for two different sentences with *used to* suggests that factors other than the past habitual form chosen also play a role in affecting speakers’ and listeners’ expectations of contrastiveness. Although person was not found to be a significant predictor of either *used to* or *would* in the production data, there may still be an interaction between first person speech and the perceived level of contrastiveness; the listener would expect the speaker in to have a better idea of whether the event is still ongoing in “I used to hang out with him,” as the speaker is directly involved in the utterance. This discrepancy could also be the result of the content and the specific verbs chosen for each of these example sentences.

The relatively high values that both Oregonians and non-Oregonians reported for these questions indicate that *used to* does implicate some degree of contrastiveness, to the point that saying *used to* to describe an event that still takes place is considered misleading.

For both of these questions, Oregonians reported slightly stronger feelings of being misled or lied to if the action were to continue to the time of the utterance than did non-Oregonians in the study. These differences may indicate that the implied level of contrastiveness for *used to* is higher in Oregonian English than in other varieties of English.

## Ranking: association with contrastiveness

For the last question, participants ranked four different ways of completing a sentence containing *used to*; the different options participants were given to complete the sentence (enumerated in (7) a.-d.) corresponded with varying levels of contrastiveness.

- (7) Rank the following sentences in order of how natural they sound to you to complete the following sentence, with 1 as the best fitting and 3 as the least fitting option.
- a. Bill used to skateboard, but now he rollerblades.
  - b. Bill used to skateboard, and then he broke his leg.
  - c. Bill used to skateboard, and he still does.
  - d. Bill used to skateboard, and now he's an astronaut.

Table 6 describes the corresponding levels of contrastiveness for each of these options.

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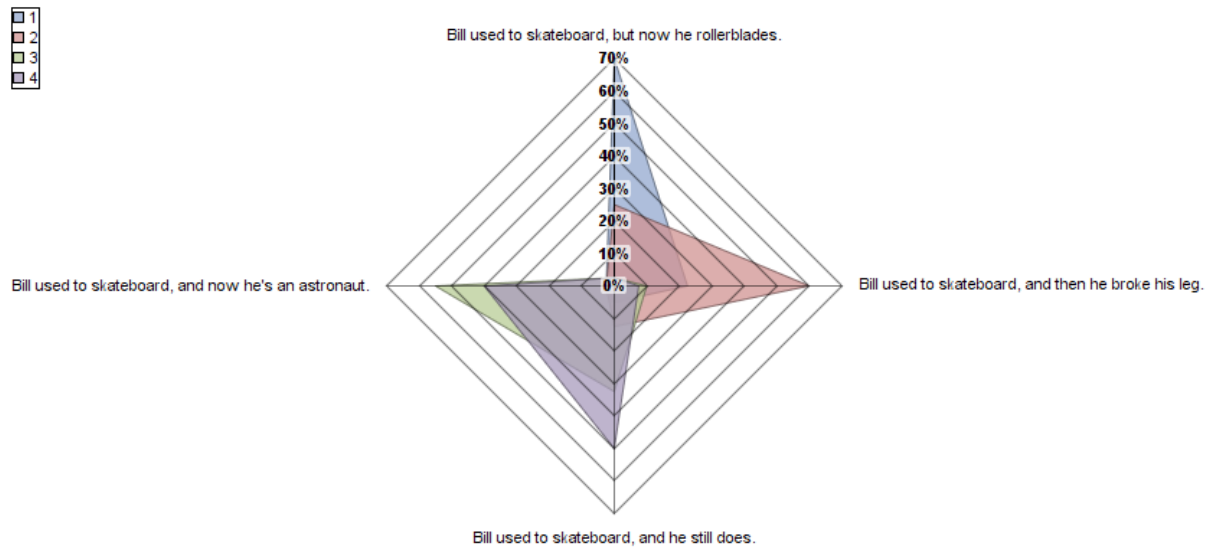
**Table 6: Corresponding levels of contrastiveness for *Bill used to skateboard...***

Way of completing sentence	Corresponding level of contrastiveness
but now he rollerblades.	Explicitly contrastive
and then he broke his leg.	Implicitly contrastive
and he still does.	Explicitly non-contrastive
and now he's an astronaut.	Ambiguous.

---

If *used to* were strongly associated with more contrastive meanings, we would expect the most contrastive option to be ranked first, and for the least contrastive option to be ranked last. The final option, “Bill used to rollerblade *and now he's an astronaut,*” was chosen as an option that would be completely irrelevant to the first half of the sentence. This option served as a baseline “less-fitting” option relative to the other choices in order to gauge whether possible priming for contrastive ways to complete the sentence would be strong enough to override the introduction of new, irrelevant information.

The responses of both the Oregonian and non-Oregonian study participants, illustrated in Figures 19-21, confirmed this hypothesis and strongly supported the findings in the multivariate analysis that contrastive utterances significantly favor *used to* relative to non-contrastive and ambiguous utterances. Figure 19 presents an area radar chart comparing the percentages of each ranked option for Oregonians, while Figures 20 and 21 illustrate the distribution of different rankings assigned to each of the options in (7) a.-d. by Oregonians and non-Oregonians, respectively.



**Figure 19.** Ranking: area radar chart (%) for *Bill used to skateboard*: Oregonians.



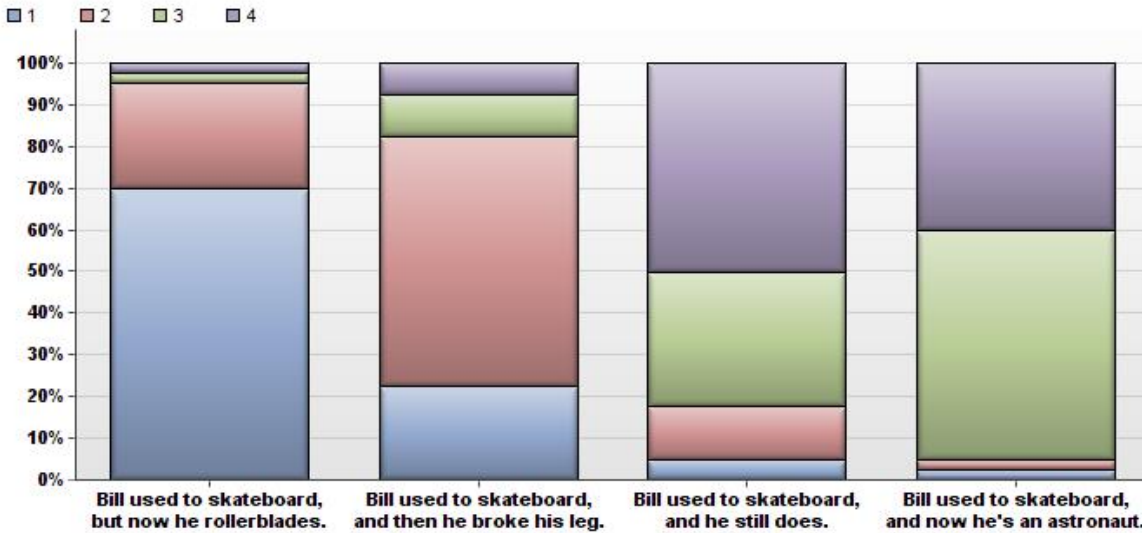


Figure 20. Ranking: ways to complete *Bill used to skateboard...*: Oregonians.

