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Mapbook of Syntactic Variation in American English: Survey Results, 2015–2019

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Yale Working Papers in Grammatical Diversity 2020
Research Report

Mapbook of Syntactic Variation in American English: Survey Results, 2015–2019

Jim Wood[1]*, Kaija Gahm[1], Ian Neidel[1], Sasha Lioutikova[1], Luke Lindemann[2], Lydia Lee[1], Josephine Holubkov[1]

Abstract
This work presents the results of a series of acceptability judgment surveys conducted by the Yale Grammatical Diversity Project (YGDP) between 2015 and 2019. It contains over 200 maps of some 194 sentences, covering a wide range of syntactic constructions, including dative presentatives, personal datives, extended benefactives, the *have yet to* construction, the *done my homework* construction, *wicked*, *hella*, the *so don't I* construction, the *alls* construction, the *come with* construction, *fixin' to*, the *needs washed* construction, non-polarity *anymore* (aka "positive anymore"), and many others. For each sentence, we also provide some basic demographic information, such as how the sentence judgments varied by age, race, gender, education, and urban/rural classifications. We describe the goals of these surveys, as well as how they were designed, administered, processed, and mapped, along with a brief introduction to the history of the YGDP. In addition to providing a detailed look at syntactic variation in U.S. English to an extent that has previously been unavailable, we hope that this work will be useful in linguistics classrooms at all levels, and will provide the springboard for further, more detailed studies of the individual constructions, geographic regions, and linguistic and social factors connected to syntactic variation in U.S. English.
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Keywords
dialect syntax — microsyntactic variation — GIS analysis

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1 Data Collection

1.1 Introduction

The Yale Grammatical Diversity Project began in 2010 as a cross-fertilization of Larry Horn's work on American English and Raffaella Zanuttini's work on syntactic dialect variation. One of the fundamental observations that led to the project was this: from the perspective of a theoretical syntactician, syntactic dialect variation in American English was—and to a large extent remains—sorely understudied. We lacked answers to some of the most basic questions about which aspects of American English syntax vary, where such variation is found, and how robust that variation is. This is not to say that syntactic variation in American English was completely unstudied before the advent of our project. Some excellent work had been done by sociolinguists, dialectologists, typologists, and other linguists—enough to know that phenomena certainly existed that would bear in deeply interesting ways on the kinds of questions theoretical syntacticians ask (see Zanuttini 2014; Zanuttini et al. 2018 for discussion of previous work). But there was a lot of information that we simply did not have. One thing in particular that was found to be lacking was "negative data": information not just on which constructions existed and where, but which constructions were actually rejected by speakers and where. When Jim Wood joined the project in 2012, the team began working to address this gap by administering surveys online. Their methodology followed work that experimental psycholinguists and social scientists had already begun doing, but they modified these surveys along the lines of those used in traditional dialectology and more recent dialect syntax projects. The overarching goal was to create a database of acceptability judgments that would bear on questions of interest to syntacticians and provide information about where various constructions of interest were accepted and—crucially—rejected. The database of judgments described in this paper is the result of these efforts.[1]

Initially, Zanuttini and Wood conducted several pilot studies to determine both the viability of using online surveys to study syntactic dialect variation and the best practices for doing so. These pilots complete, they applied for and were awarded a National Science Foundation grant to continue to develop the methodology and use it to ask and answer several specific empirical and theoretical questions.[2] As we discuss below in more detail, the nature of the questions that Zanuttini and Wood asked in the grant-funded work played a major role in determining the types of sentences that populate the database described in this paper.[3]

The goal of this paper is to describe the database of sentences as it currently exists, in order to form a backdrop for other studies that we are currently conducting with this data. As will become clear throughout, we intend for the database to continue to evolve, both in the data it contains and in the way that data is processed and stored. Nevertheless, we would like to consider the current state to be something of a stopping point, one static stage in the overall evolution of the project that can be used and referred to, and which future versions can build on. We begin by briefly discussing our survey methods in section 1.2. Then, in section 1.3, we discuss how our survey data was processed. In section 1.4, we discuss the kinds of sentences we asked about in our surveys and explain why they were included. In section 1.6, we discuss the process for generating the maps and graphs that make up the remainder of this work, along with the information necessary to properly read and interpret them. From there, we proceed to discuss in some detail which sentences appeared on which surveys, and we provide basic maps, statistics, and descriptive graphs reflecting the distribution of acceptability judgments for each sentence.

1.2 Survey Methods

In this section, we provide an overview of the survey methodology used to collect the data, repeating and referring to some of the details from our previously published studies. Our intention here is not to be comprehensive, but to be only as detailed as is necessary to explain the source of the data that populate the current database.

1.2.1 Generating test sentences

The sentences included in our surveys came from several different sources. Some sentences were simply constructed by us, using our native speaker intuitions or our own hypotheses about what a natural sentence might be. Others were taken directly from the linguistics literature, and we have tried to note below when that is the case. Some were attested examples—often (but not always) found through web searches—or were adapted to some degree from such examples. We do not always note when this is the case. In some cases, it is actually challenging to trace the 'history' of our sentences, since we often spent quite a bit of time talking about them, and they went through numerous iterations before we ever included them in a survey. Some sentences started out as attested sentences, but were altered so much as to be unrecognizably different from the original.

In order to track sentences across surveys and in the database, we assigned each one a unique, permanent number. Numbers began at 1000 and increased sequentially. Some numbers are missing because some sentences were discarded, used only on pilot surveys, or never included in surveys despite our original intentions. So in fact, the lowest number is 1002, *Here's you a piece of pizza*. In the tables below, sentence numbers are prefixed with "F"; for example, "F1002" refers to sentence 1002. The F was added to resolve technical problems caused by numeric column headers; the choice of "F" (over any other non-numeric character) was arbitrary, and carries no meaning.

[1] We will refer to the resulting collection variably as a database or a dataset. At present, the data are stored together in long form as described in detail below, but we are currently in the process of converting it to a more efficient format as a relational database.

[2] The NSF award was BCS-1423872 *The Microsyntax of Pronouns in North American English*.

[3] The pilot studies also explain why in the current dataset, survey numbering begins with Survey 5—Surveys 1-4 were pilot studies from the pre-grant period.

The permanent numbers have proved invaluable in constructing this database, but early on we encountered a potential issue with the question of what counts as unique. As mentioned above, we sometimes modified sentences from their original forms, raising the question of when and whether such modifications qualified as a "new sentence". What if we only changed an exclamation point to a period, or a hyphen to an en-dash? What if we changed one word, but the sentence fulfilled essentially the same function? Should the sentence number somehow indicate these minor changes? In these cases, we sometimes assigned decimal numbers, such as 1039.1, which could be seen as a different version of 1039. This method preserves the relationship between similar sentences, allowing their results to be collapsed later on if desired in later analyses. To date, however, we have done little to no collapsing of this kind. For all practical purposes, 1039.1 should be treated as a unique sentence number.

1.2.2 Administering and distributing surveys

The vast majority of surveys included here were distributed through Amazon Mechanical Turk (AMT).[4] Initially, we designed surveys directly within AMT. However, we quickly found that the interface used there did not have the kind of functionality we needed, so we instead began designing the surveys on Qualtrics, and administering them on AMT by providing a link to the Qualtrics survey. After completing the survey, each AMT participant would receive a completion code from Qualtrics and paste it into the AMT interface, so that we could verify that they did indeed complete the survey. In some cases, we administered a survey in part through other means, such as by posting the link to social media or distributing it through our professional networks. However, these distribution methods account for only a small proportion of our data.

We required that AMT survey participants be located within the U.S. The surveys varied in terms of whether we required a high AMT approval rating to participate. Generally, we did not place heavy restrictions on approval ratings, since we found that doing so did not increase the quality of our data in any way that we could detect. In order to collect data from less populated areas of the U.S., we often ran several iterations of a survey, restricting each to participants who were currently located in certain states. For example, the Upper Midwest generally had few participants, so sometimes we would run a survey and restrict it to participants currently in, say, North Dakota, South Dakota, or Montana. Indeed, while a more general AMT survey often got hundreds of participants within minutes, some of these geographically restricted surveys could take a week or more to get even 10–15 participants.[5]

In general, we did not attempt to restrict survey participation to certain subsets of AMT workers. We could imagine, for example, asking participants to abstain from taking the survey if they were in a certain age group, or if they were from a certain region. However, we could never know if participants' self-reports were accurate, and we did not want to provide any incentive to lie. Participants are paid for their participation–between $0.88 and $0.98, depending on the survey–and while this compensation may not seem like very much, it is in fact considered quite high among AMT HIT's. We also did not seek more covert ways of excluding participants, such as based on their responses to a few initial questions. Among people who use AMT regularly, there are many discussion boards and networks of communication, and it could easily become known what the "right answer" is.[6]

1.2.3 Demographic representation

As we have noted in previous publications, the representation of various demographic categories in our AMT participant sample was fairly similar to what has been found in general for AMT studies. AMT demographic representation which is not a perfect sample of the U.S. population, but it is nevertheless far more inclusive than what we might find, for instance, in a typical university setting. Regarding gender, our sample is somewhat skewed toward self-identified females rather than males, although we had plenty of both for statistical purposes. We also included options for two transgender identities—female-to-male (FTM) and male-to-female (MTF)—as well as "Not Sure" and "Other". A very small percentage of participants selected these options. Different educational levels were fairly well represented, although very few participants reported that their highest education level was "Some high school". Race, was heavily biased toward white participants. For sentences with large numbers of participants, however, we sometimes have a large enough sample to see how race correlates with acceptability. See section 1.2.4 for further discussion. Our sample is biased toward younger speakers, which is perhaps not surprising given that our survey is conducted on a relatively new media platform.[7] However, we actually do find quite a wide range of ages, and it is possible in many cases to see the effect of age on the acceptability of a construction. Different reported income ranges are also fairly well represented in our sample. In addition to these demographic categories, participants were asked to report their primary childhood residence (where they were from) and how long they lived there, their current location and how long they lived there, and the primary childhood residences of their mother (guardian 1) and father (guardian 2). The demographic distribution of our survey participants across all surveys is shown in (1) below.

[4] AMT is an online platform where researchers can post so-called "Human Intelligence Tasks" (HIT's), to be completed by people registered with AMT as workers. HIT's are small tasks that are hard for computers to perform, but easy for humans—such as taking surveys. AMT workers are paid for each task they complete.

[5] Note that the points shown on our maps represent participants' childhood residences, while the AMT geographic restriction is only sensitive to where respondents are currently located. So if we were trying to get more participants from Montana, we would restrict a survey to Montana (and usually at least a few more states), and hope that many of the participants would be from Montana. It generally worked quite well; even if some participants weren't from Montana, some were, and many others would be from nearby less-populated places that we also needed to fill in.

[6] For this reason, we also didn't withhold compensation from any worker who failed the controls, unless they didn't complete the survey. We did not want people trying to figure out what the "right" answers to the sentences were—quite the opposite!

[7] Amazon Mechanical Turk was launched in 2005.

(1)

Survey			**Income**		
5	365	7.30%	Less than $12,500	371	7.42%
5b	698	13.96%	12,500−24,999	783	15.66%
6	478	9.56%	25,000−37,499	851	17.02%
6b	911	18.22%	37,500−49,999	676	13.52%
7	303	6.06%	50,000−62,499	649	12.98%
8	539	10.78%	62,500−74,999	453	9.06%
9	807	16.14%	75,000−87,499	348	6.96%
11	349	6.98%	87,500−99,999	263	5.26%
12	551	11.02%	$100,000 or more	607	12.14%
Gender			**Age group**		
Female (includes MTF)	2826	56.51%	18-30	1800	35.99%
Male (includes FTM)	2155	43.09%	31-40	1601	32.01%
Other	20	0.40%	41-50	771	15.42%
			51-60	542	10.84%
Education			61-70	261	5.22%
Some high school	24	0.48%	71-80	23	0.46%
High school diploma	530	10.60%	81-90	2	0.04%
Some college	1297	25.93%	91-100	1	0.02%
Associate degree	581	11.62%			
Bachelor's degree	1873	37.45%	**Race**		
Graduate degree	696	13.92%	White	4236	84.70%
			Black	265	5.30%
Urban/Rural			Asian	206	4.12%
Urban	3808	76.14%	Hispanic/Latino/Latina	171	3.42%
Urban Cluster	704	14.08%	Other	91	1.82%
Rural	489	9.78%	Native American/Amerindian	27	0.54%
			Pacific Islander	5	0.10%
Total	5001				

1.2.4 Demographic representation, race, and dialect variation

At least two factors contribued to a lack of consideration of demographic factors like race in our maps below: first, a lack of participants; and second, a lack of strong hypotheses.

Because we were unable/unwilling to place further restrictions on participation, we were unable to achieve good representation of specific demographic groups in our sample of participants. Ideally, the demographic distribution of our survey participants would mirror that of the U.S. population–we might even prefer to have some demographic categories overrepresented. Race, for instance, is often an important factor in language variation, and it would be deeply interesting to examine the interaction between race and other social categories, including regional dialect.[8] However, limited sample size is already a problem when it comes to understanding syntactic diversity, even before considering the interaction of geographic region with other categories. We have found that in order to confidently find all but the most robust geographic patterns, we need at least 500 data points, and ideally 800 or more. We don't always achieve this in the maps in this work, and when we don't, we express our lack of confidence in the results (unless there happens to be a really robust pattern). The lowest N in the maps below is around 313 participants. Limited sample size is even more of a problem when it comes to factors like race. Suppose that we impose a lower bound of 300 participants for a particular racial category. If we were to distribute a survey intended to investigate regional variation in the speech of Black Americans specifically, our methods would require around 6,000 participants. To hit our normal "comfortable minimum" of 500, we would need 10,000 participants, and to reach 800, we would need 16,000 participants. On top of this, after the survey was complete, we typically had to removed data from around half of the participants for failing the controls.[9] Altogether, this would mean that we would need to pay 12,000 overall participants in order to get 300 Black participants, 20,000 to get 500, and 32,000 to get 800. These numbers are far higher than the number of participants we were able to recruit for a single survey, due to limitations on funding and time. But there was no practical or reasonable way to run a survey and restrict it to people identifying as Black. We see this as deeply problematic, because non-white speakers in general, and Black speakers in particular, have traditionally been sorely underrepresented in large-scale projects in American regional dialect variation, and the current project continues this unfortunate trend.

The second reason for our lack of consideration of race, which even more deeply constrains the first, is a lack of hypotheses about the intersection of race and dialect variation. There has to date been fairly little research on regional variation in African American

[8] Our data do allow for some of these comparisons, but in general our sample size is too small.

[9] Note: as described in 1.2.2, participants who failed the controls were still allowed to complete the survey and were paid.

English, and what research exists largely focuses on the lexicon or phonological system, rather than syntax. There is a large amount of research on the syntax of African American English as a whole, and numerous syntactic constructions that we could test. But we have no information on how, and even whether, these constructions are regionally differentiated. A lower bound of 300 is usable in cases where there are strong regional patterns or specific hypotheses to test, but lacking these we require many more participants. In fact, for many of the constructions that we do test, we find interspeaker variation which is not attributable to regional differences (so-called "variation in every room"(Zanuttini et al. 2018)). In most cases where we have found genuine regional variation, we already had hypotheses about the patterning; we have uncovered fairly few novel regional patterns. We have investigated at least two constructions that are known to be characteristics of African American English: null copulas and negative inversion. We found no regional variation in the former. The latter is more acceptable in the South. This parallels the literature on negative inversion in the syntax of white Southern speakers.

To adequately study race and dialect variation in the future, we will need to address two issues. The first is our method of recruitment, which currently does not allow us to survey a larger number of participants from a particular demographic. Secondly, we will need to develop a set of specific hypotheses about what kinds of constructions in African American English may vary regionally and where such regional variation may be found. Progress in either of these two areas will allow us to develop a better and more accurate representation of regional variation in American English more generally.

1.2.5 Survey Design

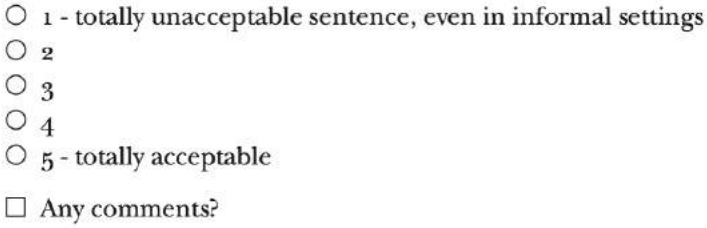
Most surveys had a similar structure with around 45 total sentences, of which 15 were control sentences, 15 were pilot sentences, and 15 were test sentences. We say more about what kinds of sentences fell into these categories below. Briefly, test sentences were generally a set of related sentences designed to test specific linguistic hypotheses, usually connected with particular theoretical questions. Pilot sentences had several purposes. They were used as fillers (so that participants did not see too many of the same sentence type), as tests to look for constructions that may be interesting for further research, and as ways of refining our mapping methods. These are discussed further in section 1.4 below. Control sentences were used to ensure that participants understood the judgment task in the way that we wanted them to. Surveys from participants who answered the control sentences in ways that were sufficiently different from our expectations (on which see below) were excluded from the database. The sentences were presented in a pseudorandomized order, so as to prevent participants from seeing too many of the same sentence type in a row: sentences were divided into chunks of 5 or so, with different kinds of sentences in each chunk (for example, one unacceptable control, one acceptable control, one test sentence and two distinct pilots). The chunks were randomized and the order of sentences within the chunks was randomized.

The survey instructions read as follows:

> Informal, casual language can be different in different places. The goal of this survey is to find out about your language, and the language spoken where you live and where you grew up.
>
> ***We are not interested in what is correct or proper English.***
>
> We are instead interested in what you consider to be an acceptable sentence in informal contexts. You will be presented with a sentence, or with a context plus a sentence. You will then judge the acceptability of that sentence on a scale of 1-5, with 1 being unacceptable and 5 being acceptable.
>
> It may help to read each sentence aloud before giving your judgment.

The sentences were judged on a Likert scale of 1 to 5. 5 was labeled as "totally acceptable" and 1 was labeled as "totally unacceptable sentence, even in informal settings". The latter label was intended to reinforce the point made in the instructions that we were not interested in what was considered correct or proper grammar. Participants were given the opportunity to comment on any given sentence. An example of a sentence is given in (2).

(2) **Here's you a piece of pizza.**



Participants tended to take around 12 minutes to complete each survey. See Zanuttini et al. (2018), especially the supplemental material there, for more details about the survey structure and to view a sample survey in Qualtrics and html formats.

1.3 Data Processing

In this section, we describe how the survey data were processed and compiled into a single dataset. We include a discussion of control sentences and how they were used to filter responses, along with other issues of processing. The discussion here is somewhat brief, intended only to make the basic structure and format of the database understandable. For more details on the issues discussed in this section, see Zanuttini et al. (2018), and especially the supplemental material included there.

1.3.1 Criteria for inclusion

When a survey was administered to a certain number of participants, we had to decide which participants' surveys to include in future analyses, and which to exclude. There were two primary factors that led to the exclusion of a participant's survey. The first was geographical. We asked participants what they considered to be their primary childhood residence—the place that they lived longest as a child. We then asked how long they lived at this location. If they answered 6 years or less, we excluded their survey. If they answered 8 years or more, we included it. If they answered 7 years, we included it if the participant's current location was less than 50 miles from the primary childhood residence.

The second primary reason for exclusion was failing the controls. Each of the control sentences was intended to be either acceptable to everyone (grammatical controls) or unacceptable to everyone (ungrammatical controls). We have tried various means of determining what it means to "pass" the controls and be included. On the one hand, we want to make sure we only include participants who have sufficient proficiency in English and understand the acceptability judgment task in the way that we intend for them to understand it. On the other hand, we do not want to throw away data frivolously; there is always some noise in data like this, so to remove an entire survey because a participant accidentally hit the wrong button once seems excessive.

In the current version of the database, our exclusion criteria involve judgments of individual control sentences, as well as a participant's average judgment over all of the controls of each type. That is, if a participant judged an ungrammatical control sentence as a 4 or a 5 (accepting it, when they should have rejected it), or judges a grammatical control sentence as a 1 or a 2 (rejecting it, when they should have accepted it), then their survey gets one "flag". If a participant's average rating of grammatical controls was less than 4, or their average rating of an ungrammatical control was more than 2, then their survey gets one "flag". Surveys were removed if they received two flags.

Surveys might be excluded for two other, more straightforward reasons. First, if a participant took the same same survey twice, they were excluded (or only the first response was included).[10] Second, if a participant didn't finish a survey, we generally did not include it. The exception was if only one question was missing. This sometimes happened in what we suspect was a technical issue. We felt that it would be safe to include such surveys as long as they had no other problems (e.g. if they passed the controls). These exclusions also explain why the number of participants may differ by one or two for different sentences on the same survey.