As illustrated in Figures 19 and 20, the most contrastive option, “Bill used to skateboard, *but now he rollerblades*” was selected as the best-fitting option by nearly 70% of the native Oregonians, and as one of the top two choices by all but two respondents. The next most contrastive sentence, “Bill used to skateboard, *and then he broke his leg,*” was overwhelmingly selected as the second-best option. Here, the sentence is implied to be contrastive; Bill “broke his leg” and is presumed not to be able to skateboard.

Oregonian participants were less decisive about the final two choices, although a slight majority of respondents ranked “Bill used to skateboard, *and now he’s an astronaut*” above “Bill used to skateboard, *and he still does.*”

While this option is ambiguous in terms of contrastiveness, participants may have interpreted this option as implicitly contrastive in order to make it relevant to the sentence, as in “Bill used to skateboard, and now he’s an astronaut” *and therefore he no longer skateboards.* While this ranking corresponds to different levels of contrastiveness, that participants considered an option that’s largely irrelevant to the original sentence (“*and now he’s an astronaut*”) more

natural than an explicitly non-contrastive option serves to confirm that *used to* has a very strong contrastive connotation for Oregonian English speakers. This ranking suggests that upon hearing *used to*, native Oregonians are primed to expect contrastive information.

These results are not limited to native Oregonians. As shown in Figure 21 below, non-Oregonian survey participants overwhelmingly made the same assessments in deciding how best to complete the example sentence.

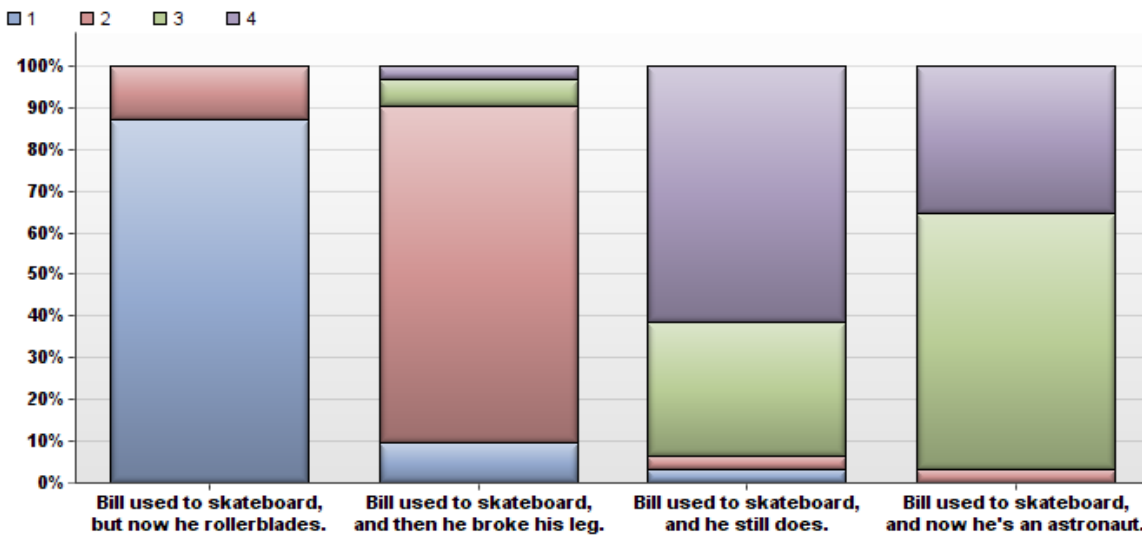


Figure 21. Ranking: ways to complete *Bill used to skateboard...*: Non-Oregonians.

87% of non-Oregonians selected “Bill used to skateboard, *but now he rollerblades*” as the best-fitting option, and all but two respondents selected the two most contrastive sentences as the two most fitting options. The least contrastive option, “Bill used to skateboard, *and he still does,*” was also ranked last by 61% of non-Oregonians. Indeed, non-Oregonian responses to this question even more strongly support the idea that *used to* is heavily associated with contrastive over non-contrastive and ambiguous utterances.

## VI. CONCLUSIONS

Both multivariate analysis of the subset of interviews and the results of the perceptual survey support the notion that semantic as well as syntactic factors affect the distribution of past habitual forms in Oregonian English.

These factors include stativity, discourse position and contrastiveness. Stative verbs disfavor *would* and favor the preterit relative to non-stative verbs ( $p < 0.001$ ), while later-sequenced tokens favor *would* and disfavor *used to* relative to unsequenced tokens ( $p < 0.0001$ ). Contrastive past habitual utterances significantly favor *used to* relative to ambiguous and non-contrastive utterances; this is particularly true of explicitly contrastive utterances ( $p < 0.0001$ ). While some of these effects, including the preference for *would* in later-sequenced utterances, are reflected in earlier studies of past habituality (Tagliamonte and Lawrence 2000), multivariate analysis of the subset data established that these factors have different effects on the distribution of past habitual forms in Oregon and in York.

When paired with these findings, the survey results support the notion that *used to* carries a specifically contrastive meaning, which may account in part for the rarity of this past habitual form in Oregon. Survey participants rated sentences with *used to* as having a low likelihood of continuing to the time of the utterance, and reported feeling high levels of deception when they were told that something that “used to happen” was still ongoing. Participants’ rankings of different ways to complete a sentence containing *used to* also corresponded with different levels of contrastiveness. These findings suggest that *used to* holds a strong contrastive meaning for

Oregonian speakers, supporting the hypothesis that Oregonians avoid using *used to* unless it is clear that the action in question has ceased.

Further, the perceptual judgments of non-Oregonians in the study largely paralleled those of the Oregonian respondents. Non-Oregonians responded similarly to Oregonians in sliding-scale questions of contrastiveness. Non-Oregonians also overwhelmingly ranked contrastive utterances as more suitable to complete a sentence containing *used to* than ambiguous or non-contrastive options. This finding is particularly interesting, as it indicates that the especially contrastive implication of *used to* is likely not unique to Oregonian English.

While the findings in the production study are specific to Oregonian speakers, past habituality has not been studied extensively in other parts of the western United States. As most of the non-Oregonian participants in the study were from other western states, most notably California, these findings could reflect larger trends in the region.

If Oregonians and other speakers do indeed perceive a fundamental difference between *used to* and *would*, this leaves room for more questions about both semantic change and the future of *used to* in Oregon and elsewhere. The extreme infrequency of *used to* in Oregonian English could be a sign of a long-term shift in how past habituality is encoded, either in Oregon or throughout a larger dialectal region within North America. Although Oregonian speakers continue to recognize *used to* as the dominant form to encode past habituality in English, its extreme infrequency in Oregonian speech could indicate that *used to* is ceasing to be a productive way for speakers from the region to encode past habituality at all.

Subsequent production studies outside of Oregon could determine whether this perceptual semantic distinction is reflected in the speech of other western speakers, while studies of different age groups could help to determine whether *used to* is currently undergoing semantic

narrowing in Oregon and elsewhere, or whether these results reflect a longstanding feature of language in the western United States.

## WORKS CITED

- Binnick, Robert I. 2005. The markers of habitual aspect in English [Electronic version]. *Journal of English Linguistics*, 33.4: 339-369. doi:10.1177/0075424205286006
- Bybee, Joan L.; Perkins, Revere D., and Pagliuca, William. 1994. *The evolution of grammar: tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press. 154-156.
- Chafe, Wallace, and Nichols, Johanna. 1986. *Evidentiality: The linguistic coding of epistemology*. Norwood, NJ: Ablex. 261-272.
- Comrie, Bernard. 1976. *Aspect: An introduction to the study of verbal aspect and related problems*. Cambridge, UK: Cambridge University Press.
- Curnow, Timothy J. 2002. *Evidentiality and me: The interaction of evidentials and first person*. Diss. Australian Linguistic Society, 2002.
- Jespersen, Otto H. 1964. *Essentials of English grammar*. Birmingham: University of Alabama Press.
- Leech, Geoffrey N. 1987. *Meaning and the English verb*. New York: Longman.
- McLarty, Jason; Farrington, Charlie, and Kendall, Tyler. 2014. Perhaps we used to, but we don't anymore: The habitual past in Oregonian English. *Penn working papers in linguistics*, 20:2. Philadelphia: University of Pennsylvania.
- Schibsbye, Knud. 1970. *A modern English grammar*. Oxford, UK: Oxford University Press.

- Tagliamonte, Sali, and Lawrence, Helen. 2000. I used to dance, but I don't dance now: The habitual past in English. *Journal of English Linguistics*, 28.4: 324-353. doi: 10.1177/007542420002800402
- Van Herk, Gerard. 2012. Using the past to explain the past: Aspect and past temporal reference in urbanizing Newfoundland English [Abstract]. Paper presented at NWAV 41, Indiana University: Bloomington, Indiana.
- Van Herk, Gerard, and Hazen, Kirk. 2011. Low-salience variation, frequency, and dialect difference: Habitual past marking in Newfoundland and West Virginia [Abstract]. Paper presented at *Change and variation in Canada (CVC)*, University of Victoria: Victoria, BC, May 13-14.
- Vaux, Bert, and Jøhndal, Marius L. 2013. *Cambridge online survey of world Englishes*. Retrieved March 11, 2014, from [http://www.tekstlab.uio.no/cambridge\\_survey/maps](http://www.tekstlab.uio.no/cambridge_survey/maps)
- Walden, Michael. 2007, January 18. Is spendy really a word? [Editorial]. *The Oregonian*. Retrieved April 8, 2014, from [http://blog.oregonlive.com/oregonianeditors/2007/01/is\\_spendy\\_really\\_a\\_word.html](http://blog.oregonlive.com/oregonianeditors/2007/01/is_spendy_really_a_word.html)
- Yale University. 2014. *Yale grammatical diversity project: English in North America*. Retrieved March 11, 2014, from [microsyntax.sites.yale.edu](http://microsyntax.sites.yale.edu)

## Information and Consent Form

### Language in Oregon Information and Consent Form

You are being asked to participate in a research study about language in Oregon and the Western U.S. You were selected as a possible participant because you are a native English speaker over the age of 18. We ask that you read this form before agreeing to be in the study.

The purpose of this study is to investigate English in Oregon and how it is viewed by other English speakers. If you agree to be in this study, we ask that you complete a survey. This survey asks questions about your use of language, what different sentences mean and how natural they sound to you. There will be a combination of multiple choice and sliding scale questions. The survey should take approximately 5 to 10 minutes to complete. Please answer the questions based on how you speak and what sounds natural to you, not based on grammar rules in written English.

There will be no payments or costs to you to participate in this research study.

In order to ensure your confidentiality, your responses will be anonymous. No personal identifiers, including names or birthdays, will be included in the survey, and the records of this study will be kept private.

In any sort of report we may publish, we will not include any information that will make it possible to identify you. Research records will be stored in the Qualtrics system, which is a licensed data collection tool at the University of Oregon.

Your participation is voluntary. You may end the survey at any time and you can skip any parts that you wish. If you choose not to participate, it will not affect your current or future relations with the University. There is no penalty for not taking part or for stopping your participation.

Participation provides no specific benefits to you, nor any foreseeable risks or harms. Most people enjoy the opportunity to share their thoughts about language in the area. By taking part in this project you will help us better understand and preserve the cultural heritage of Oregon.

The researchers conducting this study are Shireen Farahani and Tyler Kendall. If you have questions at any time, contact the investigator in charge of the project.

Principal Investigator: Shireen Farahani    shireenf@uoregon.edu    (503) 683-3163  
Faculty Advisor:            Tyler Kendall            tsk@uoregon.edu            (541) 346-3199

You may also contact the University of Oregon's Office for Protection of Human Subjects if you have concerns:

541-346-2510            human\_subjects@orc.uoregon.edu

Thank you!