1.3.2 Geographic Information Appended

First, we geocoded all the geographic information (primary childhood residence, current location, parents' primary childhood locations) to the granularity level of ZIP codes.[11] Once we had coordinates for all the data points, we imported the data into ArcGIS Pro, mapping out survey participants by primary childhood residence. We removed all points that were located outside of the continental United States (that is, we also removed points from Alaska and Hawaii, as well as points in other countries). This was because if we expected to do geographic analysis, the points in Hawaii and Alaska were simply too few and (more importantly) too far away.[12]

We then used ArcGIS Pro to append various kinds of geographic information from other sources. For example, we created shape files corresponding to dialect regions proposed in Carver (1987) and Labov et al. (2006). We used k-means clustering on the latitude/longitude coordinates to create a more or less random set of regions that could be used for aggregating points. We extracted, for each participant, information about which of these different regions intersected with their primary childhood residence, and appended these data to the database. We used census data to import county-level information on population density and regional demographics, and census-block-level information like urban area classifications.

One drawback to the current form of the database is that many of categories are somewhat opaque, so a separate guide is needed to use them. The guide is included as an appendix to this paper, and is included separately as supplemental material. Another drawback has to do with the way that the Carver regions were imported. Carver 1987 conceived of regional dialect variation as involving layers that were superimposed over each other, and whose topology waxed and waned. A single point could then be in the general West and simultaneously in the Pacific Northwest. It would not do to include only the most specific regions, for at least two reasons. First, generalizations could be lost, if the larger region was what mattered for the distribution of some phenomenon. Second, we might not always have enough datapoints for the most specific regions. Beyond these two reasons, choosing just one level of analysis seemed to be at odds with the spirit of Carver's regions in the first place. As a result, we have three columns in our dataset corresponding to Carver's regions: Region,

[10] A single particpant could, however, take different surveys at different times.

[11] One drawback of this level of granularity is that there are many overlapping points—identical coordinates for people who are from the same ZIP code. In future versions of the database, we hope to get around this by jittering the coordinates, but doing this in a way that respects the original zip code reported is not a trivial task.

[12] In future versions of the database, we hope to include some of the data removed in this step in a way that it could easily be removed when necessary. For example, we might decide to focus on participants' current, rather than childhood, location, and to apply the continental-US filtering based on these locations. Moreover, some questions could be explored with a database like this which have nothing to do with geography, so it seems a shame to fully remove data on purely geographical grounds. As with other areas where we hope to be more inclusive of data in the future, this is mostly a practical issue, concerning how easily we would be able to get the data we want for any given study. The current form of the database is structured around the kinds of studies we were doing when we were building it.

SubRegion, and SubSubRegion. But this raises a practical difficulty, because although the largest category, Region, partitions the United States more or less completely, the other two categories do not. So if one is to use the SubRegion or SubSubRegion category, there are a lot of empty cells. In many cases, what we may really want is "the most specific category we know about", but we were reluctant to fill in the blanks in this way, because it is not clear that we always want this. For now, it will be up to the researcher working with the database to determine how best to manipulate the data to address this issue.

1.3.3 Compiling into a database

Compiling a usable database of participants' grammaticality judgements required us to reconcile several different survey formats. For this reason, the procedure we used for data cleaning required considerable manual examination of the data and direct selection of particular columns and rows, as well as data cleaning treatments that varied by survey. A primary goal of our work going forward is to streamline this cleaning process and create a robust data cleaning workflow that will be able to be applied, in a standard and automatic way, to future surveys.

Data cleaning and compilation was performed in R, version 3.6.2 (R Core Team 2013). We loaded raw survey data into R and separated acceptability judgments from participants' written comments on the sentences, as well as from demographic and technical information. As shown in 2, in our surveys, the five-point ratings scale was presented to participants along with words to explain the ratings (ranging from "totally acceptable" to "totally unacceptable sentence, even in informal settings"). In some cases, these words appeared in our results file (and in some cases they did not).[13] We removed words and standardized ratings to integer values from 1 through 5.

We joined together ratings from all surveys into one table, adding a column "Survey" to keep track of the origin of each dataset. Then, we joined the ratings data to information from a separate "master list" containing the text and standardized number of each sentence. During this process, we identified several inconsistencies between our two datasets. For example, we found cases in which the sentence number recorded in a survey did not match the number assigned to the same sentence in the master list. We cross-checked this information and made edits where appropriate, sometimes differentiating very similar sentences with decimal numbers where this had not already been done.

Finally, we converted ratings to "long," as opposed to "wide," data format, following the principles of tidy datasets (Wickham 2014). In "long" or "tidy" format, each variable has its own column and each observation has its own row. This means that values in some columns are repeated: for example, since 899 participants judged sentence F1228, the number "F1228" appears in 899 rows in the `sentence` column. Surveys in the form retrieved from Qualtrics were originally formatted in "wide" format, where one row represented one survey participant, and each sentence number had its own column.

The tidy data format follows the principles of relational databases and is conducive to storing data efficiently, preventing errors and inconsistencies, and facilitating analysis and visualization, especially in conjunction with the `tidyverse` family of packages in R. However, this format comes with its own set of challenges, particularly with regards to cross-program compatibility. Data imported into ArcGIS for spatial analysis, for example, must be in "wide" format: each row must consist of one and only one participant, and one participant cannot occupy more than one row without severely distorting geographical analysis and processing time. At the moment, then, a conversion between formats is required for each transfer between the two programs. As part of our work in the future, we aim to develop an easy and consistent process for data format conversion, in order to facilitate analyses in both ArcGIS and R.

In addition to tidying sentence numbers and participants' ratings, we cleaned and standardized the demographic data collected in the surveys. We changed column names in order to fix inconsistent naming between surveys. We appended a subset of the demographic information, including gender, race, income, educational attainment, and number of languages spoken, to the ratings data, joining by a unique key for each participant. Finally, we joined the ratings and demographic data to geocoded localities, as described in section 1.3.2.

1.4 Data Collected

We collected survey data for this database in the interest of sevearl interrelated goals, which we describe briefly in the following subsections. These goals shaped the nature of the data, as well as what was included (or not) in the final database. In the final two subsections of this section, we briefly describe what is not included in this database, and some ways in which future iterations may differ. Broadly speaking, our goals were (i) to investigate a particular set of constructions of theoretical interest in detail, (ii) to develop methods for investigating dialect syntax on a large scale using survey data, and (iii) to test a variety of phenomena that we had reason to think would vary across speakers of American English (we were primarily, but not exclusively, interested in geographic variation).

1.4.1 Primary Theoretical Goals

Our primary theoretical goal was to understand a construction that we originally encountered when it was mentioned in passing in by Horn (2014:334, fn. 7), which we refer to as the "dative presentative" construction.

(3) Here's you a dog.

[13] As far as we can tell, this inconsistency had to do with how the surveys were designed in Qualtrics, as well as changes over time in how Qualtrics results were processed into spreadsheet form.

We later discovered that this construction had been discussed in passing, under the heading of "indirect object", in a much earlier *American Speech* article, focused on various (mostly lexical) phenomena that the author had encountered in Kentucky (Dudley 1946). This construction was of substantial theoretical interest to us due to the explosion of research on noncore arguments and applicative constructions in the past couple of decades (McGinnis 2001, 2008; Pylkkänen 2002, 2008; Cuervo 2003; Hole 2006; Schäfer 2008, 2012; Bosse et al. 2012; Myler 2014, 2016; Wood and Marantz 2017), along with its apparent connection to the "personal dative" construction (see section 2.1 below), which has long been a prominent point of interest in work on American English dialect syntax (Wolfram and Christian 1976; Webelhuth and Dannenberg 2006; Conroy 2007; Horn 2008, 2013b; Hutchinson and Armstrong 2014).

Indeed, we now know quite a lot about these dative constructions, which we knew almost nothing about when we started. We will not review the details of these results here, but we refer the reader to our primary publications on this topic (Wood et al. 2015b, 2020; Zanuttini 2017; Wood and Zanuttini 2018). For present purposes, what is relevant is the effect that this goal had on the structure of the database, namely that that we have far more sentences exemplifying this construction than any other construction. While it is the construction that we have investigated in the most detail from our database, we do not think that we have exhausted the range of questions that can be addressed with this very rich dataset.

There were several other constructions of theoretical interest that we focused substantial attention on. Split Subjects (discussed in more detail in section 10) and the *have yet to* construction (discussed in more detail in section 3) motivated some of the sentences that were constructed as "primary" test sentences (as opposed to pilots or controls) in our surveys. As discussed in section 6, Survey 12 focused on verbal *rather*, the *needs washed* construction, and nonpolarity *anymore*. Unlike most of the pilot sentences, which were designed simply to probe for variation, these datasets were constructed with specific theoretically-driven questions in mind. In many cases, the results have not yet been published or even investigated.

1.4.2 Methodological Goals

In addition to investigating specific theoretical questions, we also had several methodological goals. First and foremost, we wanted to find out if we could ask and answer questions about dialect syntax through online acceptability judgment surveys in the first place. This was not obvious, and as far as we knew, had not been tried before. Previous dialect syntax projects relied on corpus data or in-person, on-location fieldwork, usually with specifically selected or screened participants. We initially had some concerns that we might not find reliable or replicable results, especially since we were presenting non-standard sentences in writing (which might raise a variety of issues in interpreting results of the task), and we had no opportunity to train participants in the task, specifically regarding what an acceptability judgment is.[14]

On the other hand, we did have reason to think that collecting acceptability judgments through online surveys might work. Written surveys have been used in dialect work before, in some cases by mail (Murray et al. 1996; Murray and Simon 1999, 2002). Moreover, acceptability judgment studies have been shown to be reliable among naive (non-linguist) participants (Cowart 1997; Sprouse 2007), even when conducted online using Amazon Mechanical Turk (Sprouse 2011). Using a small amount of funding available to us, we cautiously began to run a series of pilot surveys, and found initially promising results. After testing some variations on the presentation of the questions, we decided on the survey design described here. This, incidentally, is why the database starts with Survey 5—Surveys 1–4 were pilot surveys, where we were still working out the design. Survey 5 was the first survey that we felt confident enough to use to begin building the larger database described here.

As we began to analyze the pilot results, we first mapped them using the now-discontinued Google Fusion Tables. It quickly became clear to us that (i) we were finding interesting, meaningful results, and (ii) we needed to develop better ways to present our results visually and analyze them quantitatively. Our survey design, and the sentences included in the surveys, were also geared toward this end. With the help of online tutorials and statistical consultants in the Yale University Library system, we began to use ArcGIS to map out and analyze our results.[15] Ultimately, we developed a method of mapping our data that allowed us to present the raw data, a smoothed visualization of those data, and an indication of where the results were statistically significant. These methods were used in the creation of the maps in most of our publications and presentations from 2015–2019 (although the methods also evolved during this time, and continue to evolve), but are discussed in particular detail in Wood (2019b). We continue to refine these methods, and in addition have been developing further methods to create maps to present/address different aspects of the data.

1.4.3 Pilot Sentences

The methodological goals described above greatly influenced our choice of pilot sentences. It would not be enough to know that our survey design worked for the limited set of constructions of primary theoretical interest. We needed to know if we would be able to find a variety of geographic patterns across different kinds of constructions. For this reason, it was important to include pilot sentences that were (expected to be) characteristic of different regions. In addition to learning whether a given construction really does vary across speakers of different dialects, we used pilot sentences to refine our methods of analysis and visualization. Some of these refinements are discussed in detail in Wood (2019b).

[14] Of course, we provided instructions explaining that we were not interested in what was considered correct, but this is very often not enough. Many beginning linguistics students, for example, take at least a week or two before the notion of a non-prescriptively-based acceptability judgment really sinks in.

[15] We would like to give a special acknowledgment here to Hannah Haynie, who was a postdoc at Yale during this time on a completely different project. Hannah already knew how to use ArcGIS to map linguistic data, and she very helpfully answered many questions in the beginning, entirely in addition to the work she was doing at Yale otherwise.

By including pilot sentences on surveys, we also learned about these constructions themselves. In some cases, this new information led us to change our research focus (partly) to emphasize certain constructions in more detail. For example, early pilot work on the *have yet to* construction turned out to be more interesting than we had originally suspected, so *have yet to* became the subject of more focused study in later surveys (the results of which are discussed in Wood 2019b and Tyler and Wood 2019). The pilot results of the *needs washed* and verbal *rather* constructions also turned out to be interesting. These constructions became the focus of Survey 12 (the results of which have not yet been published, though see Wood (2019a) for some discussion of the results for verbal *rather*). There are still many cases throughout our dataset that warrant more in-depth study and have yet to receive it.[16]

1.4.4 What is not included (yet) and what may be in the future

The current version of the database does not include all of the data that we have collected, in some cases for practical reasons and in some cases for principled reasons. For example, Surveys 1–4 were not included because they were pilot studies–we used them to develop our methodology, but they were problematic enough to warrant exclusion from further study. Survey 10 is not included at this stage because its structure was quite different from the others, and we have not yet converted it to the format necessary for inclusion in the database. We hope to include Survey 10 in future versions of the database. Survey 10 actually consists of three separate surveys, which we will differentiate in some way (e.g. as 10.1, 10.2, 10.3, or as 10a, 10b and 10c). These surveys collected judgments on various aspects of relative possessive *that's*, as in *A table that's leg is broken*. This work was a collaboration between Randi Martinez and Jim Wood, and some of these results were presented at the Arizona Linguistics Circle in 2018 and the LSA meeting in 2019 (Martinez and Wood 2018, 2019).

Of the surveys included in the present dataset, we only included participants who passed the controls and who reported living in their primary childhood residence for at least 8 years. The latter was due to the fact that our primary focus was on geographic dialect variation, and if someone only spent a little more than a third of their childhood in a place, it did not seem to make sense to attach them to the map in that place. Similarly, the function of the controls was to include only participants who understood the acceptability judgment task in the way that we intended them to understand it.

However, in future versions of the database, we may consider adding some of these data back in. For one thing, the criteria used to include or exclude surveys was essentially arbitrary—reasonable, but arbitrary. There is no fundamental reason why we couldn't have chosen a primary childhood residence cutoff of 9 or 7 years, rather than 8. Similarly, for the controls, we could imagine various reasonable ways of relaxing the criteria for inclusion—or of making them more stringent. Preliminary work on the database by an undergraduate student, Jacky Chen, suggests that the our current exclusion criteria really do allow us to more reliably pick out the signal from the noise, but also that the data we currently exclude could still be informative. Jacky's work suggests that in some cases, the optimal exclusion criteria could vary from construction to construction.

All of these considerations suggest that it would be useful to adopt a more flexible exclusion approach that allows us to include more data in the database. As we develop tools to facilitate extracting data subsets from the database in a streamlined and user-friendly way, we will also consider adding back some of the data that is currently excluded. At the present time, it would be too laborious to include more surveys in the database, and exclude them in individual studies, so we have stuck with the processes used for the previously-published research on these survey results.

As one final note, we also expect that future versions of the database will include more surveys, as we investigate additional constructions and perhaps re-run some existing surveys to collect more data. For example, we have already run another round of Survey 11, which may more than double the sample size for that survey. However, since a number of projects have been based on the dataset prior to the addition of these extra data, and since we have not fully processed the new data yet, we have decided to move forward with the current database and add the extra data later.

1.5 Understanding the maps

The maps in this work are intended to present the distribution of participants who judge each sentence, so that the reader can see where there is geographic variation in acceptability. There is a tension in any such presentation between making a map clearly and intuitively readable and presenting the appropriate amount of detail (see Sibler et al. 2012 for dicussion). We have tried for a compromise: on the one hand, we want it to be easy for the reader to see patterns and their significance. On the other hand, we try not to gloss over the details or abstract away from the variation.

All maps were created in ArcGIS Pro.

1.5.1 What is on these maps?

The maps themselves have three kinds of information: individual participants (represented as dots), interpolation (represented as the background shading), and hot/cold spot regions (represented as red/blue borders). Each map's legend shows the sentence number, the text of the sentence, the parameter settings used to generate the map, and the number of participants represented.

- **Individual participants** are set as dots, which are white if the participant rejected the sentence and black if the participant accepted the sentence. The location of a participant's dot is the location that they reported as their primary childhood residence—that is,

[16] It is our hope that the present work will make it easier to propose and carry out such studies.

where they grew up. Our database also contains information on where each participant currently lives and where they say that their parents are from; this information is not mapped here. The judgment counts as "accept" if a participant judges a sentence as a 4 or a 5, and as "reject" if a participant judges a sentence as 1 or 2. Participants who judged the sentence as a 3 are not shown on the map. There are therefore more participants than dots. Note, however, that this is purely for visual purposes. In all quantitative analyses, 3s are included, 1s are different from 2s, and 4s are different from 5s. In addition, it is worth pointing out that the geographic information we collected was only at the level of the city, state, and in many cases ZIP code. Because of this, many overlapping points in major cities may show up as a single dot.

- **Interpolation** is represented as the shading covering the map. Interpolation allows us to predict hypothetical judgments for every spot on the map (represented as a cell). It does this on the basis of the X nearest points (where we choose the value of X) and an inverse distance weighted (IDW) algorithm with a certain power level, which we also set. For these maps, we used the 12 nearest points and set the power to .5, both of these being the values used for the maps that we have previously published. We then used the Focal Statistics tool to smooth the result. Smoothing replaces each "cell" with the average value within a specified radius (250 km was a default for our maps). This smoothing prevents unnaturally jagged shading that would reflect the happenstance distribution of our data rather than any real pattern. We want breaking points between shading colors to reflect a rough estimate of how the data might generalize beyond the current dataset. This rationale is similar to our reasons for displaying hot/cold spot regions on the map.

- **Hot/cold spot regions** are built on the basis of a statistical test to determine whether a cluster of judgments is higher or lower, in a particular area, than one would expect by chance. In order to fully understand how to interpret these regions, it is important to understand how the statistical test works and how that test feeds the construction of these regions. We will discuss this in some detail below. For now, we wish to emphasize that the exact location of the borders depends on parameters that can be set in several ways, and should therefore not be considered definitive. We might put it this way: a hot or cold spot region provides statistical support for the possibility that geographic patterns in that area are real.

1.5.2 Map metadata

The map metadata specify the exact parameters used to generate each map.

- **CD** refers to the critical distance set for these maps the hot spot test (referred to in ArcGIS as "Fixed Distance Band"), which we have set to 500 km by default. This line will also say "FDR on" if the False Data Rate correction is used.

- **Smoothing tolerance** specifies how much smoothing was done on the jagged borders generated from the Voronoi polygons. We set it by default to 250 km, exactly half of the default critical distance.

- **Buffer distance** indicates how much of a buffer was added to the smoothed borders, the three numbers indicating different buffers for different significance levels.

- **IDW power** indicates the power setting for the IDW interpolation (the shading).

- **Focal statistics radius** indicates the radius used for smoothing the interpolation shading.

- **N** indicates the number of participants represented in the map.

1.5.3 What do the hot/cold spot borders mean?

To understand the hot/cold spot regions, it is first important to understand what the hot spot analysis is. We have discussed this in detail in our other work (Wood 2019b). Here, we will describe how the process works in general terms, before providing more details on exactly how these steps were carried out. In short, a hot spot analysis applies to an individual point. It uses the Getis-Ord G_i* statistic (Ord and Getis 1995) to determine whether the values near that point are higher or lower than one would expect by chance, given the overall dataset. In order to run this analysis, we have to specify what "near" the point means, and whether everything counts to the same degree. We return to this below. For now, we note that each individual point is determined to be either a hot or cold spot at some level of statistical significance. The borders around the points indicate, roughly, the location of a region of contiguous hot or cold spots.

1.5.4 Hot/cold spot regions: Basic construction

The hot spot regions on our maps are built from the results of the hot spot test, but are distinct from it. First, the initial points are used to partition the entire continental United States into Voronoi polygons (using the "Create Thiessen Polygons" tool in ArcGIS Pro). A Voronoi polygon is a polygon drawn around a point X, such that every space within that polygon is closer to X than to any other point. So if two points are directly next to each other, a Voronoi polygon will draw a line at the midpoint right between them. Thus, each point gets its own polygon. The hot spot analysis that we conducted for these maps is based on the centroids for these Voronoi polygons, rather than the original points themselves.

We draw borders around any and all sets of contiguous hot or cold spots by dissolving the borders between individual polygons identified as hot spots, to isolate a region where those hot/cold spots are found. We then smooth out these borders, which are initially quite

jagged, and add a buffer around them, to make them larger.[17] We explain below our reasons for doing this. Our first point, however, is that the *existence* of these borders on a map indicates that the geographical variation in acceptability is stastistically significant, and thus is likely to be non-accidental. The *location* of the borders provides only an approximation of where that increase (or decrease, for cold spots) in acceptability begins to manifest. The interpolation can be used to guide the reader as to what the exact value in an area tends to be.