- By checking this box, you acknowledge that you have read the contents of this form and that you give your informed consent to participate in this study.



## Screening Questions

Is English your first language?

- Yes
- No

If not English, what is your first language, and when did you start learning English?

What gender do you identify as?

- Male
- Female
- non-binary/other

What year were you born?

Did you live in Oregon for most or all of your childhood?

- Yes
- No

Name the city and state (or country if outside of the US) that you most consider your hometown.

Please list any other cities in which you've lived for two or more years.

Do you think of your hometown as urban, suburban or rural?

- urban
- suburban
- rural

What is your ethnic background?

What was the last school you attended? If you are currently in school, please write your current institution (e.g. Portland State University, Sheldon High School).

What is the highest level of education you have completed or are in the process of completing? (e.g. M. Ed., high school diploma)

- Middle school or earlier.
- High school diploma.
- Associate degree.
- Bachelor's degree.
- Master's degree.
- Doctorate degree.
- Professional degree
- other

### Language Questions 1

You and your siblings frequently played video games together when you were a child, but you don't anymore. You are telling someone about it.

Please select the sentence that sounds most natural for you to describe this situation.

- We played video games a lot when I was a child.
- We would play video games a lot when I was a child.
- We used to play video games a lot when I was a child.

You and your friends frequently went swimming in the lake when you were in elementary school and you are telling someone about it.

Please select the sentence that sounds most natural for you to describe this situation.

- When I was in elementary school, we would go swimming in the lake together.
- When I was in elementary school, we used to go swimming in the lake together.
- When I was in elementary school, we went swimming in the lake together.

When you were growing up, your father traveled to California to visit relatives every summer.

Please select the sentence that sounds most natural for you to describe this situation.

- My dad used to visit our relatives in California every summer.
- My dad visited our relatives in California every summer.
- My dad would visit our relatives in California every summer.

In the past, you took the bus to work every day. However, you recently bought a car and now you drive to work.

Please select the sentence that sounds most natural for you to describe this situation.

- I always used to take the bus to work, but I don't anymore.
- I would always take the bus to work, but I don't anymore.
- I always took the bus to work, but I don't anymore.

Consider the statement: "I used to like cats when I was really little."

On a scale from 0 to 6, with 0 being completely unlikely and 6 being very likely, how likely would it be that the speaker still likes cats?

	Completely unlikely			Highly likely			
	0	1	2	3	4	5	6
Click to write Choice 1							

Consider the statement: "On Christmas, Mary would always wake up at like four o'clock in the morning."

On a scale from 0 to 6, with 0 being completely unlikely and 6 being very likely, how likely would it be that Mary still wakes up at four o'clock in the morning on Christmas?

	0	1	2	3	4	5	6
Click to write Choice 1							

Consider the statement: "Joan used to give her advice about all sorts of different things."

How lied to or misled would you feel if it turned out that Joan still gives the person advice?

	Not at all lied to/misled			Very lied to/misled			
	0	1	2	3	4	5	6
Click to write Choice 1							

Consider the statement: "I used to hang out with him."

How lied to or misled would you feel if it turned out that the speaker still hangs out with the person described in the statement?

Not at all lied to/misled.

Very lied to/misled.

0 1 2 3 4 5 6

Click to write Choice 1							
-------------------------	--	--	--	--	--	--	--

Consider the statement: "Mary used to drop me off at the stadium before work."

On a scale from 0 to 6, with 0 being completely unlikely and 6 being very likely, how likely would it be that Mary still drops you off at the stadium?

Completely unlikely

Highly likely

0 1 2 3 4 5 6

Click to write Choice 1							
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Rank the following sentences in order of how natural they sound to you in the following context, with 1 as the best fitting and 3 as the least fitting option.

"We do go skiing sometimes. My dad has meetings that he goes to, and it's usually in snowy destinations. And so he \_\_\_\_\_ us. I haven't gone in the last year or so because of school."

	1	2	3
And so he took us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
And so he would take us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
And so he used to take us.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rank the following sentences in order of how natural they sound to you in the following context, with 1 as the best fitting and 3 as the least fitting option.

"A lot has changed. Even the weather's different. We \_\_\_\_\_ icicles that hung off the roof of our house, but I haven't seen that in years."

	1	2	3
We would have icicles that hung off the roof of our house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We used to have icicles that hung off the roof of our house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We had icicles that hung off the roof of our house.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Rank the following sentences in order of how natural they sound to you to complete the following sentence, with 1 as the best fitting and 3 as the least fitting option.

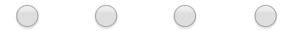
"Bill used to skateboard, \_\_\_\_\_."

	1	2	3	4
Bill used to skateboard, and then he broke his leg.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bill used to skateboard, and now he's an astronaut.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Bill used to skateboard, and he still does.



Bill used to skateboard, but now he rollerblades.



Rank the following sentences in order of how well they fit given the following context, with 1 as the best fitting and 3 as the least fitting option.

"That group of friends was always really close; our parents still hang out. Like we \_\_\_\_\_ an annual camping trip, and we still do."

1                      2                      3

We did an annual camping trip.



We would do an annual camping trip.



We used to do an annual camping trip.



Consider the statement: "This shirt needs washed."

On a scale from 0 to 6, with 0 being "I would never say that" and 6 being "That sounds like something I would say", how acceptable is that statement?

I would never say that.

That sounds like something I would say.

0                      1                      2                      4                      5                      6

Click to write Choice 1						
-------------------------	--	--	--	--	--	--

"He used to nap on the couch, but he sprawls out in that new lounge chair anymore."

- This use of "anymore" sounds natural to me.
- This use of "anymore" does not sound natural to me.
- Unsure

"I do exclusively figure paintings anymore."

- This use of "anymore" sounds natural to me.
- This use of "anymore" does not sound natural to me.
- Unsure

"I would have rathered leave right then."

- I would say that.
- That sounds like something a native speaker would say, but I wouldn't say it.
- I don't think anyone says this.

"You so need to call Alex tonight."

- I would say that.

- That sounds like something a native speaker would say, but I wouldn't say it.
- I don't think anyone says this.

A: "I play basketball."

B: "Yeah, so don't I."

In this conversation, does speaker B play basketball?

- Yes, B plays basketball.
- No, B does not play basketball.
- I'm not sure what speaker B is trying to say.