1.5.5 Setting critical distance

Returning to the hot spots test itself, recall that this is done on each individual point, subject to some parameters. The test compares the area around that point to the overall dataset: if the values around that point are higher or lower than one would expect by chance, that spot is considered a hot spot or a cold spot (respectively). (If not, it is neither.)

We noted above that there are different ways of deciding what counts as 'close' to a point for determining whether it is a hot/cold spot. In the maps in this book, we use what is called in ArcGIS a "Fixed Distance Band", which means that the user specifies a radius around a point.[18] Any other points falling in that radius count equally as 'close', and any points outside of that radius do not count as 'close'. The default radius that we chose for the maps was 500 km. This was chosen to provide a very broad, very coarse-grained sense of whether geographic variation is present. In many cases, it will smooth over or abstract away from genuinely meaningful regional variation inside the regions identified as hot or cold spot regions. We think of these regions as identifying areas that are different from the rest of the country, and which—crucially—warrant further investigation.

Notice also that the maps indicate three different levels of significance, at $p < .1$, $p < .05$, and $p < .01$. These levels are automatically generated as part of the tool in ArcGIS. That is, each point that is determined to be a hot spot is determined to be signficant at one of these levels of significance. They are useful in determining the strength of the pattern/result, and to help in identifying possible false positives (on which see discussion below). In general, $p < .1$ is considered quite weak, and may not necessarily be considered to pass the classic .05 threshold for statistical significance. If one combines this with the multiple comparisons problem inherent to this test, noted below in the discussion of the FDR correction, one should be particularly skeptical of results at this level in the non-FDR-corrected maps. However, we leave them in the maps because in many cases we suspect they do reflect real patterns that will survive further scrutiny. It is crucially important to note that like the locataion of the borders, the significance values of the borders are dependent on the parameter settings for the tool, such as the critical distance (CD) and the presence/absence of the FDR correction.

1.5.6 Smoothing the borders

As we mentioned above, we smooth the jagged edges of the borders of the hot/cold spot regions, and then create a buffer around them. So the first thing to note is that if a dot is barely inside a hot spot region border in one of our maps, there is a good chance that it was not itself a hot/cold spot. But there is also a(n overwhelmingly) good chance that that dot was part of the analysis that created a nearby hot/cold spot. There were two main reasons that we added the buffer.

The first reason for the buffer is that we wanted to smooth the borders of the hot spot regions, since there was nothing actually meaningful geographically about the jagged nature of the borders—they are based on Voronoi polygons, and are thus an accident of what the distribution of participants happens to be. Removing or adding one or two participants in an area can in principle have a profound impact on the shape of the jagged borders, and clearly, we would like our maps to express something more generalizable. However, the smoothing also reduces the overall size of the border, so that points that were actually significant hot or cold spots could fall outside of the border. The buffer counteracts this by extending the border back outwards again.

The second reason for the buffer is that without the buffer, points that influence the generation of hot spots end up falling outside of the hot spot region. But this creates a misleading picture. After all, the exact location of the borders has to be interpreted with care in the first place, since they can be affected by the parameter settings such as the Critical Distance. So to then draw a firm line that makes it look as though a nearby point is not part of the overall hot spot region conveys the wrong message. Given the way linguists tend to interpret these maps, the most accurate picture would in fact be to include within the border all the points that were part of the calculation—in our case, everything within a 500 km radius of the point in question. However, this goes too far the other way, and tends to include many points that are past the area of interest. It would also lead to dramatically overlapping hot and cold spot regions, which readers may find confusing. We want the borders to convey the general area where things start to change or are well in the process of changing. We have chosen buffers that we think do a decent job of conveying the actual approximate area in which the transition occurs (as seen, for example, by borders that come to be adjacent to one another). However, different parameter settings for the buffer would lead to visually distinct maps. It is important to keep this in mind, and not over-interpret the exact location of these borders. Closer study of those areas, perhaps with the YGDP data, perhaps with additional data gathered to address specific questions, is necessary to understand the linguistic situation more fully.

1.5.7 Detecting False Positives/Negatives and the FDR Correction

The hot spot analysis comes with an inherent multiple comparisons problem. Consider once again how the analysis works. It looks at one point, draws a radius around it, and compares the population within that radius to the overall population, to determine if the population in that area has higher values than one would expect by chance. Like parametric statistics in general, one determines how different the

[17] In our previous work, such as in Wood et al. (2020) and everything we published prior to 2020, we did not do the smoothing and buffer steps, so the jagged borders of this step remain in the maps published there.

[18] Strictly speaking, the hot spots are based on the centroid of the Voronoi polygon occupied by that point, as described above.

distributions are and sets a threshold for what counts as significant, generally .05, so that, informally, there is less than a 5% chance that the difference is an accident.

However, inherent in this reasoning is the assumption that accidents that look like significant results can happen. So now consider what happens when we run this test over and over again, with points near and far, for the whole dataset. If a sentence has 800 judgments, we run the test 800 times. We might ask how often we expect to see false positives—"accidentally significant" results (known in statistics as a "Type I" error). If the threshold is at .05, we expect this around 5% of the time, so with a dataset of 800, we might expect around 40 false positives. Clearly, we need some way to mitigate this. However, there is no way to fully remove the possibility of false positives or false negatives, so we will discuss below a variety of considerations that will help to identify them.

One way to account for this problem, however, is with the "False Data Rate" (FDR) correction. In essence, the FDR correction estimates the number of expected "false positive" results, and then removes, starting with the least significant hot spots, that number of hot spots. This reduces (but does not eliminate) the chances that results shown are false positives. However, it also increases the chances of a so-called "type II" error—false negatives. That is, in some cases, the signal is real, but the FDR correction removes it. In some maps in this mapbook, where we think there is a possibility that the FDR Correction is causing a false negative, we present maps without the FDR correction. The maps without the FDR correction should be interpreted with extreme caution—there is no automatic reason to assume that the results there are anything other than accidental false positives.

There are, however, several circumstances where we might suspect that those results reflect a real signal, and it is the FDR corrected maps that are false negatives. We will not enumerate all possibilities here. Some, however, include the following:

- If the non-FDR result seems to confirm a previous hypothesis or claim in the literature, it is perhaps less likely to be a "coincidence".
- If independent research, or independent methods or analysis, have picked out the region in question, it is perhaps likely to be a coincidence.
- If the same result is replicated across different sentences and with different sets of participants, it may be a real result.

Conversely, there are also a number of situations where even an FDR-corrected result should not necessarily be "believed" (meaning that it does not reflect a generalization about the population, beyond the dataset in question and how the test works on it).

- If a hot/cold spot is found in a very sparsely populated area, it should be treated with some skepticism. There may not in truth be enough datapoints in that area to be confident in the results, so one or two outliers could substantially skew the results, making it look like a signficant result when it is really just noise.
- If a sentence is extremely widely accepted or rejected, it is much more likely that genuine outliers will come out as significant. This is because the mean will be nearly at "ceiling" or "floor", and the standard deviation will be low. Therefore, any outliers in a particular region, even if they are genuinely noise in the data, will have the potential to make the overall population in that region significantly different from the standpoint of the test.

When a False Positive is suspected for these reasons, one might also consider the factors for False Negatives. Is there a reason to suspect this result, from previous research or from independent analyses? Is the result replicated with different sentences of the same type, with different participants? If the answer to these questions is "no", and one of the two above considerations apply, it would be wise to consider this to be very likely to be a False Positive.

To provide an example from one of the maps below, consider any sentence 1103 in the Personal Datives section (section 2.1). This sentence has a very low mean (1.67) with a median rating of 1 and standard deviation of .93. The hotspot region found at $p < .05$, basically encompassing Florida, doesn't correspond to any predictions or anything else known about the construction, and does not resemble the maps for the other Personal Dative sentences. There is a good chance that this is a False Positive.

1.5.8 A final word of caution

In the remainder of this work, we describe the sentences that were tested on the surveys, with some short discussions of why they were included and what results we have found. We provide some references to the syntax literature that motivated inclusion of the sentences (although we do not attempt to be exhaustive here), and also provide references to our own work when the data has been analyzed and/or mapped. We present basic maps of the sort described above and basic descriptive statistics related to other social categories.

However, a word of caution is in order on the discussions below. In many cases, we provide a qualitative, impressionistic summary of results that have not been analyzed in depth. These remarks are meant to guide the reader who is interested in exploring the data or the phenomenon, provide some context to serve as the backdrop for the results of future studies, and/or to explain why the database ended up being the way that it is. (For example, why certain sentences were pursued further on later surveys while others were not.) But these remarks should not necessarily be taken or interpreted as conclusive results. Any results from the analysis of our database are, or will be, written up as separate studies.

There may be places where we say that we find no regional pattern, but it turns out that there is one, or vice-versa. A great many constructions in this mapbook still require further study before anything conclusive can be said. For example, those maps do not

consider the possibility that regional patterns show complexity within hot and cold spots (as demonstrated for the *be done my homework* construction in Wood 2019b) or that averaging across different sentences may yield significant results that the individual sentences do not show (as demonstrated for the *have yet to* construction in Wood 2019b). This mapbook also does not consider more complex interactions with other social categories such as age, race, gender, income, urbanity/ruralness, etc., which we know to exist for many of these constructions. (That is, age could be relevant in one region but not another.) Those will have to be the subject of separate individual studies, some of which are, in fact, in the works.

1.6 Understanding the graphs

While the maps in this work show geographic distributions of participants' judgments of sentences, the graphs are intended to summarize how these judgments relate to demographic information. All graphs were created using the R package `ggplot2`(Wickham 2016) and the `tidyverse`(Wickham et al. 2019).

1.6.1 Types of graphs

- **The histogram** in the top left corner of each graph array shows the overall distribution of judgments for that sentence. The x axis represents the judgment, on a scale of 1–5. The y axis represents the raw number of participants. The y axis on these plots varies between sentences, since different sentences were judged by different numbers of participants. Bars are colored (somewhat redundantly) according to the x axis, where the darkest color is the highest rating (acceptance). These colors are consistent with those shown on the map and in the other graphs.

- **The age scatter plot** shows the relationship between participants' ages in years (on the x axis) and judgments of the sentence (on the y axis). Each point represents one participant. Points are transparent, such that areas with a higher concentration of points show up as darker. A small amount of noise has been added to the points along the y axis, purely to increase visiblity–in reality, participants' ratings were integers between 1 and 5. Points are overlaid with a linear regression line. The gray region around the regression line represents standard error. We had very few participants over the age of 71, so we have excluded these participants from the scatterplot to prevent their exerting undue influence on the slope of the regression line.

- **Stacked bar plots** show the proportional breakdown of judgments (y axis) according to any of several categorical demographic variables (x axis). Bars sum to 100%. Sample sizes are unequal between categories, and are indicated in parentheses in the catgory labels along the x axis (e.g. "(n = 100)").

- **Dotplots** show the mean judgment and a 95% bootstrap confidence interval for participants in each category. Bootstrap confidence intervals were generated using the R package 'boot'. Sample sizes have been omitted from the x axis labels of the dotplots due to space limitations, but are included along the x axis of the corresponding stacked bar plot.

1.6.2 Graph labels

- **Age groups** divide participants' ages in years into bins. Bins represent approximately ten-year increments, with the exception of the '18-30' bin and the '61+' bin. Ages above 61 were combined into a single '61+' category due to small sample sizes at older ages.

- **Gender categories** are shown as "Female", "Male", and "Other". Different surveys gave different checkbox options for gender, with some offering only those three categories and others providing options for "Transgender (MTF)" and "Transgender (FTM)". All surveys additionally provided an option for participants to self-identify their gender. Any participants who wrote in a nonbinary gender self-identification, or who selected the "Other" option, are grouped under "Other". We grouped participants who identified as "Transgender (MTF)" with those identifying as "Female", and those identifying as "Transgender (FTM)" with those identifying as "Male". This choice reflects our assumption that since gender is a social construct, a person's gender identity is more likely to be reflected in their linguistic behavior than the gender they were assigned at birth. The number of participants identifying as transgender or nonbinary was not high enough to permit independent statistical analysis, nor did grouping MTF and FTM with Female and Male, respectively, noticeably change any of the patterns we observed.

- **Race categories** are abbreviated in the graph labels for display purposes, and are shown in alphabetical order. "AI/AN" is the standard abbreviation for "American Indian/Alaska Native", which was presented on the surveys as "Native American/Amerindian". "Black" was presented on surveys as "Black/African American". "His/Lat" was presented on surveys as "Hispanic/Latino/Latina". "White" was presented on surveys as "White/Caucasian". "Other" combines racial categories that had fewer than ten participants for the sentence in question (e.g. "Pacific Islander", which accounted for only five participants across all the surveys) with participants who self-identified their race as "Other" or who selected multiple options.

- **Education levels** represent the highest level of education that the participant has completed. "High school" accounts for participants who selected either "Some high school" or "High school diploma". "Some coll." accounts for participants who have completed some college but have not received a college degree. The "Graduate" did not distinguish between different types of graduate degrees.

- **Urban area classifications** are characteristics of 2010 census blocks, which vary greatly in size. A "Rural" census block is one with a population under 15,000 people; an "Urban Cluster" is an area with a population between 15,000 and 50,000 people, and an "Urban" area is an area with a population greater than 50,000 people.[19] A participant's urban area classification characterizes the location of their primary childhood residence, as described in 1.5.1.

[19] This was done with the GIS shape file available at https://tinyurl.com/yb3sdszr. For more information, see https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html and section 3.2.2 of https://tinyurl.com/yddb5pn6.

2 Dative Constructions

Due to the focused nature of our NSF grant described above, a large part of our database consists of various dative contructions. This is the richest empirical area of our data, and it is also the area we have explored the most as of now (Wood et al. 2015b, 2020; Wood and Zanuttini 2018). There is still, however, much to learn about these constructions and we expect them to continue to play a major role in our theoretical and dialectological work for some time to come.

2.1 Personal Datives

Personal datives are characterized by having a dative (indirect object) pronoun that is coreferent with the subject, but does not bear reflexive *-self* morphology. Personal datives were included on surveys 6, 6B, and 9. The following sentences were tested.

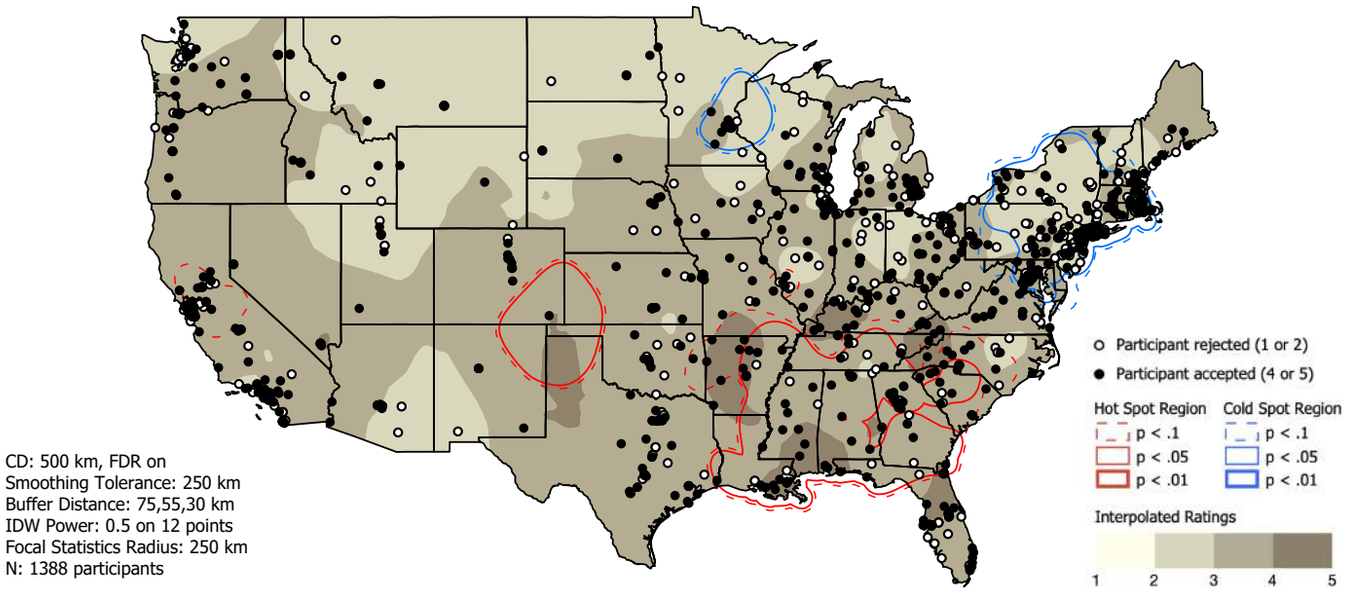
(4)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1095	I need me some black jeans.	1388	3.29	1.34	6, 6b
F1096	She has her a new boyfriend.	1388	2.97	1.33	6, 6b
F1097	He needs him that big truck over there.	1388	2.34	1.25	6, 6b
F1103	He wants him chocolate.	1389	1.67	0.94	6, 6b
F1176	He has him a new car.	807	2.40	1.23	9
F1177	I have me a new car.	807	2.88	1.28	9
F1179	I'm gonna go and play with me a cat.	911	1.87	1.06	6b
F1180	I'd put me a marble or two in my pocket.	911	2.70	1.33	6b

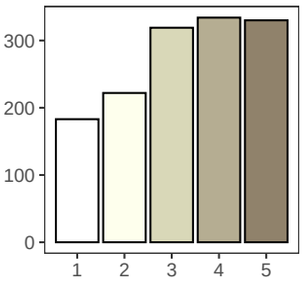
Initial investigations showed an age effect, where the Southern distribution was stronger in the older age groups, mainly due to lack of rejection in the South more than lack of acceptance elsewhere. The strength of this effect has varied depending on which sentences and surveys we have looked at, but seems to be fairly consistent. We frequently find Hot Spots in the South, although this is not as strong or robust as other Southern dative constructions, apparently due to the fact that it has spread or is well-known outside the region.

The more marked sentences in 1179 and 1180 may be an exception; they have a stronger Southern distribution. 1179 was especially marked, and the difference between the South and the rest of the country is clearer in that it is almost universally rejected outside of the South, but accepted by some within the South. 1103 was widely rejected, supporting the claim in the literature that a determiner is necessary in this construction. Some younger speakers did accept it, but it is not clear if this is a real pattern or noise. 1097, however, was marked, but fairly widely accepted, which does not support the claim in the literature that the determiner has to be indefinite.

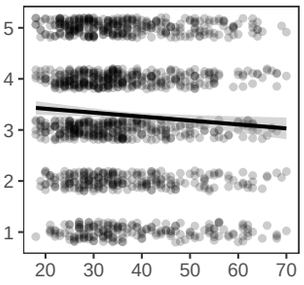
F1095: "I need me some black jeans."



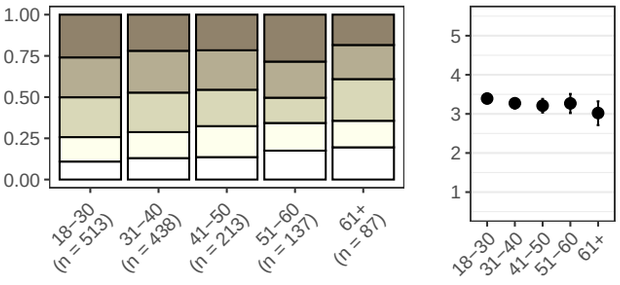
Judgments



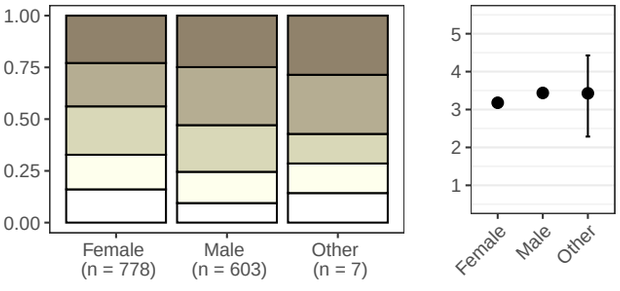
Age



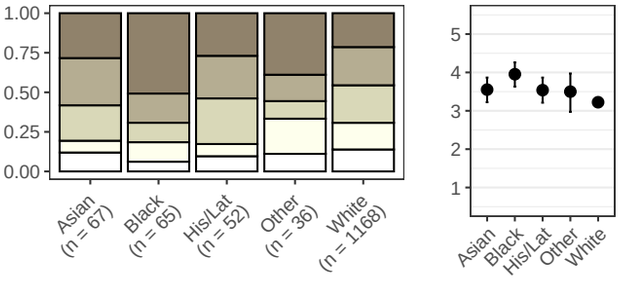
Age groups



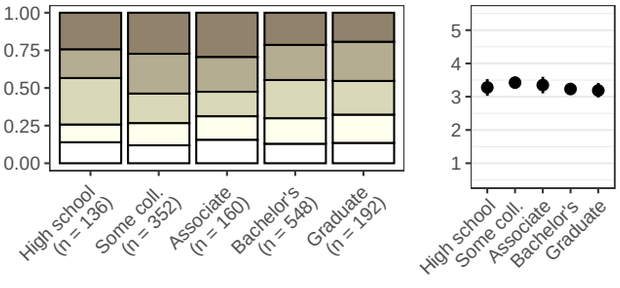
Gender



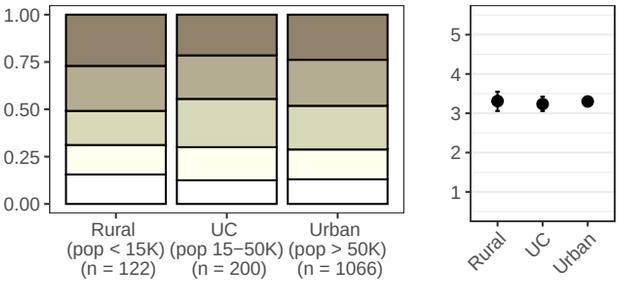
Race



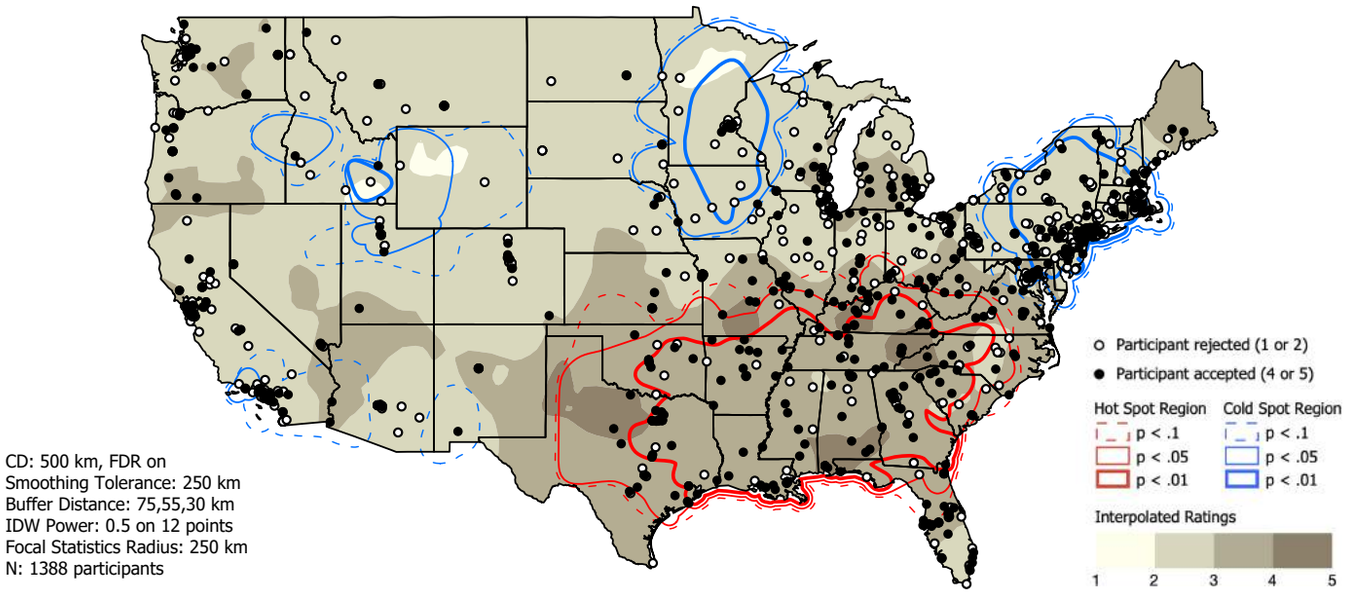
Education



Urban/Rural

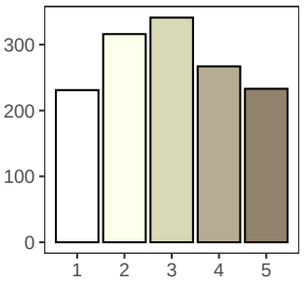


F1096: "She has her a new boyfriend."

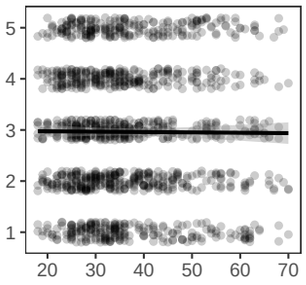


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N: 1388 participants

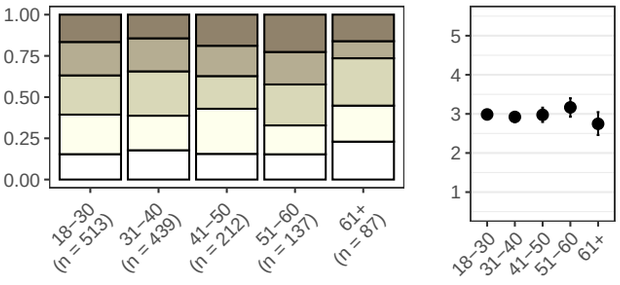
Judgments



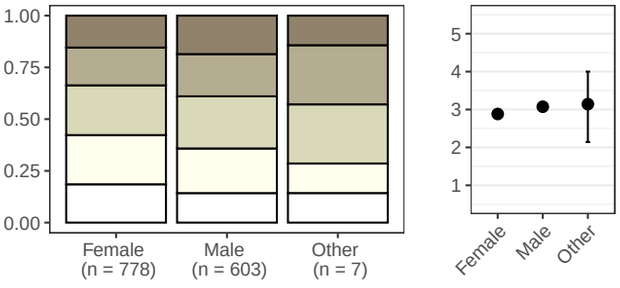
Age



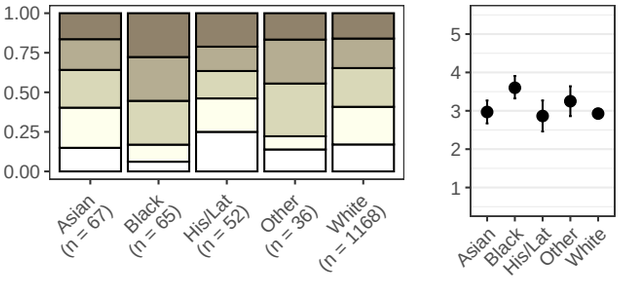
Age groups



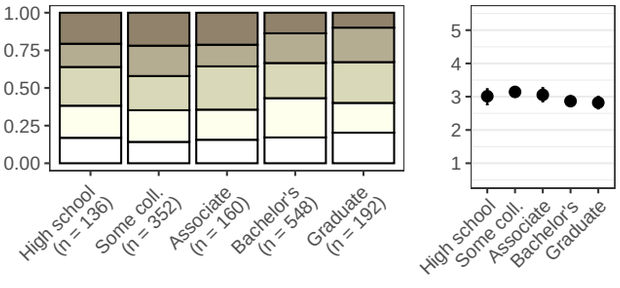
Gender



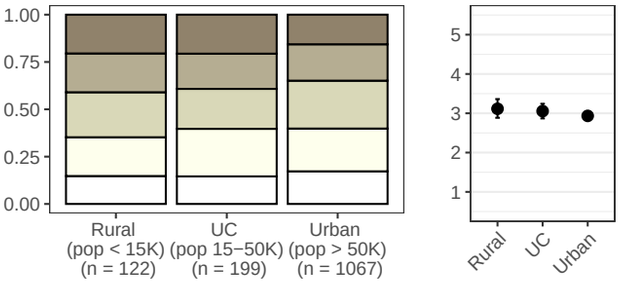
Race



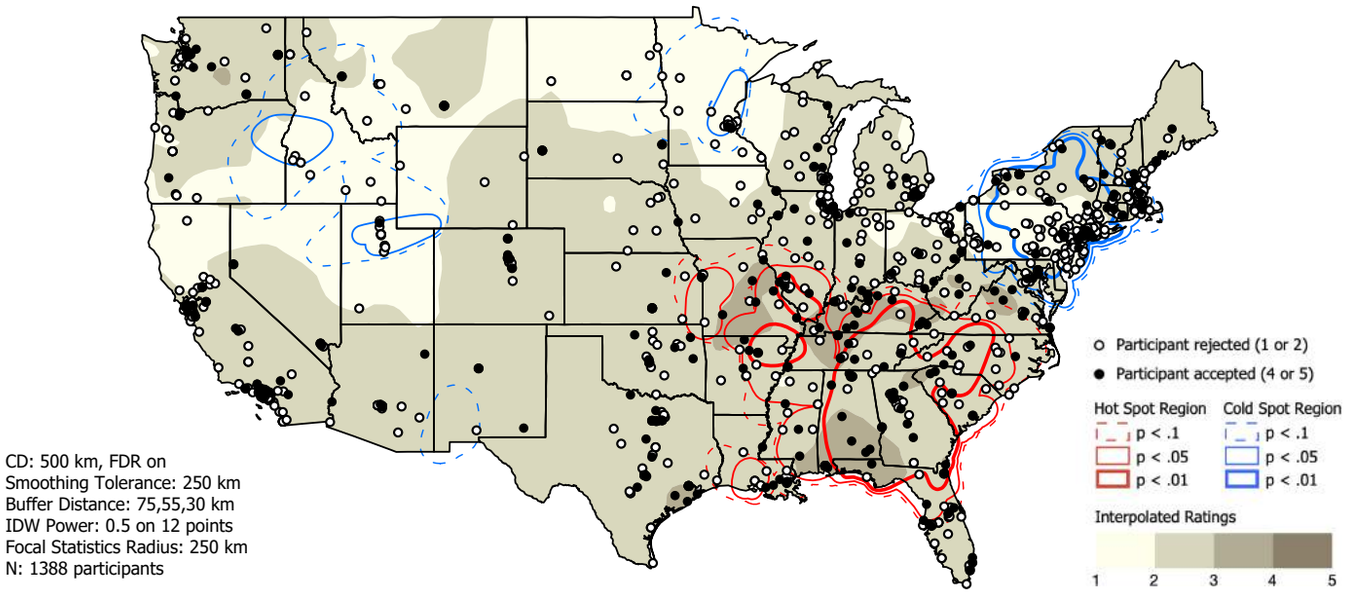
Education



Urban/Rural

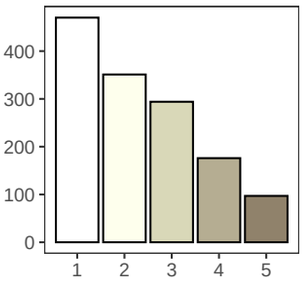


F1097: "He needs him that big truck over there."

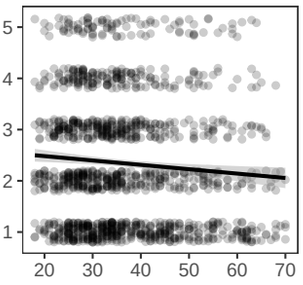


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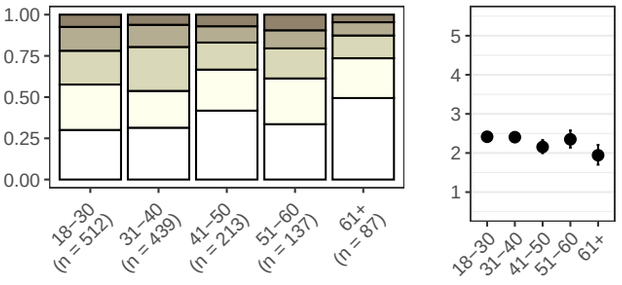
Judgments



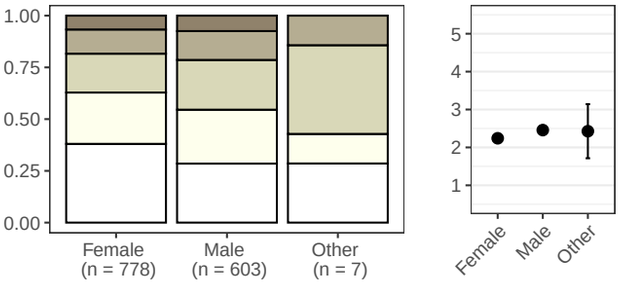
Age



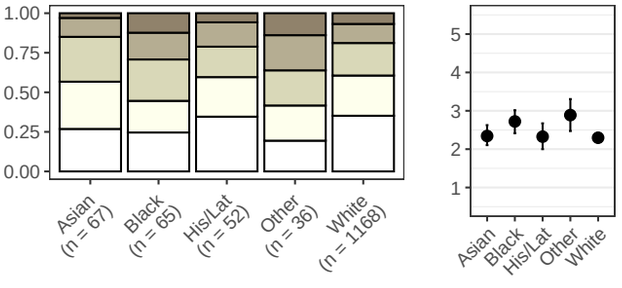
Age groups



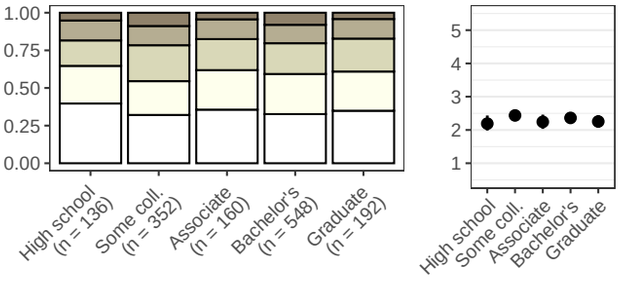
Gender



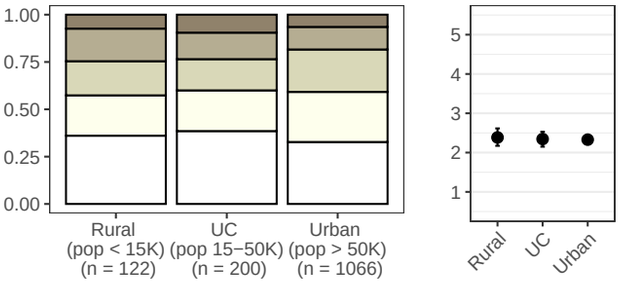
Race



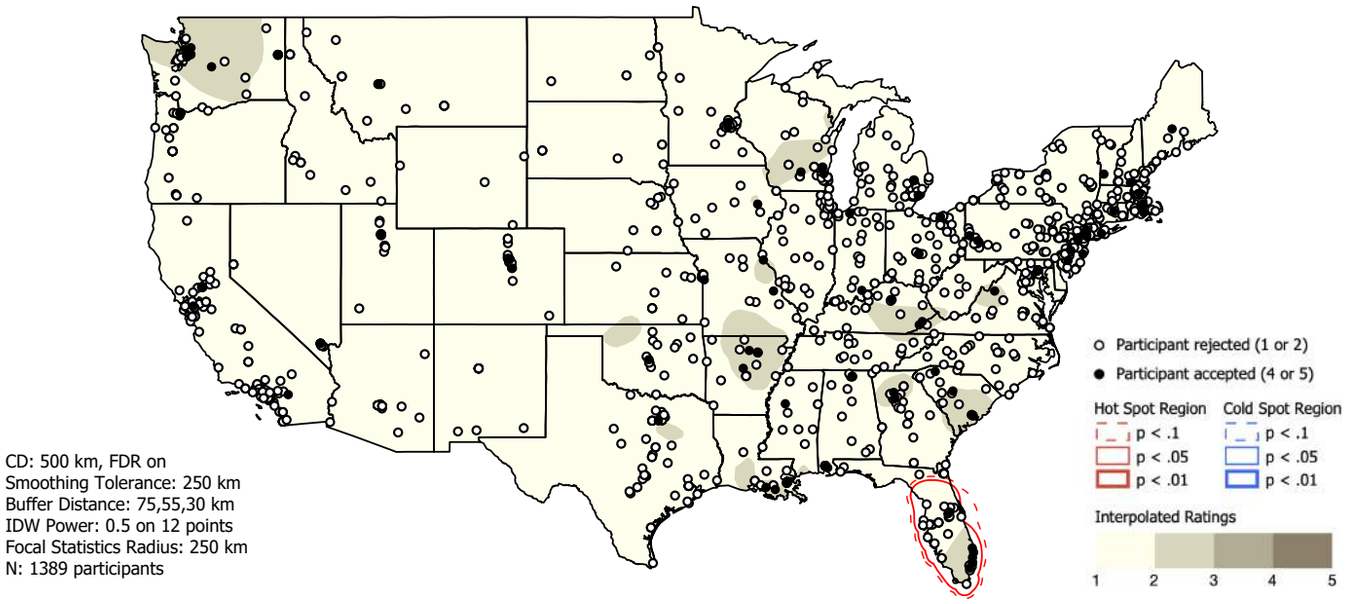
Education



Urban/Rural

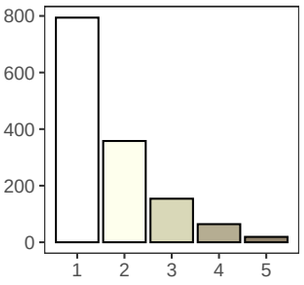


F1103: "He wants him chocolate."

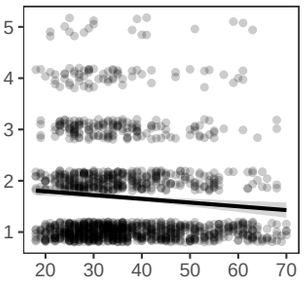


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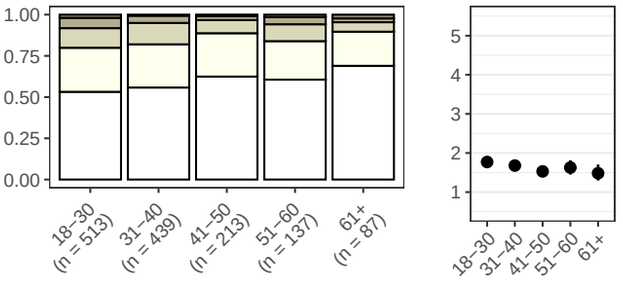
Judgments



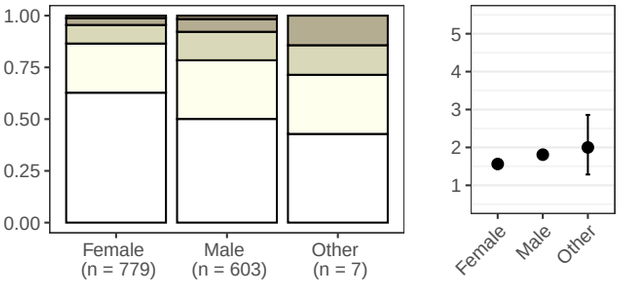
Age



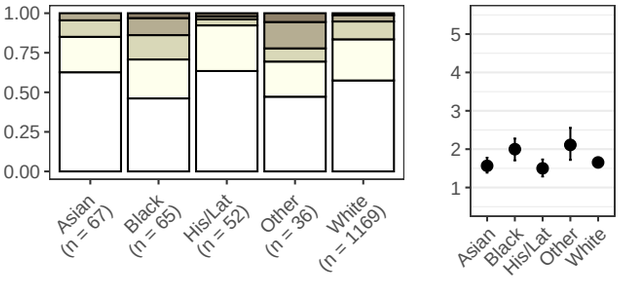
Age groups



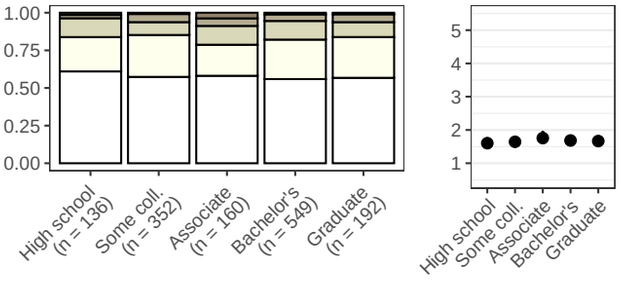
Gender



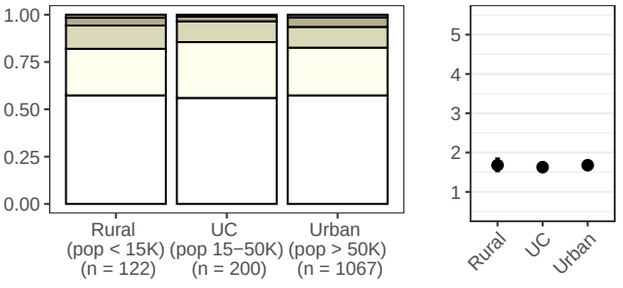
Race



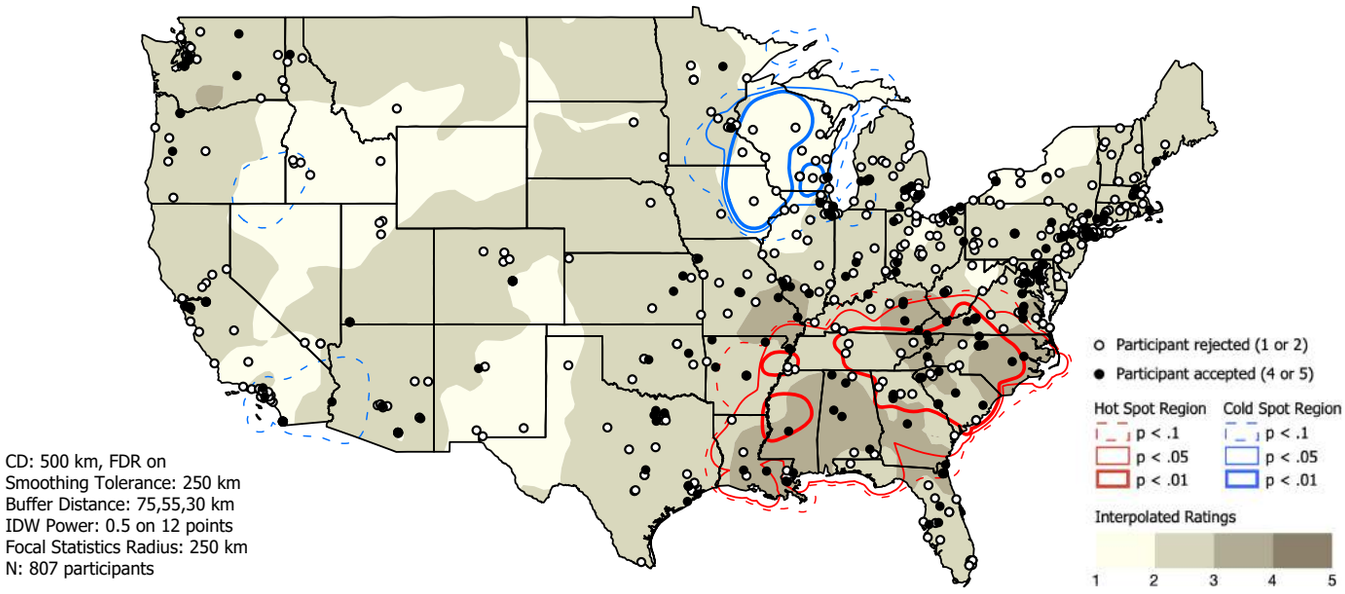
Education



Urban/Rural

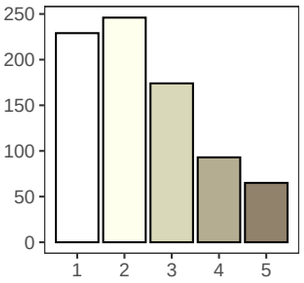


F1176: "He has him a new car."