If you were to hear the statement "She's been married," which of following would you most likely assume:

- At some point, she was married, but she's not anymore.
- At some point, she was married, and she's still married.
- At some point, she was married, and the speaker makes no claim made about whether she is still married.

Modals are words like "can," "could," "might," "ought to," and so on.

In conversation, can you use more than one modal at a time? (e.g., "I might could do that" to mean "I might be able to do that"; or "I used to could do that" to mean "I used to be able to do that")

- yes
- no

Do you use the word "spendy" to mean "expensive"? (e.g., "Admission is free, but if you need to buy food it could get spendy.")

- I say it and use it in writing.
- I say it, but I don't write it.
- I don't use it, but I hear it often.
- I don't use it, but I know what it means.
- I don't think anyone says this.

What do you call the miniature lobster that one finds in lakes and streams for example (a crustacean of the family Astacidae)?

- crawdad
- crawfish
- crayfish
- mudbug
- I have no word for this animal.
- other (please write in)

What do you call the little black (or gray or brown) creature (that looks like an insect but is actually a crustacean) that rolls up into a ball when you touch it?

roly poly/rollie pollie

pill bug

potato bug

other (please write in)

I don't know this creature.

I am familiar with this creature, but I have no word for it.

Do you pronounce "cot" and "caught" the same or different?

the same

different

What word(s) do you use to address a group of two or more people? Select all that apply.

you

you all

y'all

you guys

yous, youse

you'uns

yins

other (please write in)

What's your generic informal term for a sweet carbonated beverage of any flavor? (As in: "We have iced tea, lemonade and three kinds of \_\_\_\_\_: Pepsi, Dr. Pepper and ginger ale.")