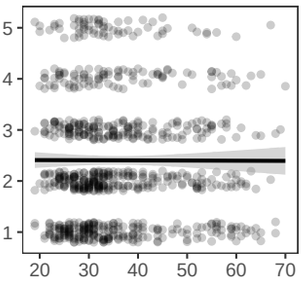


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Focal Statistics Radius: 250 km
N: 807 participants

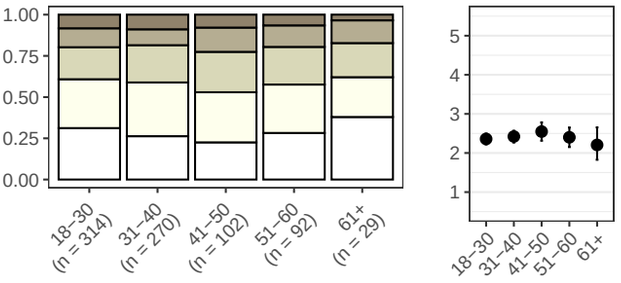
Judgments



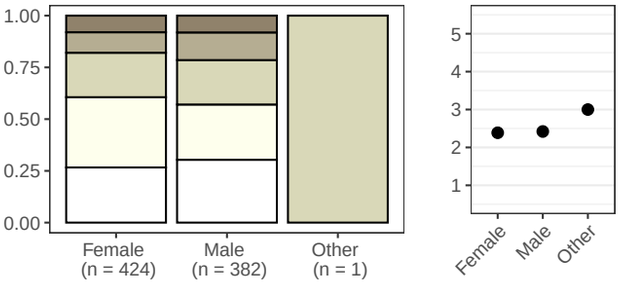
Age



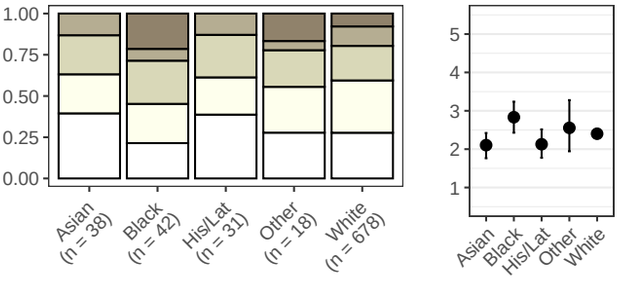
Age groups



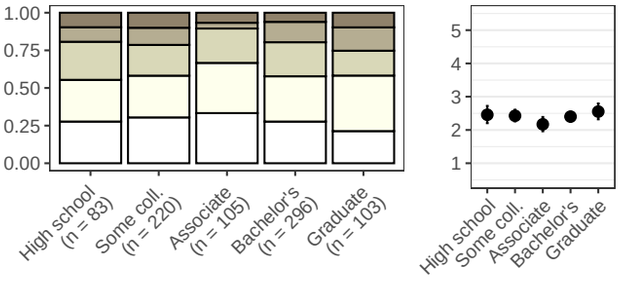
Gender



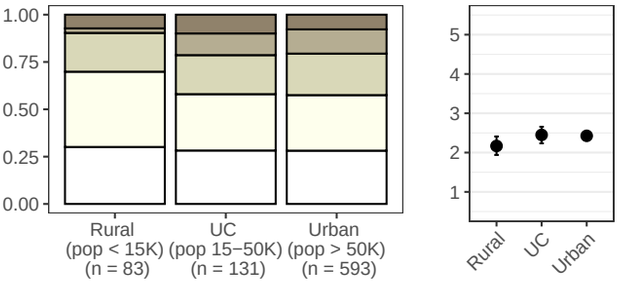
Race



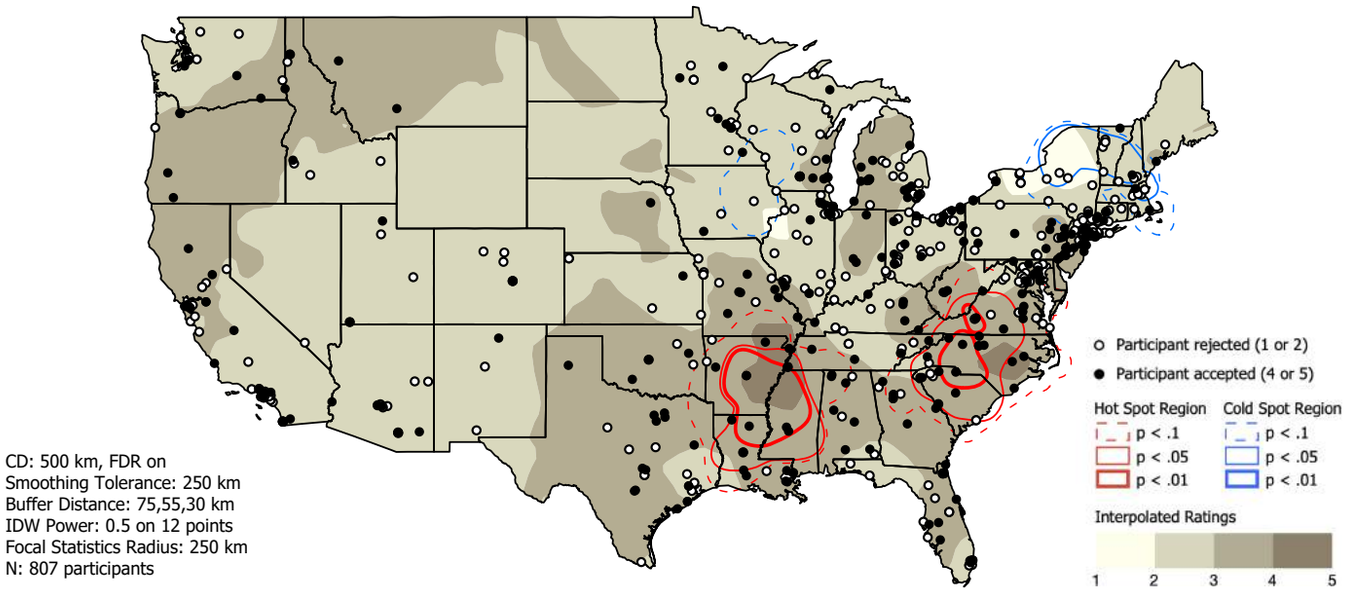
Education



Urban/Rural

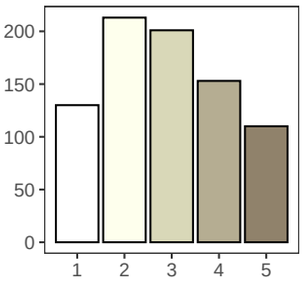


F1177: "I have me a new car."

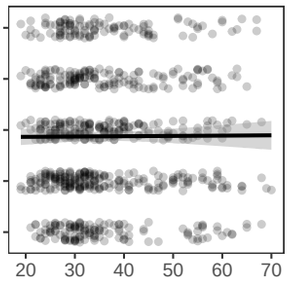


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

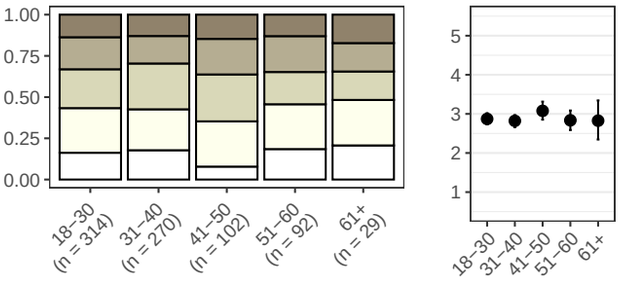
Judgments



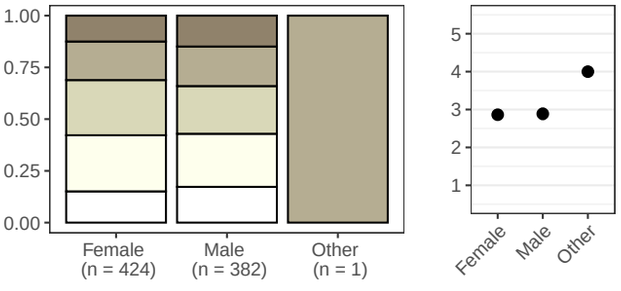
Age



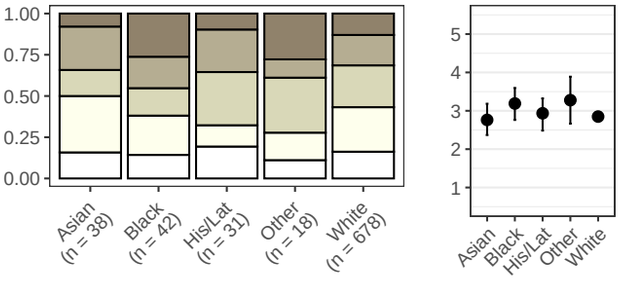
Age groups



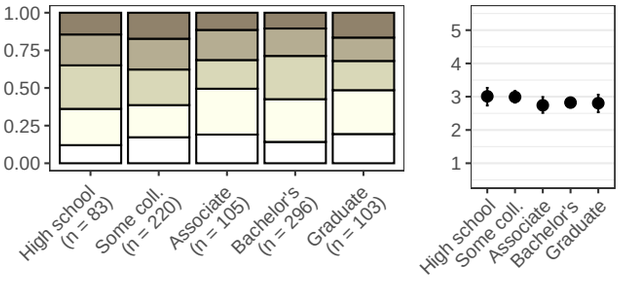
Gender



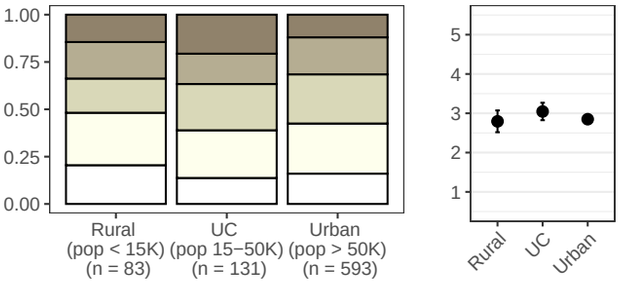
Race



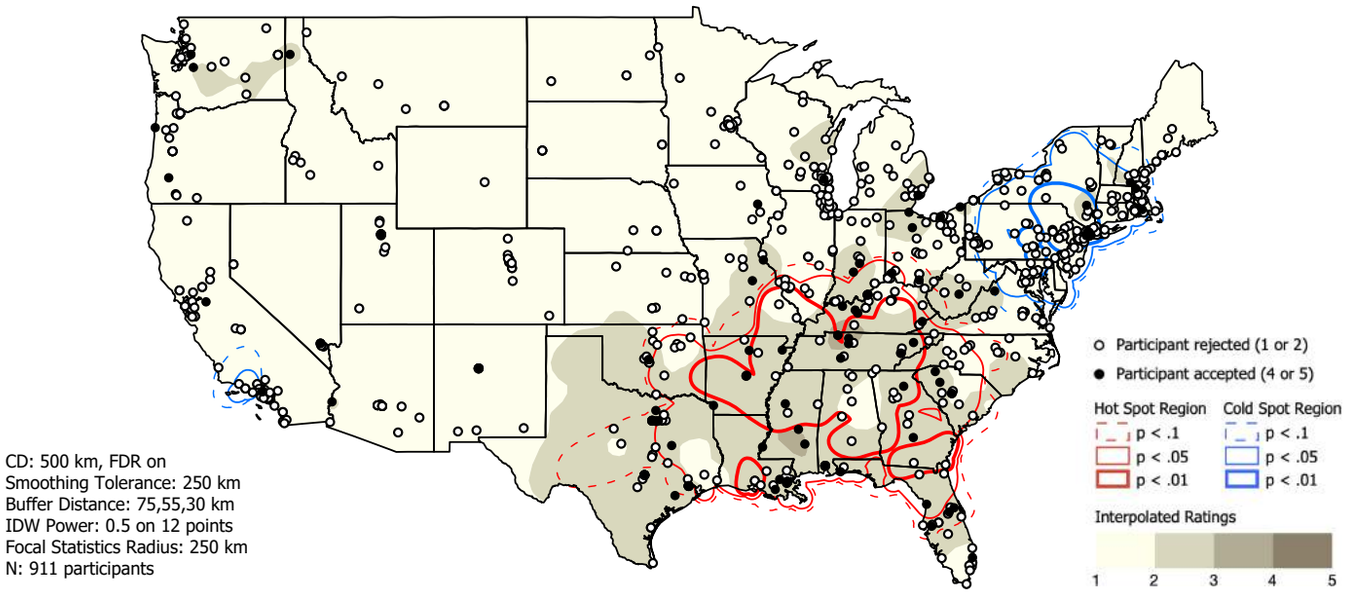
Education



Urban/Rural

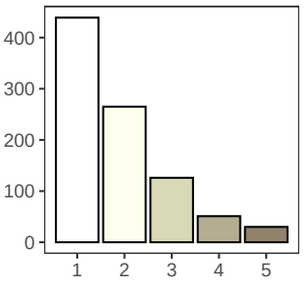


F1179: "I'm gonna go play with me a cat."

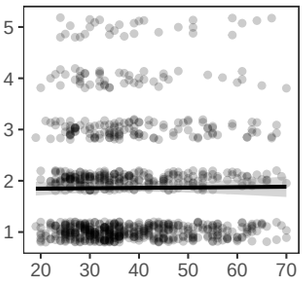


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 911 participants

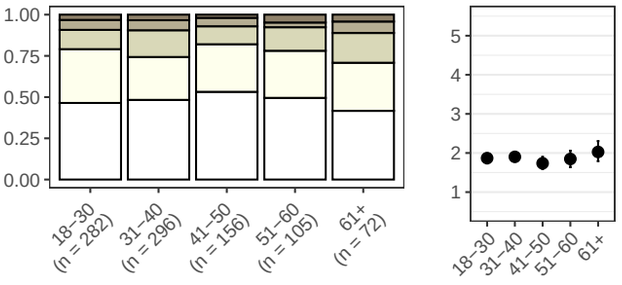
Judgments



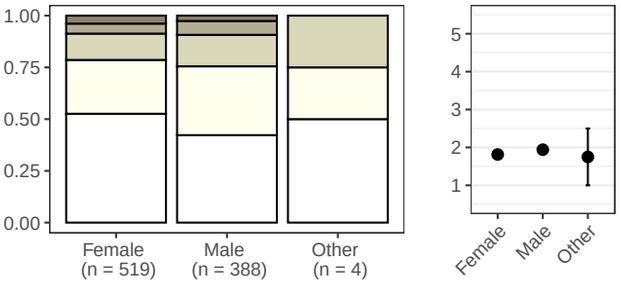
Age



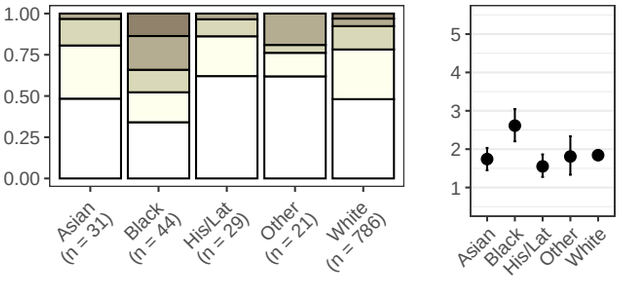
Age groups



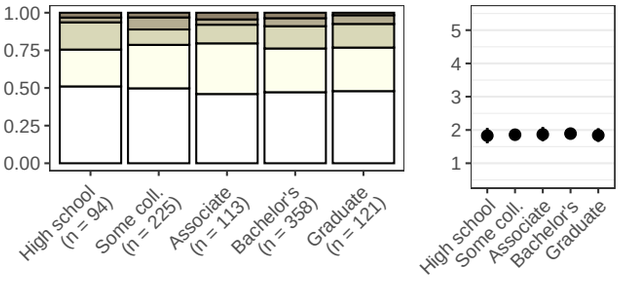
Gender



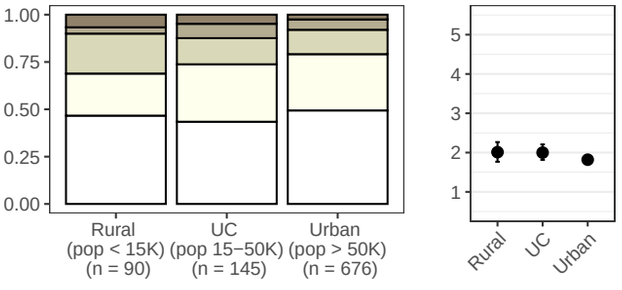
Race



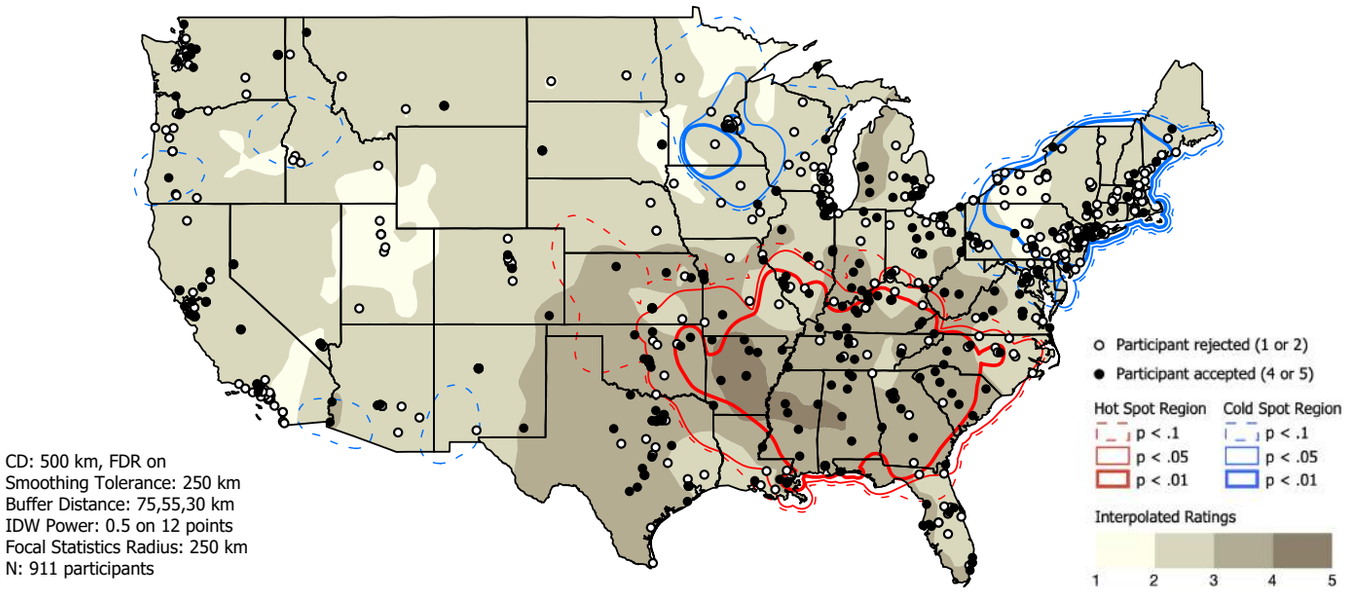
Education



Urban/Rural

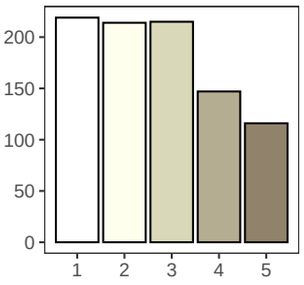


F1180: "I'd put me a marble or two in my pocket."