soda

pop

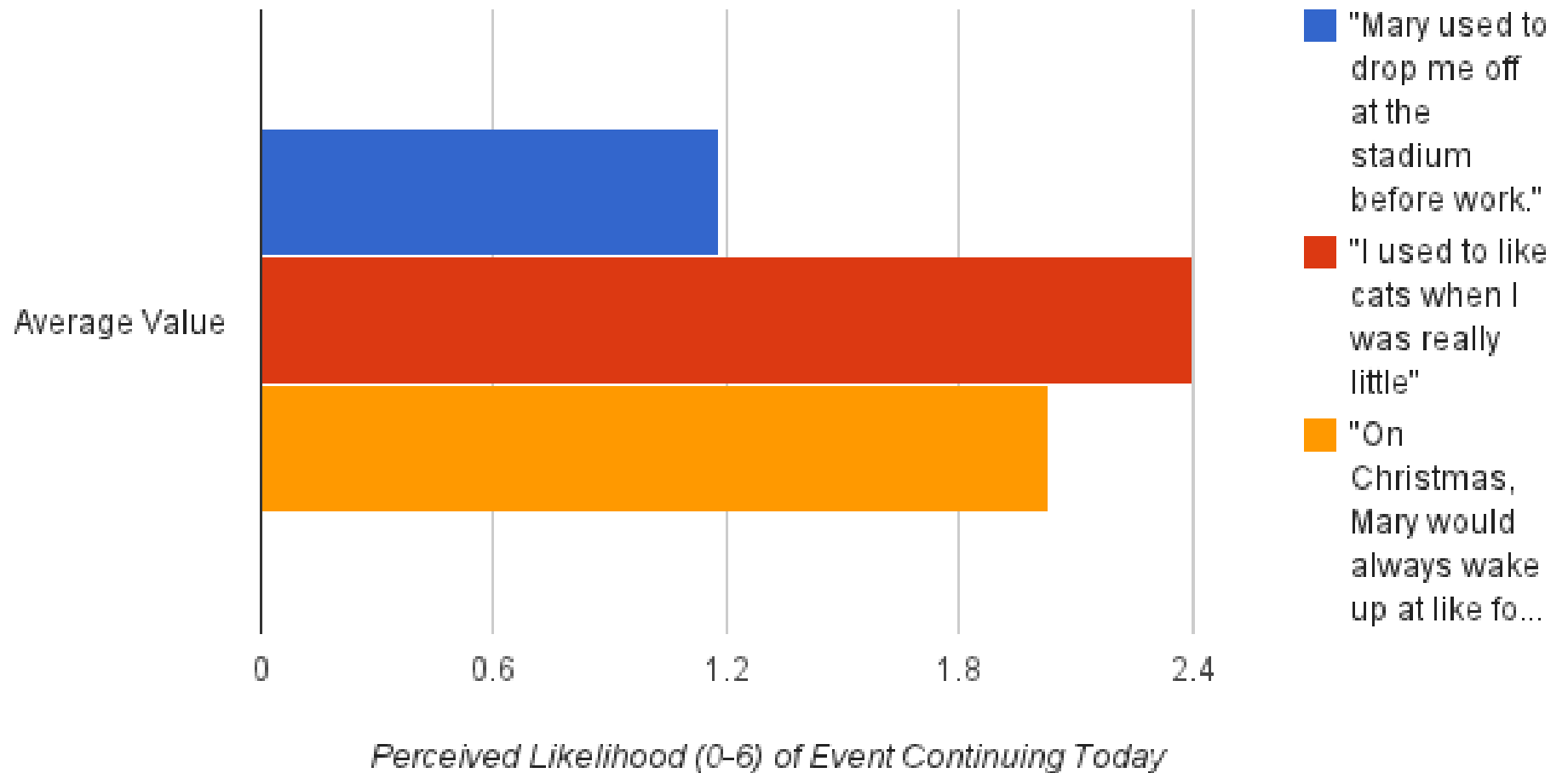
soda-pop

Coke

Coca-Cola

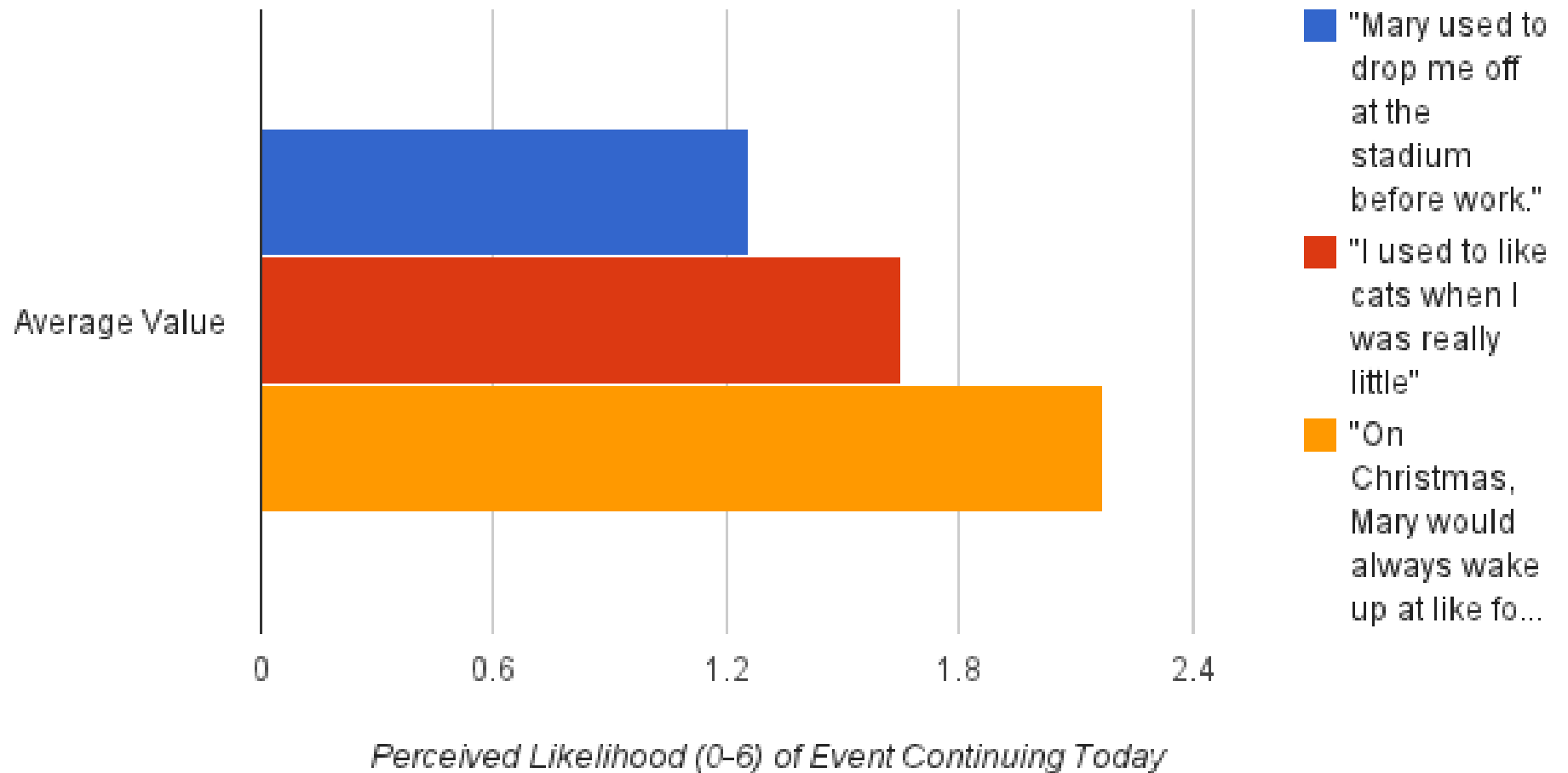
other (please write in)