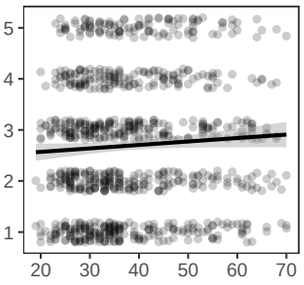


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 911 participants

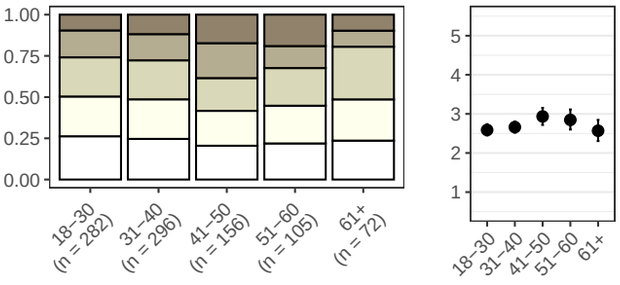
Judgments



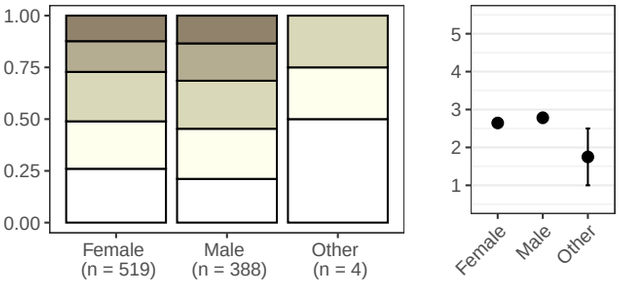
Age



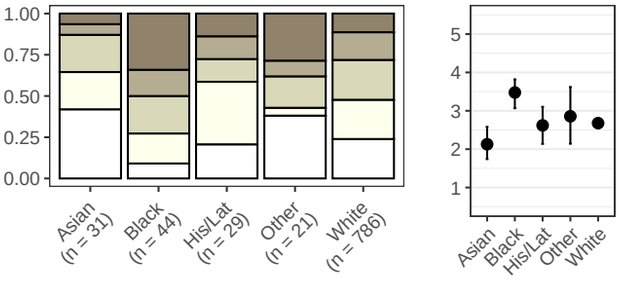
Age groups



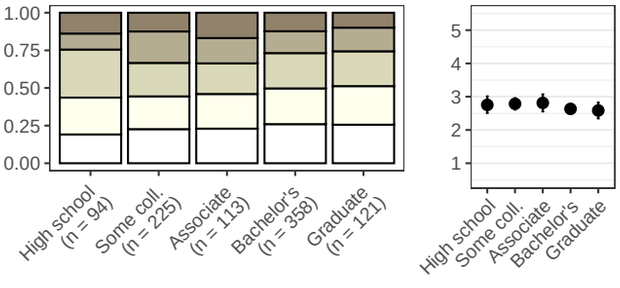
Gender



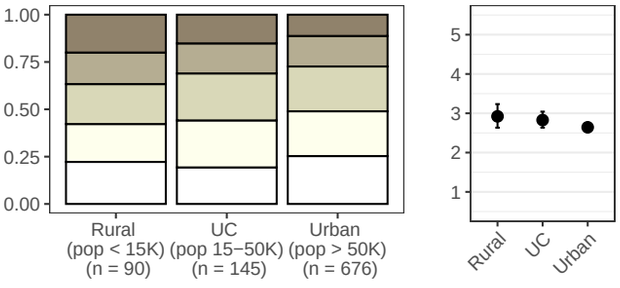
Race



Education



Urban/Rural



2.2 Dative Presentatives

We will not go into detail about the results for dative presentatives, since this topic specifically is the focus of a number of our talks and publications (Wood et al. 2015b, 2020; Wood and Zanuttini 2018), and is also often discussed in papers that have a more general focus (Zanuttini et al. 2018; Wood 2019b). However, I will note that prior to this work, we had not made comprehensive maps taking all this data into accout, but had rather published the results in parts, as the data came in.

(5)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1002	Here's you a piece of pizza.	2452	2.34	1.39	5, 5b, 6, 6b
F1070	Here's me a good pair of jeans!	1063	2.34	1.35	5, 5b
F1070.1	Here's me a good pair of jeans.	539	2.19	1.28	8
F1071	Here's us a gas station – pull over!	1602	2.31	1.31	5, 5b, 8
F1098	Here's him a nice cup of coffee.	1389	2.03	1.26	6, 6b
F1099	Here's John a glass of iced-tea.	1389	2.20	1.41	6, 6b
F1116	Here's you some money.	1110	2.31	1.36	7, 9
F1119	Here is you a new bunny.	1109	1.92	1.19	7, 9
F1120	Here is you some camping ideas.	1110	1.79	1.09	7, 9
F1121	Here comes you a bus.	1110	1.78	1.05	7, 9
F1122	Here's you some fun ideas.	1110	2.13	1.31	7, 9
F1118.1	Here are you some books.	607	2.07	1.30	9
F1118	Here are you a few tips to avoid these problems.	303	2.26	1.49	7

(6)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1117	There's you a piece of pizza.	1110	2.16	1.32	7, 9
F1123	Now there's me a new Easter dress.	1110	2.09	1.27	7, 9
F1124	Now there's us a story.	1110	2.14	1.27	7, 9
F1125	Now there's us some easy money.	1110	2.48	1.37	7, 9

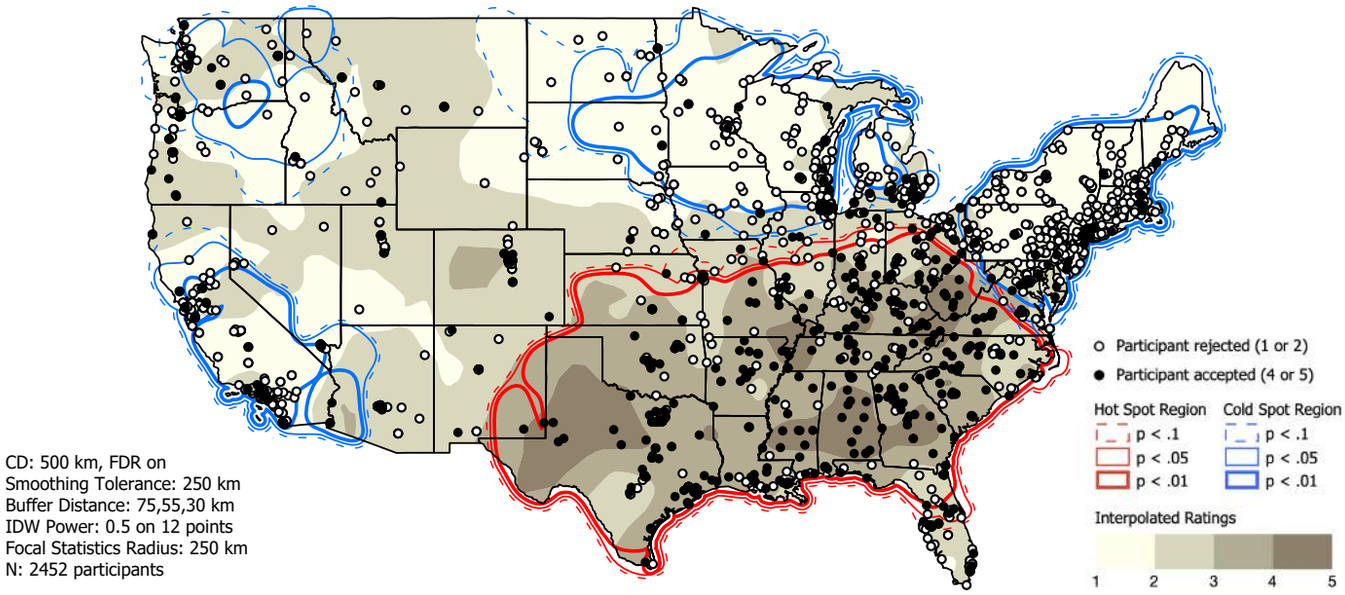
(7)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1007	Where's us some ripe blueberries?	1602	2.20	1.27	5, 5b, 8
F1009	Where are me some country boys?!	1602	2.35	1.31	5, 5b, 8
F1067	Where's me a screwdriver?	1602	2.15	1.28	5, 5b, 8
F1068	Where's you a quiet place to study?	364	1.88	1.12	5
F1068.1	Okay, now where's you a pillowcase?	698	2.32	1.40	5b
F1069	Where's us a good place to eat around here?	1062	2.31	1.33	5, 5b

I will make just a few remarks on the sentences in (5)–(7). Firstly, the maps below show that 1068.1 is much more consistently accepted in the South than the original *where's you* sentence 1068, published in Wood et al. (2015b). (This is briefly mentioned on the YGDP website page for Dative Presentatives.) The sentence 1068.1 was suggested by Goldie Ann McQuaid (p.c.), who said that it would be acceptable in a context where the speaker is looking for a pillow case for a guest who is spending the night. The sentence seems to bring out this context without it having to be explicitly stated. This observation fits with the general observation that the *where's* sentences are not generally true "information questions", but instead uttered while a speaker is already looking for something.

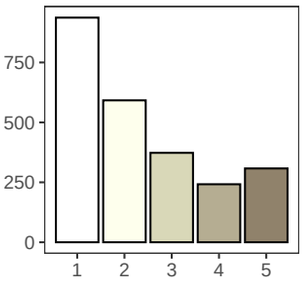
Secondly, 1118 and 1118.1 are numbered as variants of each other because both were testing *here are you…*, that is, plural agreement past a 2nd person pronoun. 1118 was originally adapted more or less directly from an attested example online, but after survey 7, it was deemed to be needlessly complex for what we were testing, introducing confounds that made the interpretation of the resulting data more difficult. It was thus replaced by 1118.1. Thirdly, 1070 and 1070.1 are distinguished only by punctuation, and should arguably be combined in future versions of the database.

F1002: "Here's you a piece of pizza."

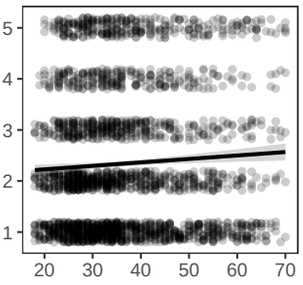


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 2452 participants

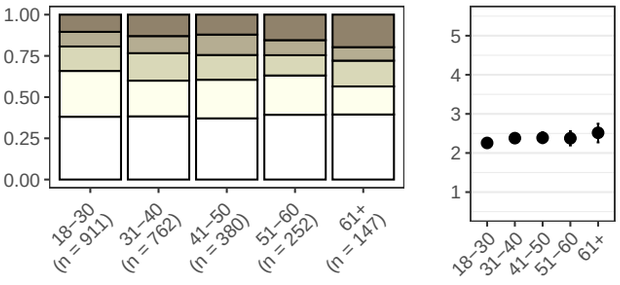
Judgments



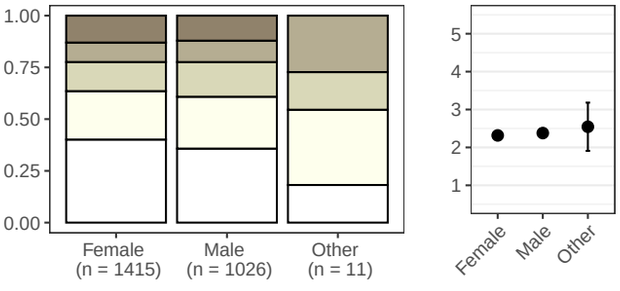
Age



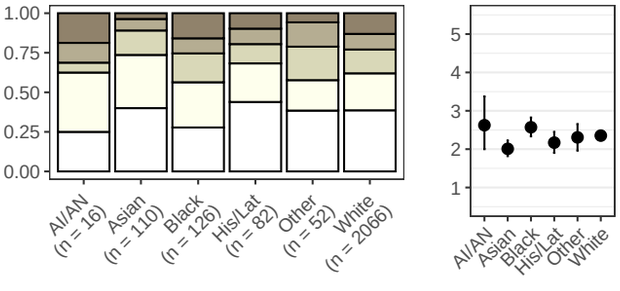
Age groups



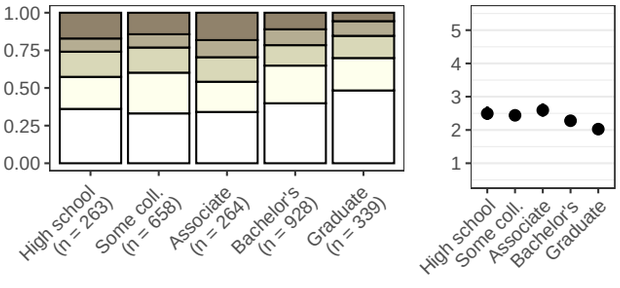
Gender



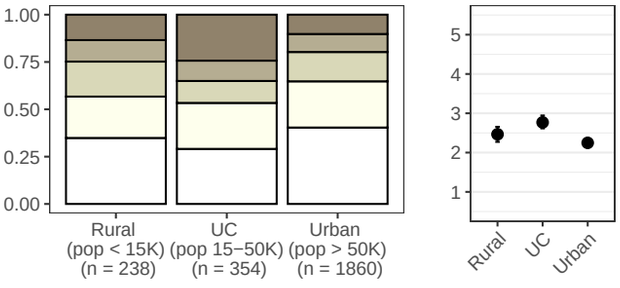
Race



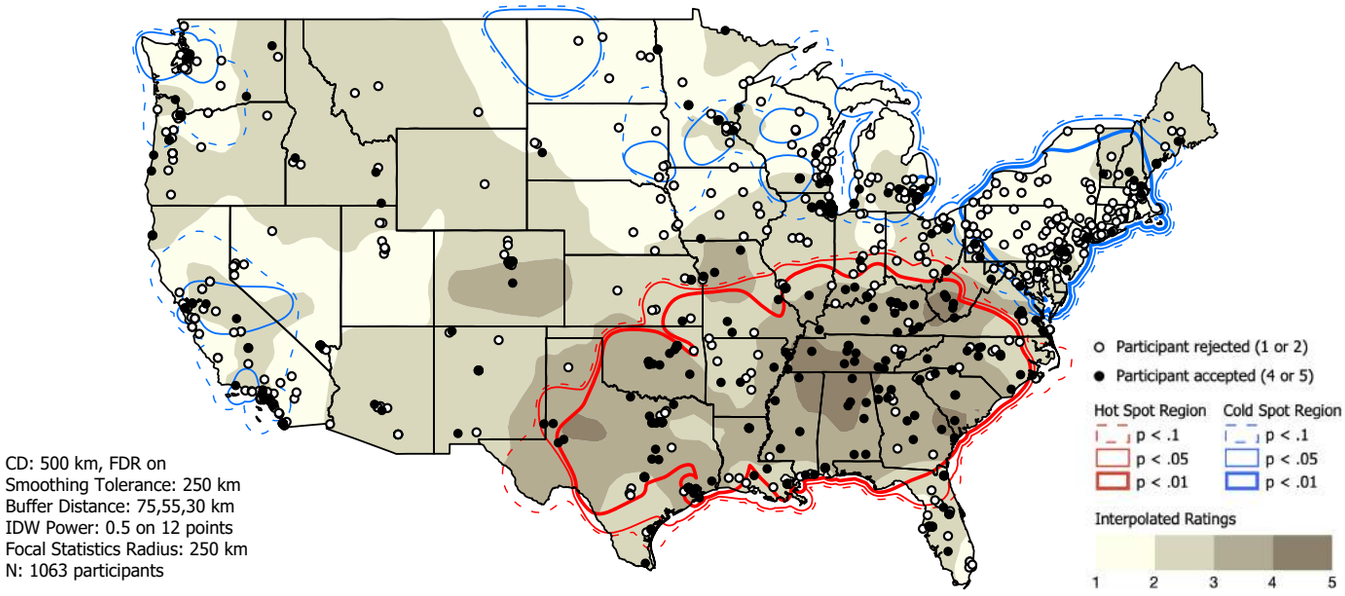
Education



Urban/Rural

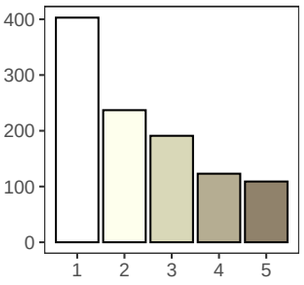


F1070: "Here's me a good pair of jeans!"

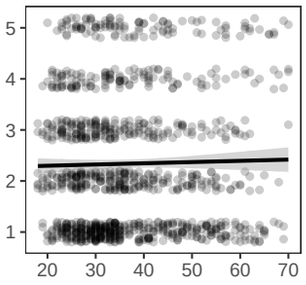


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

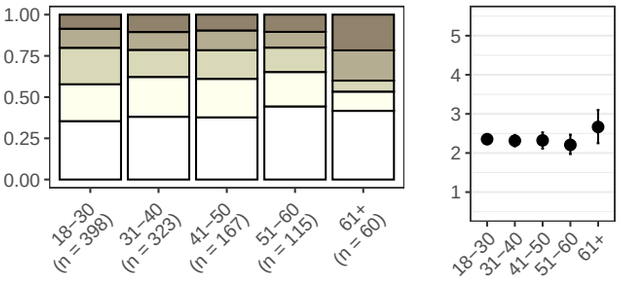
Judgments



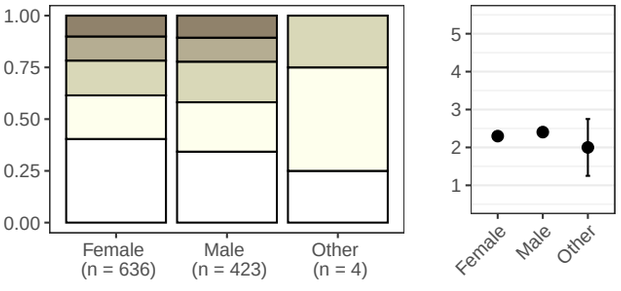
Age



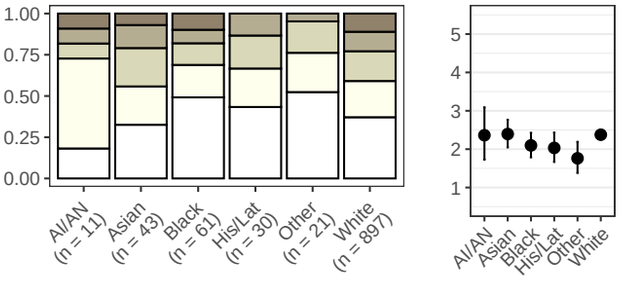
Age groups



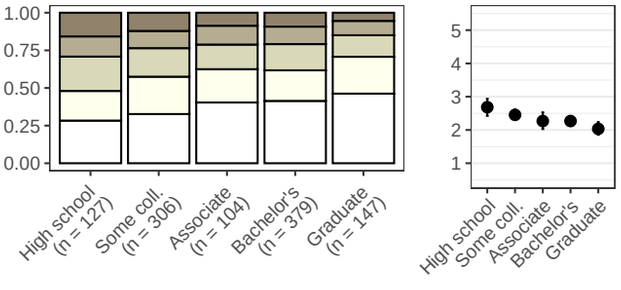
Gender



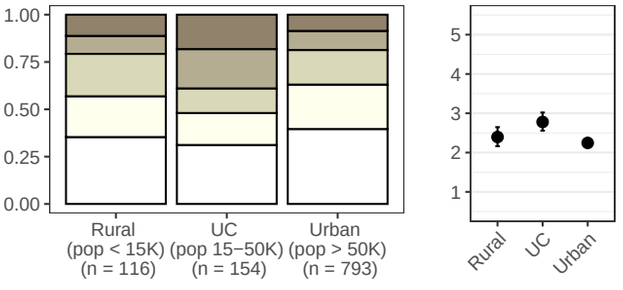
Race



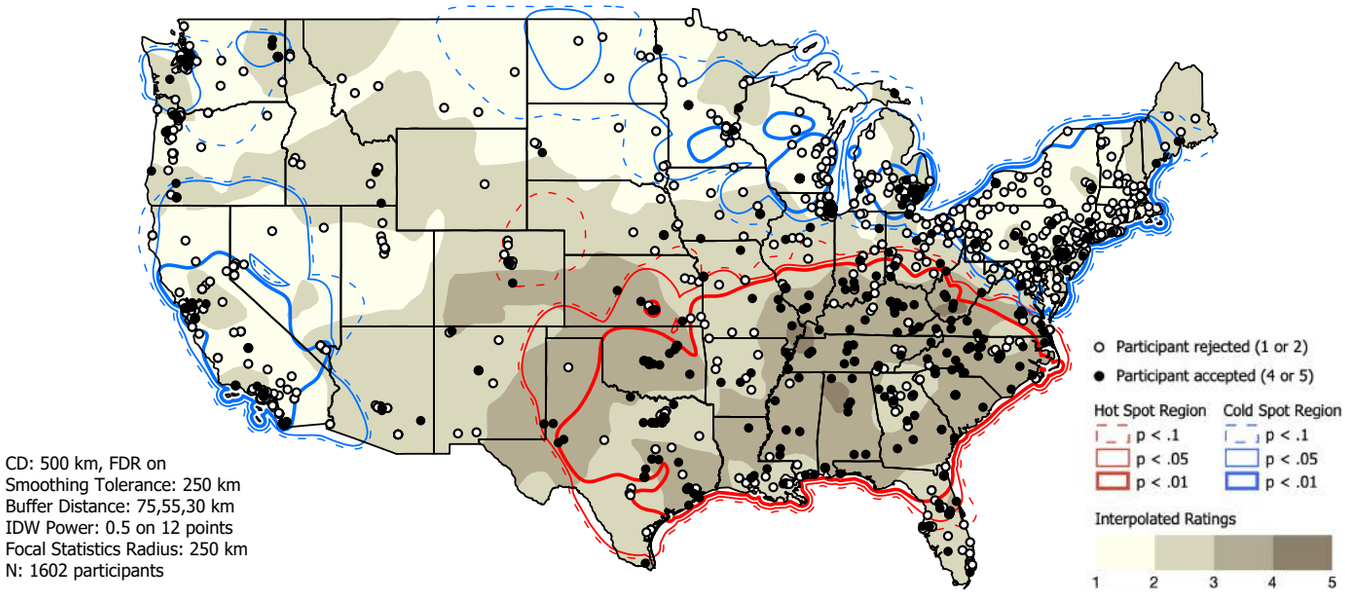
Education



Urban/Rural

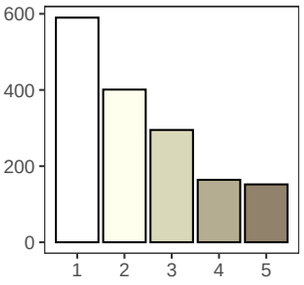


F1071: "Here's us a gas station—pull over!"

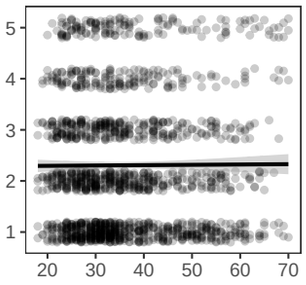


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

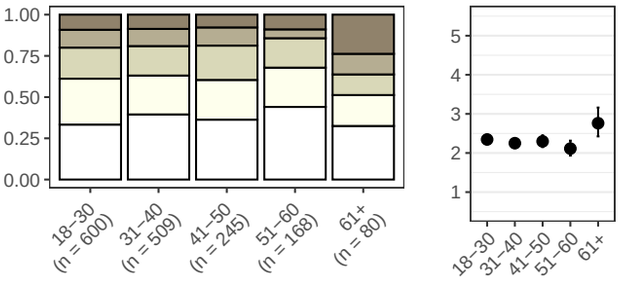
Judgments



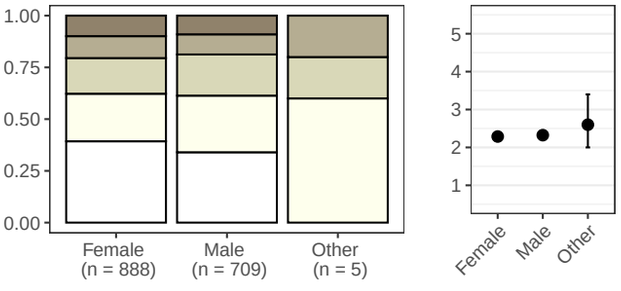
Age



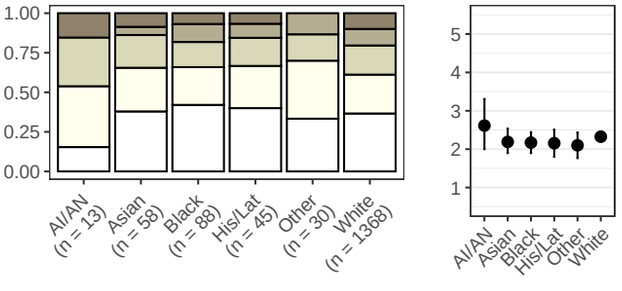
Age groups



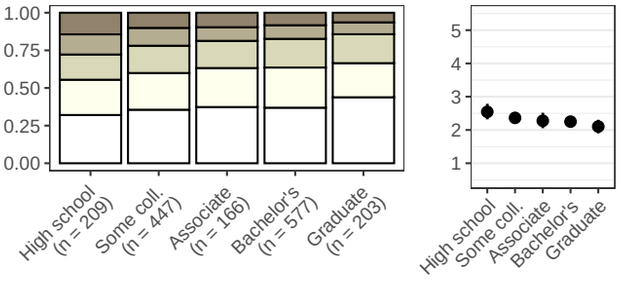
Gender



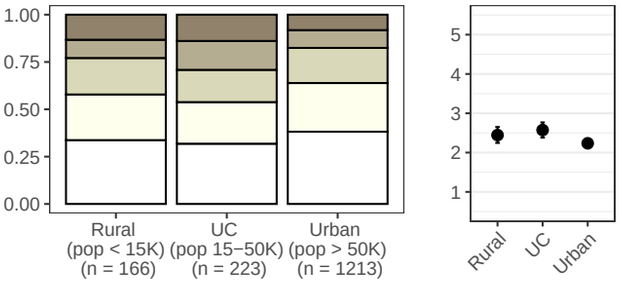
Race



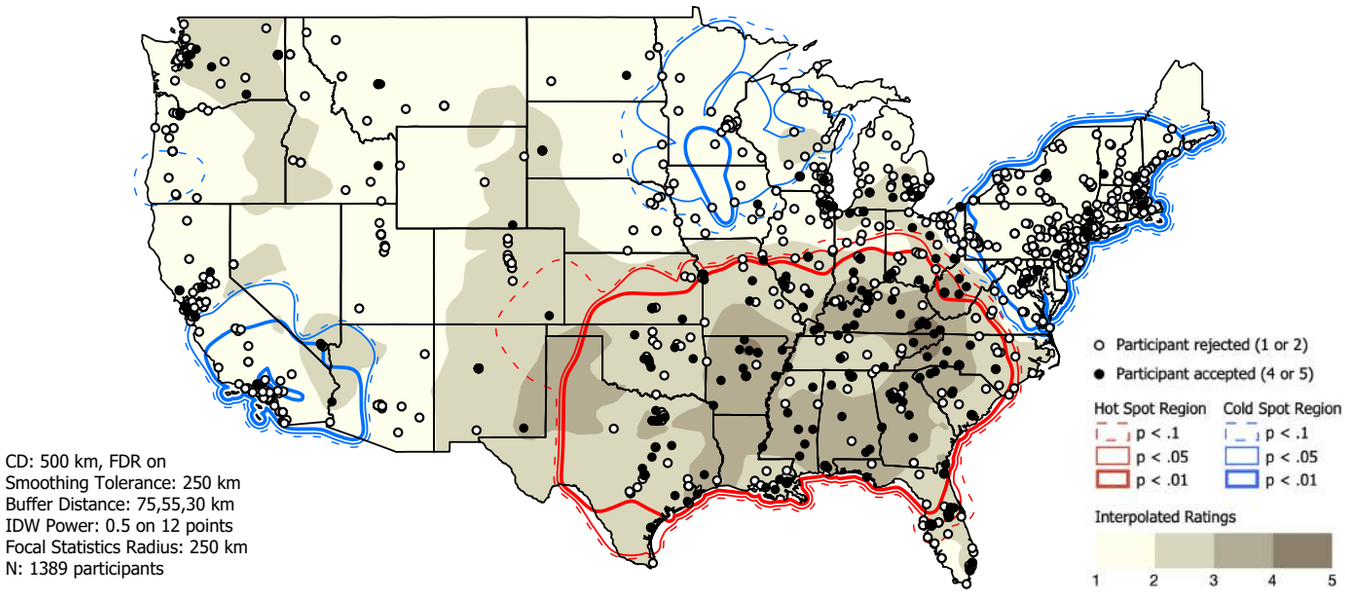
Education



Urban/Rural

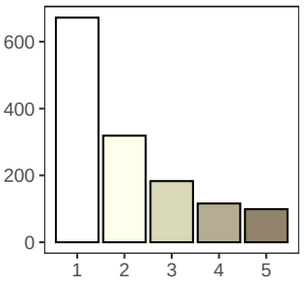


F1098: "Here's him a nice cup of coffee."

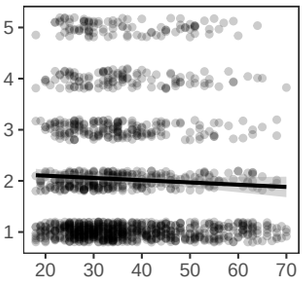


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

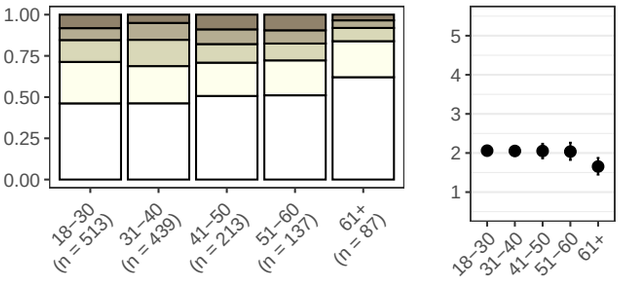
Judgments



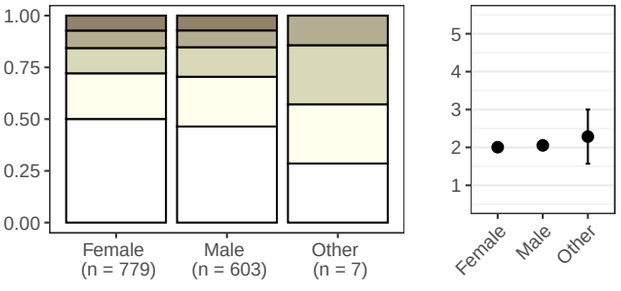
Age



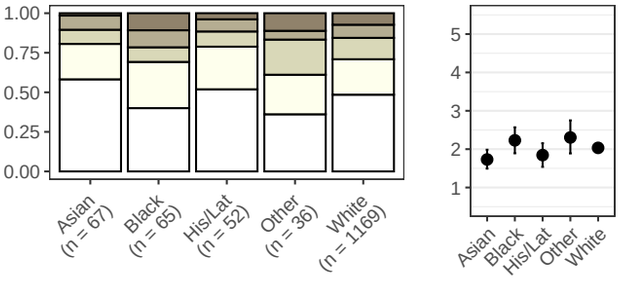
Age groups



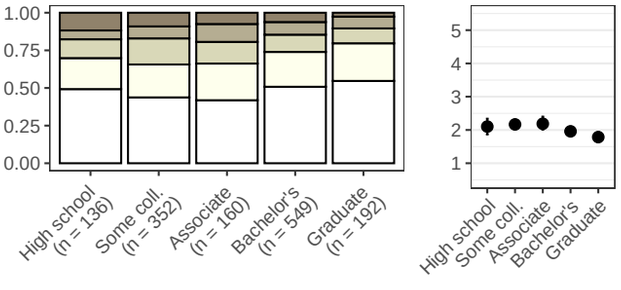
Gender



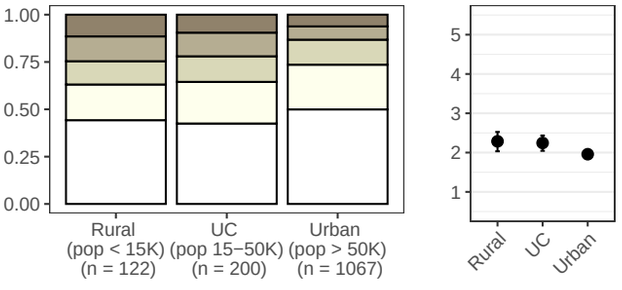
Race



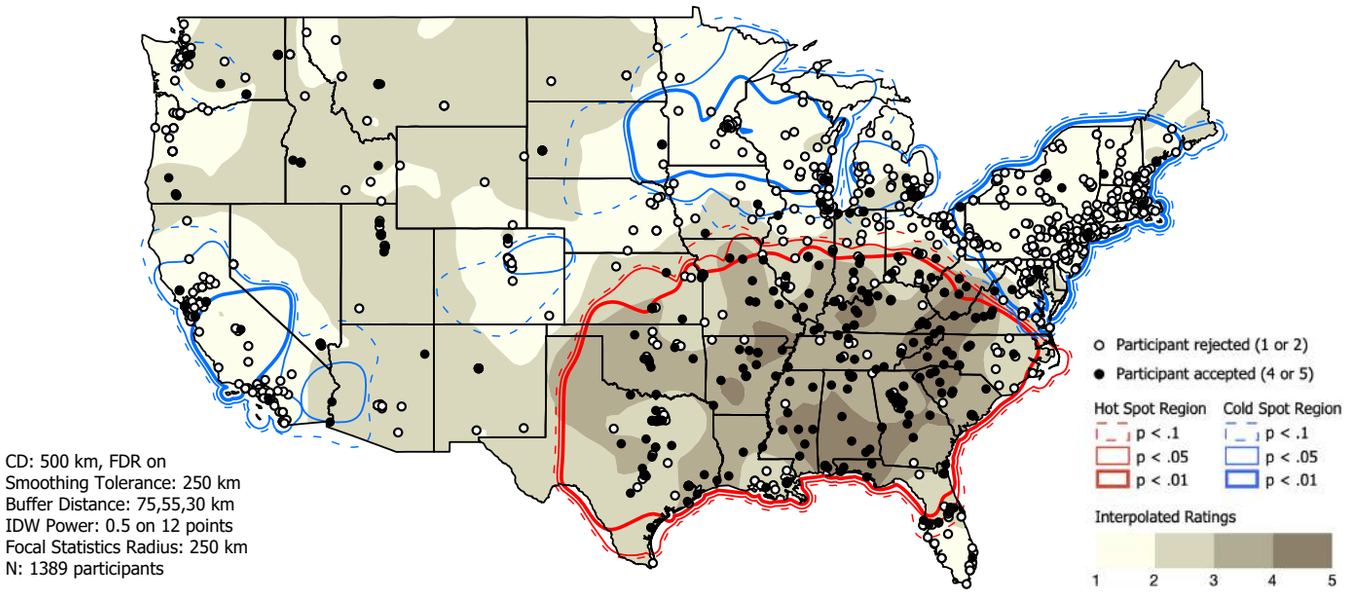
Education



Urban/Rural

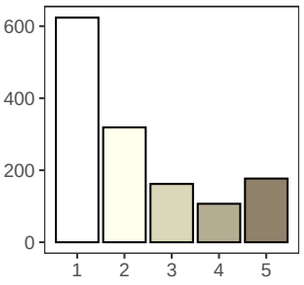


F1099: "Here's John a glass of iced-tea."

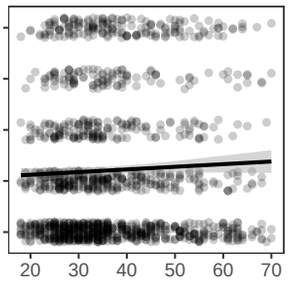


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

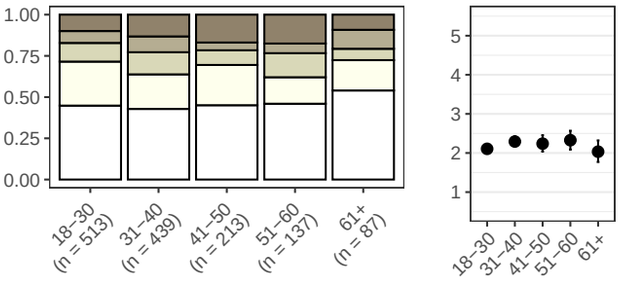
Judgments



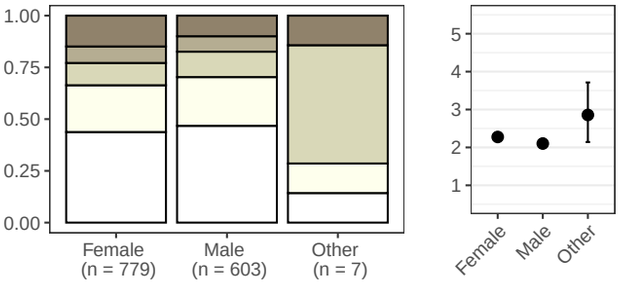
Age



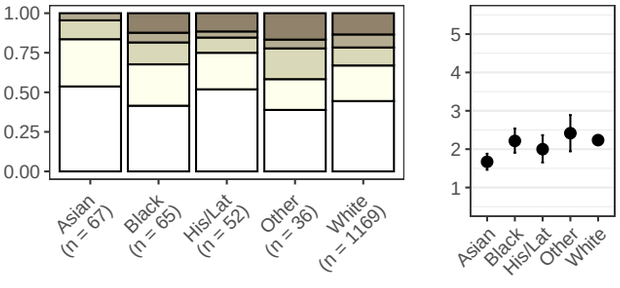
Age groups



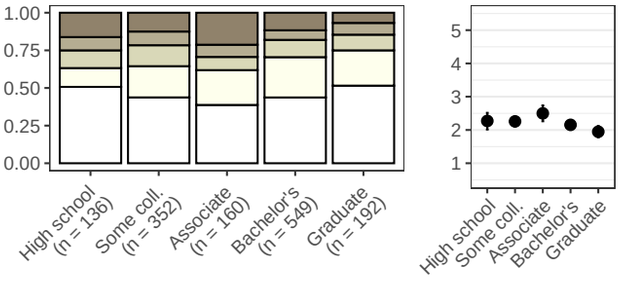
Gender



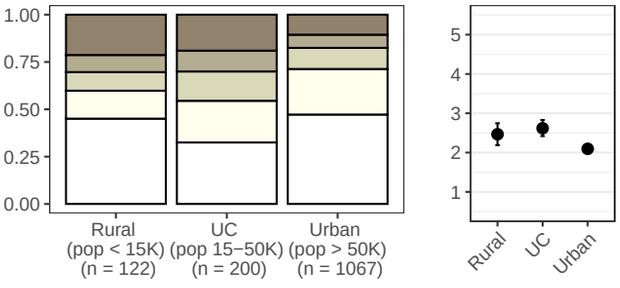
Race



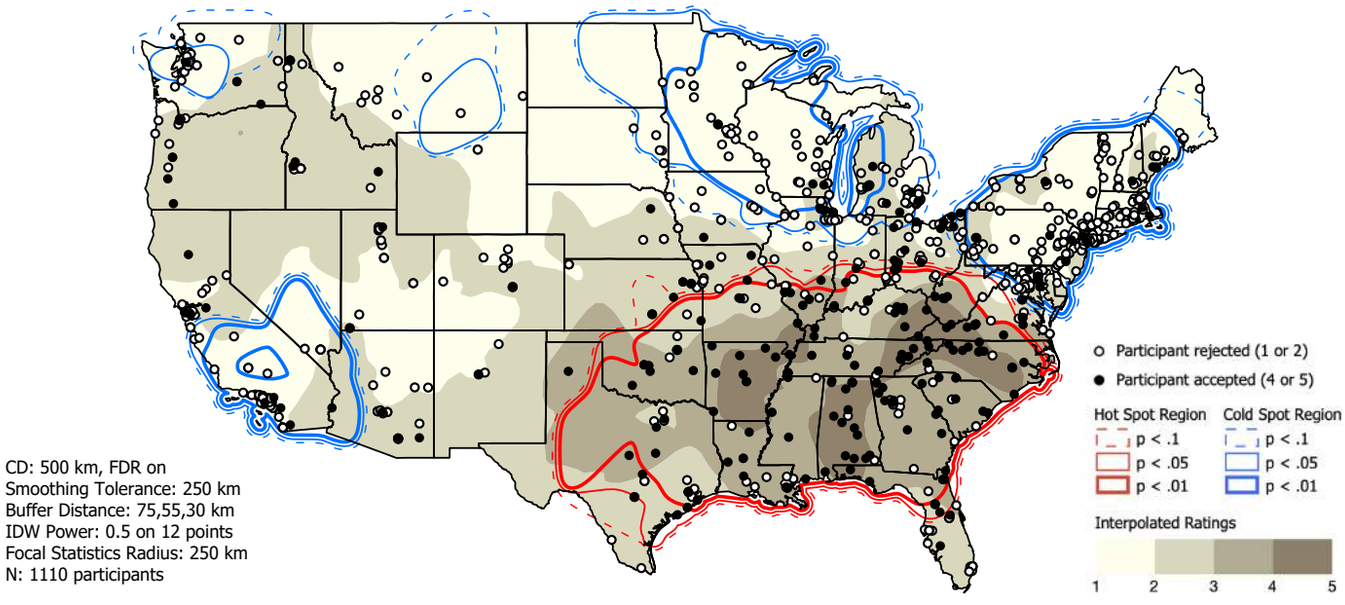
Education



Urban/Rural

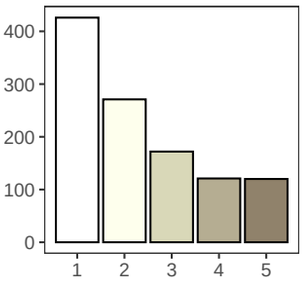


F116: "Here's you some money."