## Relative Likelihood of Continuance: Oregonians



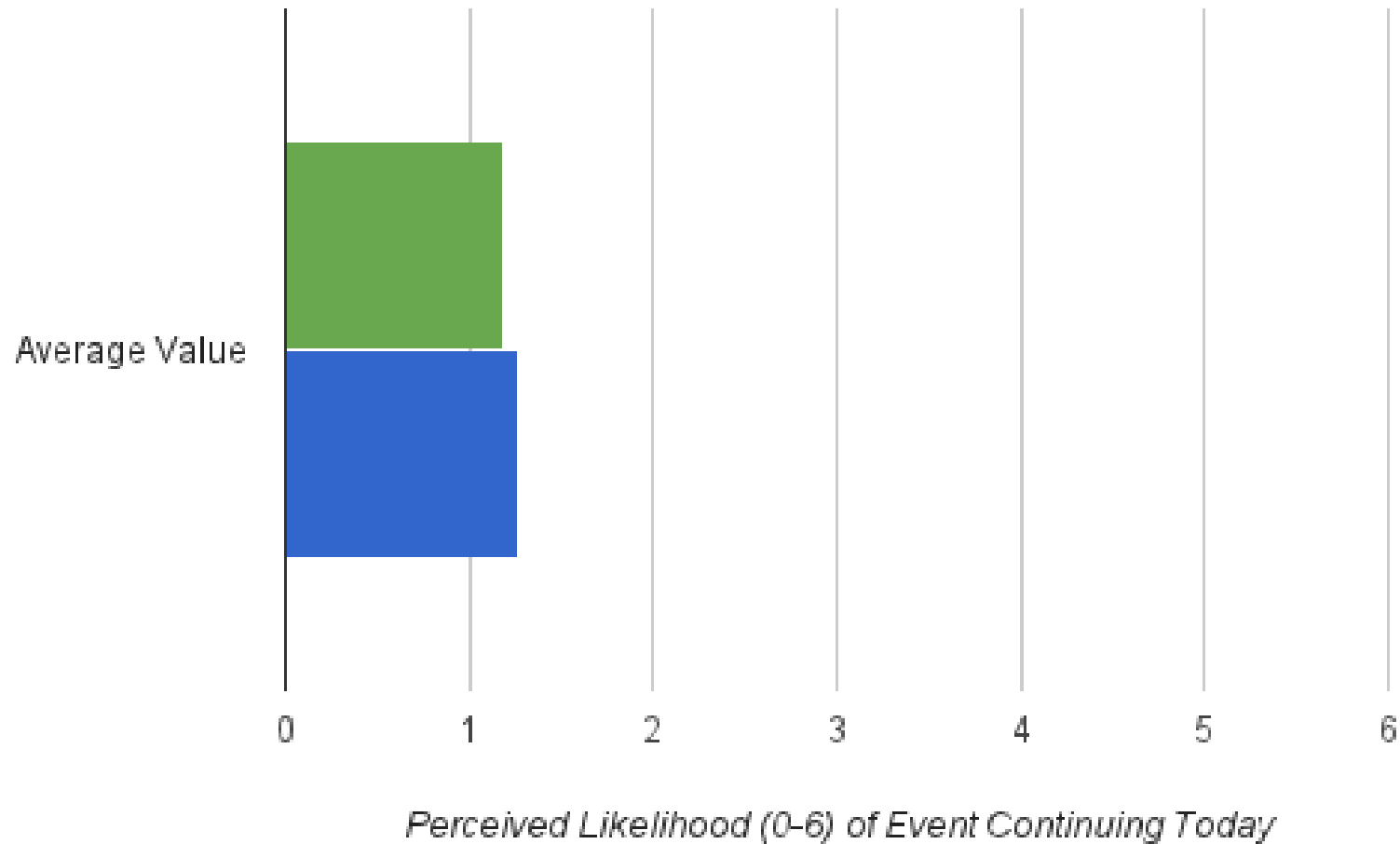


## Relative Likelihood of Continuance: Non-Oregonians



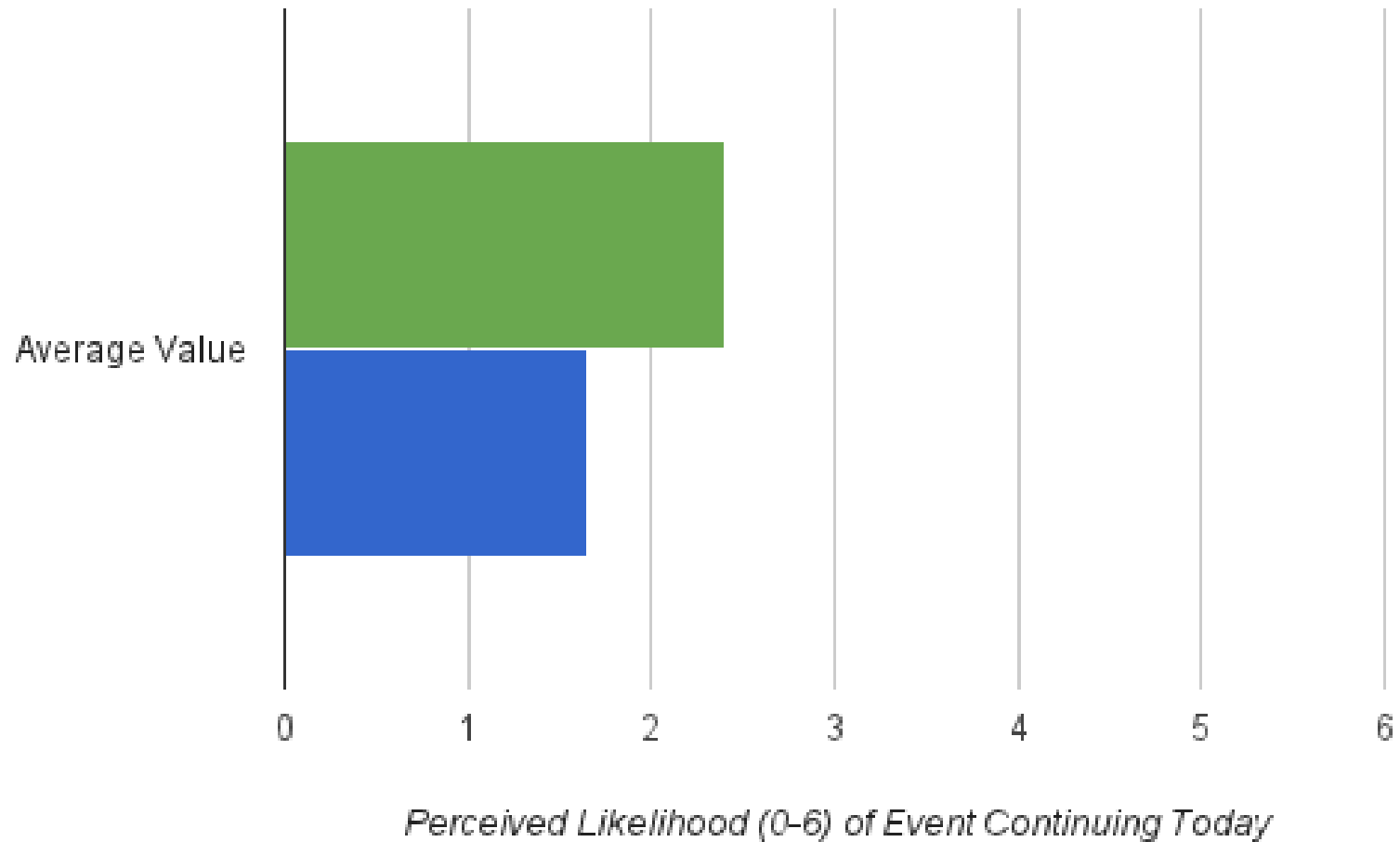
# “Mary used to drop me off at the stadium before work.”

Oregonians Non-Oregonians



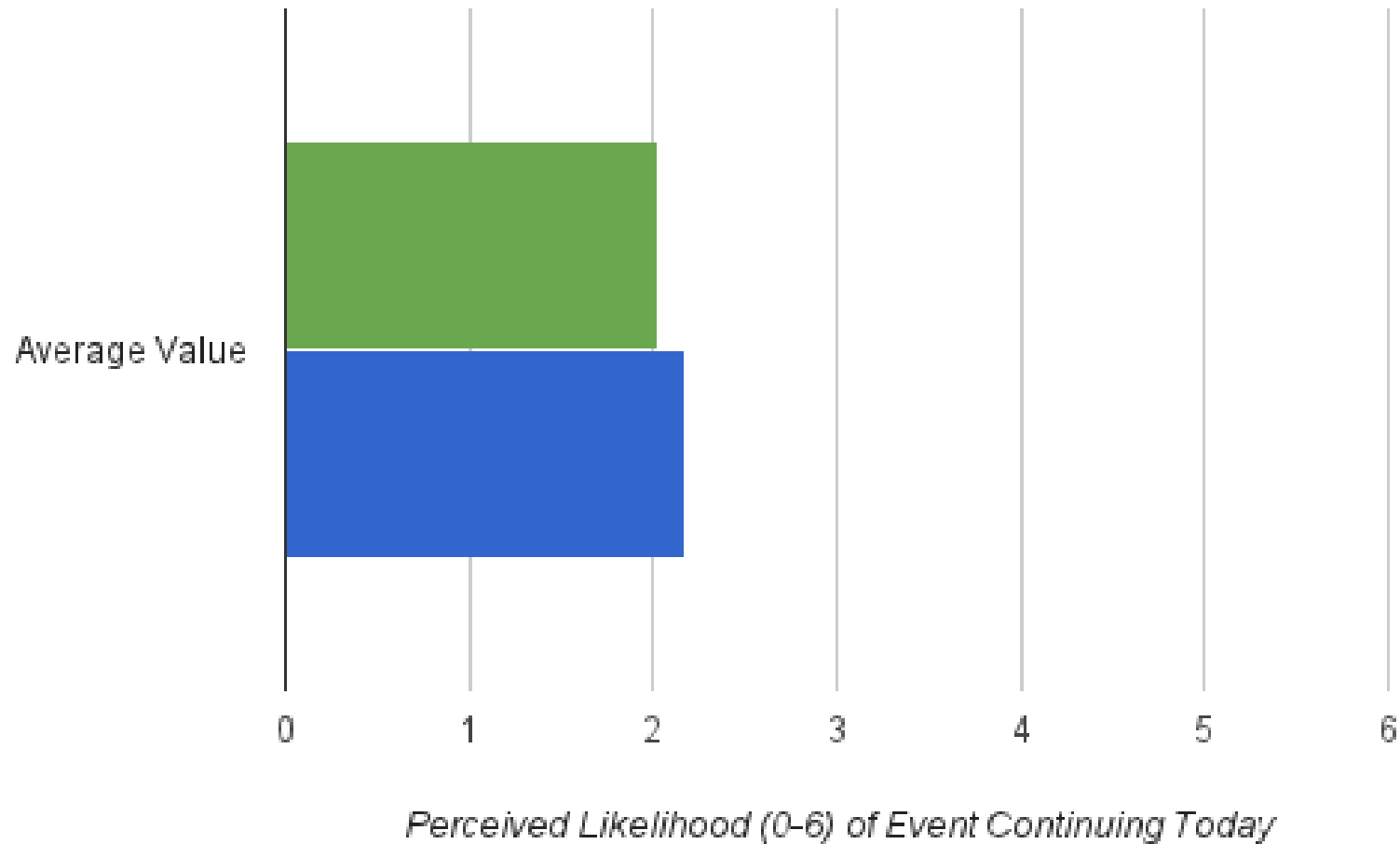
## "I used to like cats when I was really little."

■ Oregonians ■ Non-Oregonians



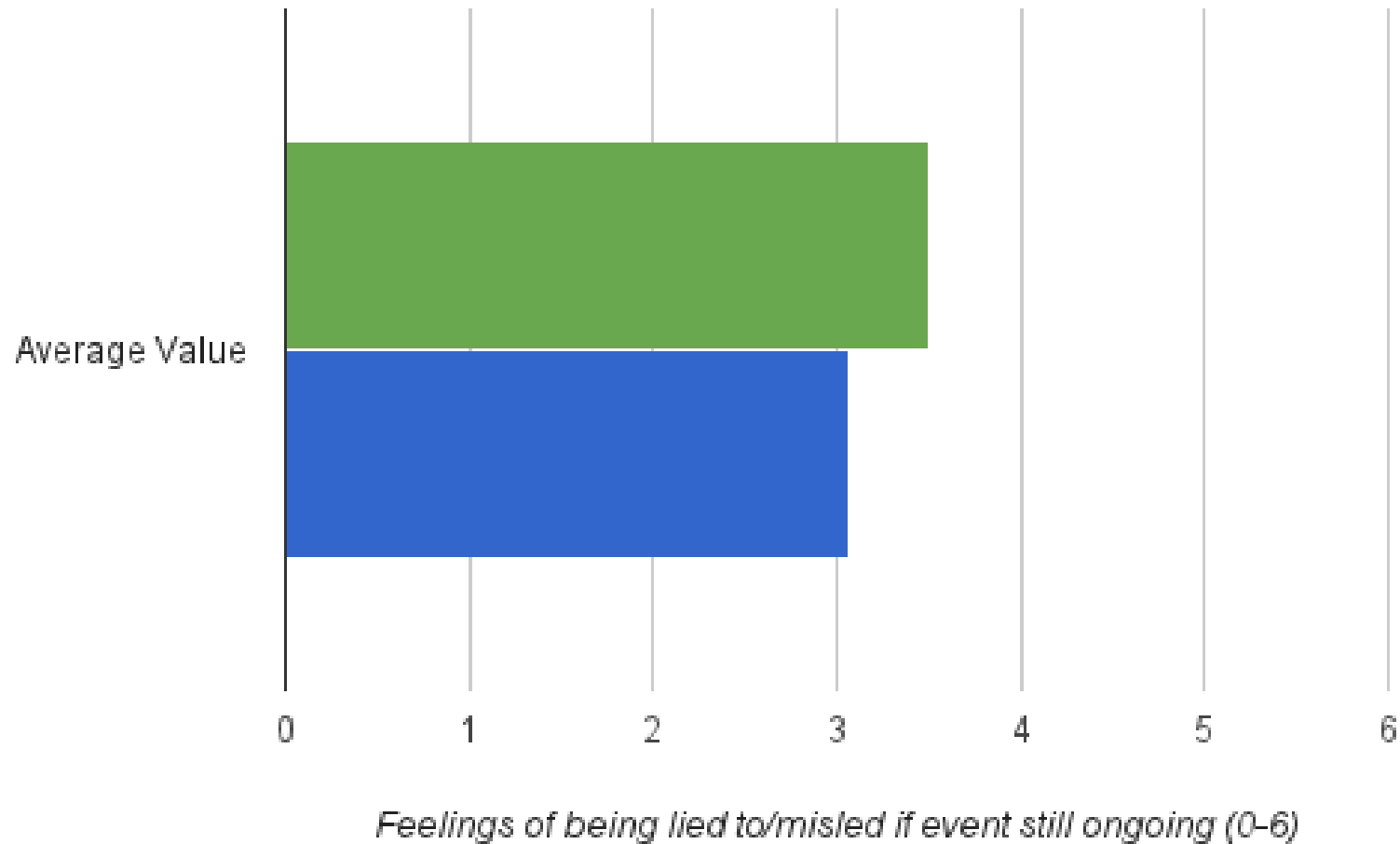
# "On Christmas, Mary would always wake up at like four o'clock in the morning."

Oregonians    Non-Oregonians



# "Joan used to give her advice about all sorts of things."

■ Oregonians   ■ Non-Oregonians



## "I used to hang out with him."

■ Oregonians ■ Non-Oregonians