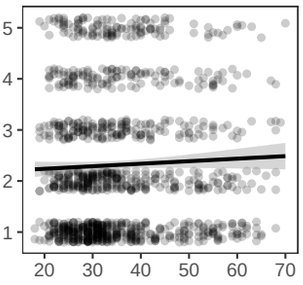


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

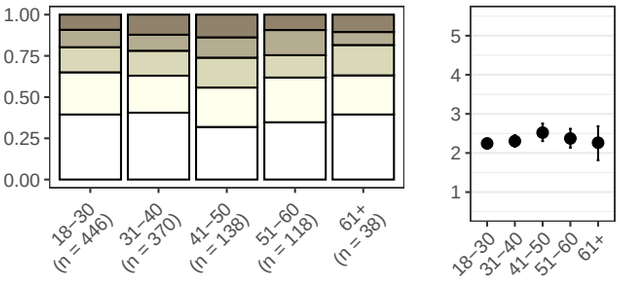
Judgments



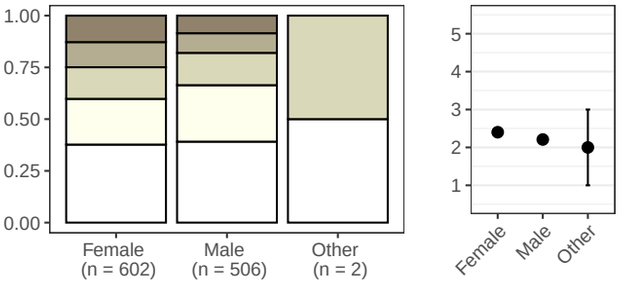
Age



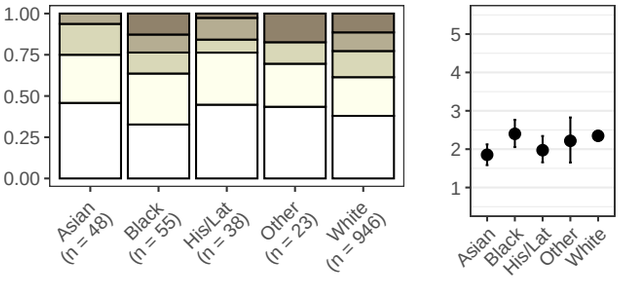
Age groups



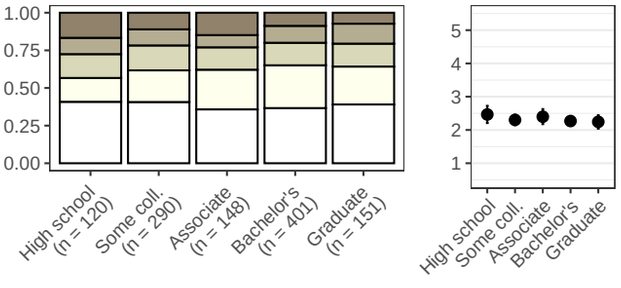
Gender



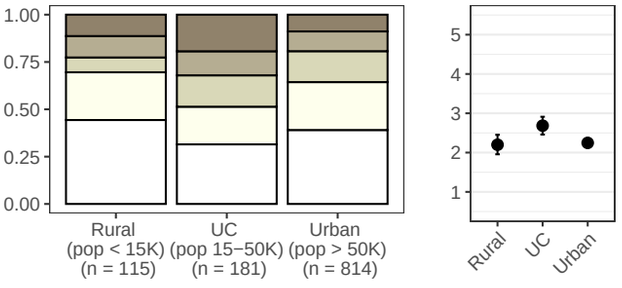
Race



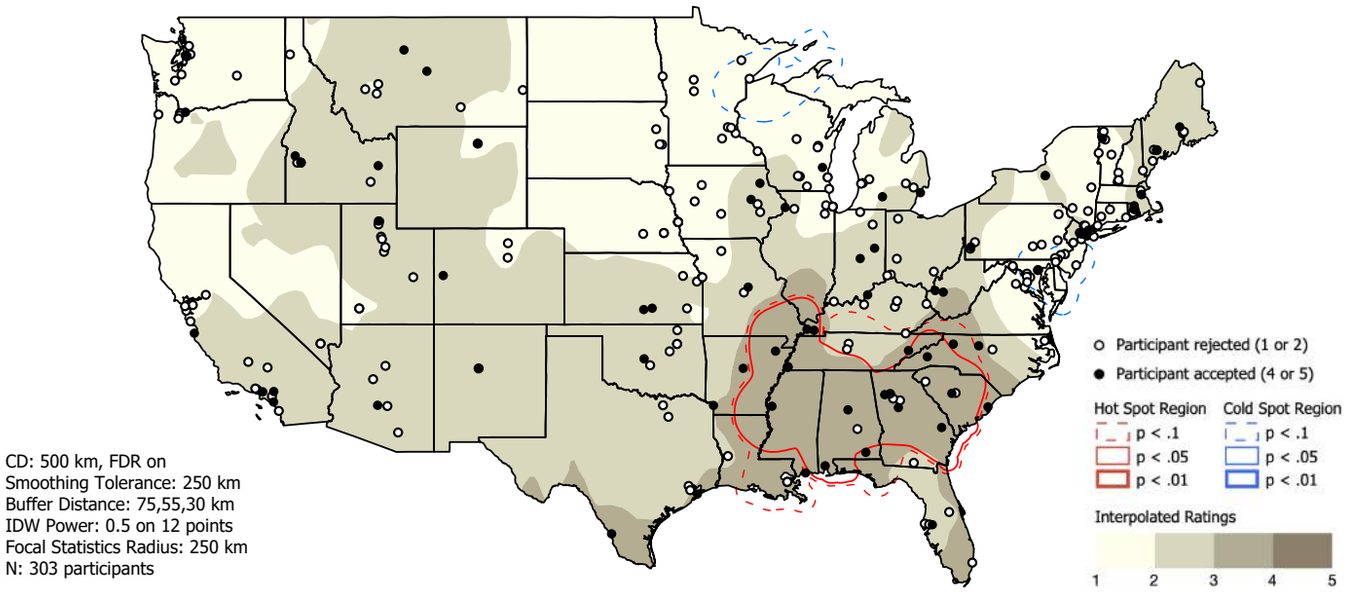
Education



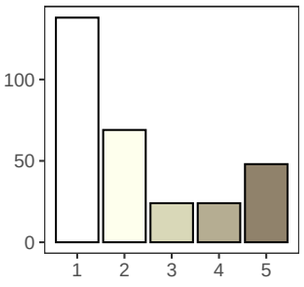
Urban/Rural



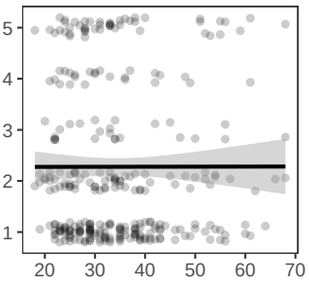
F1118: "Here are you a few tips to avoid these problems."



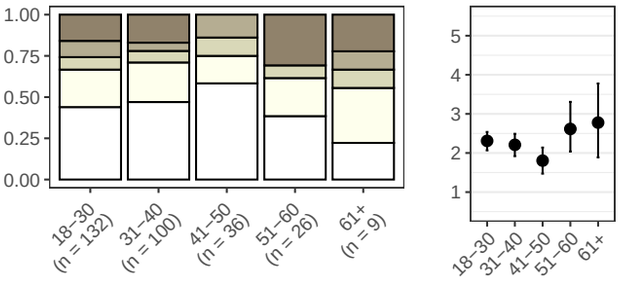
Judgments



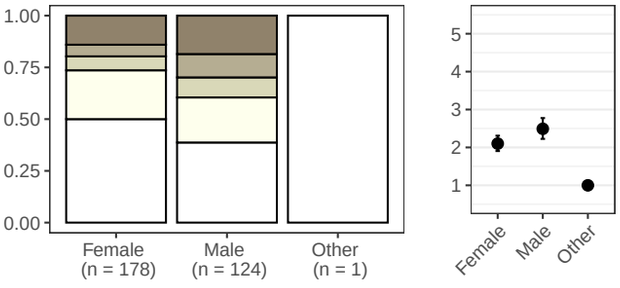
Age



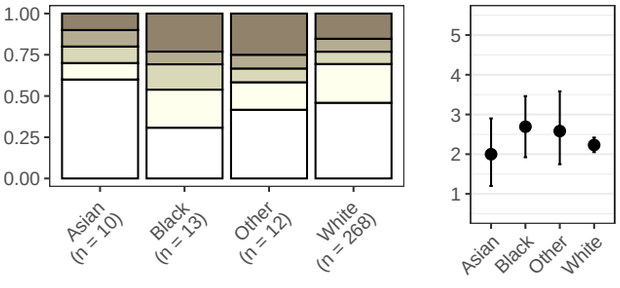
Age groups



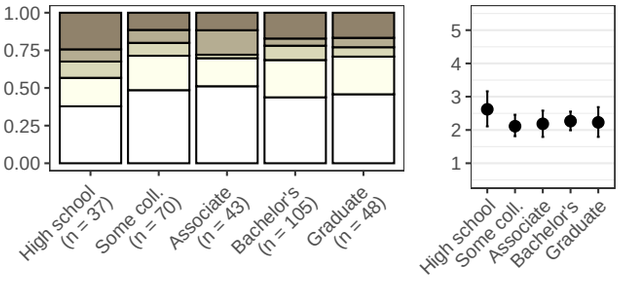
Gender



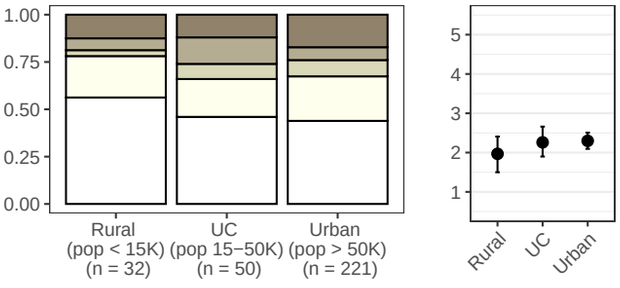
Race



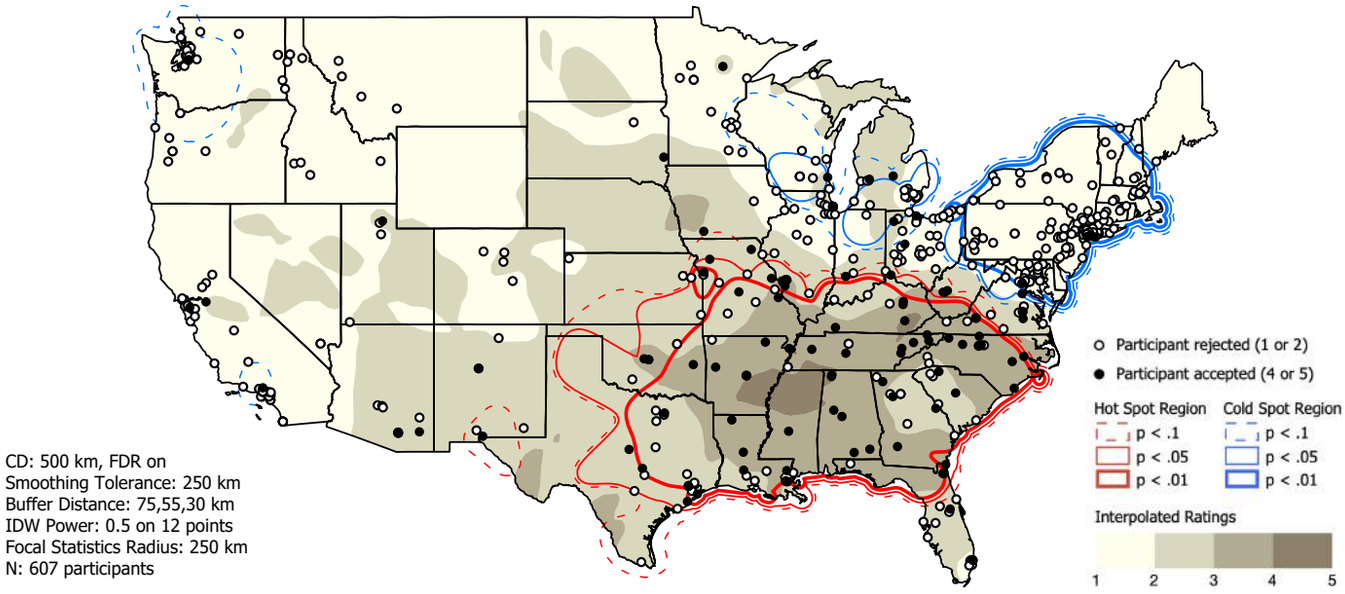
Education



Urban/Rural

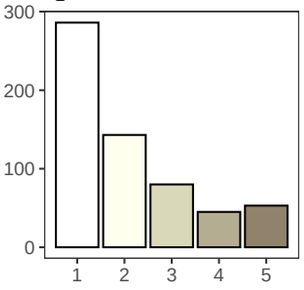


F1118.1: "Here are you some books."

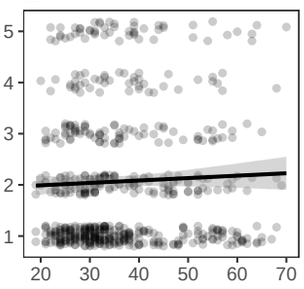


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 607 participants

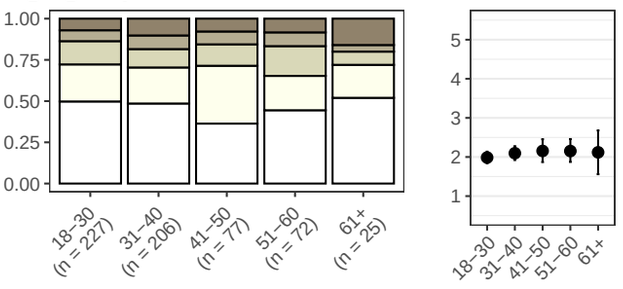
Judgments



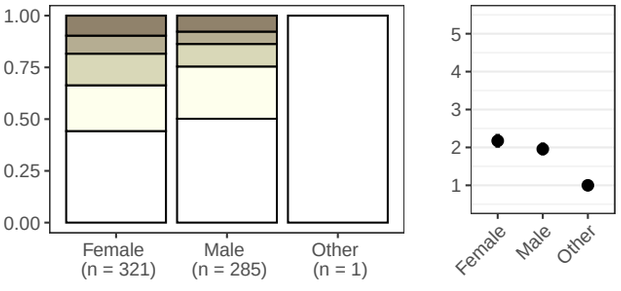
Age



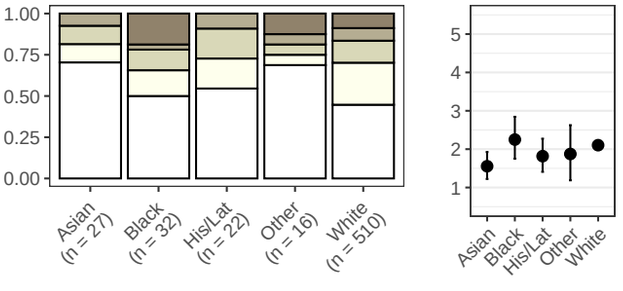
Age groups



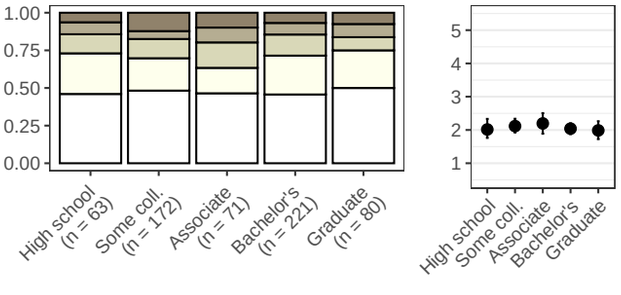
Gender



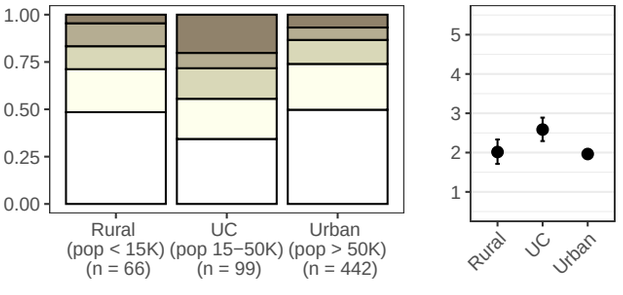
Race



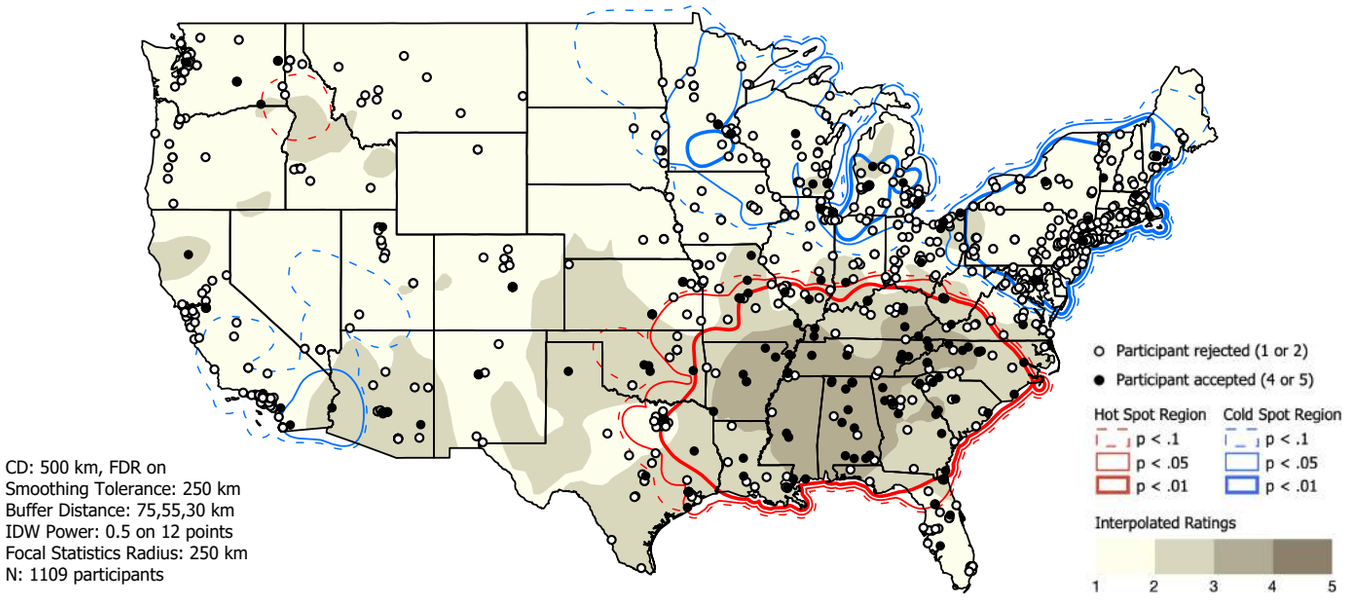
Education



Urban/Rural

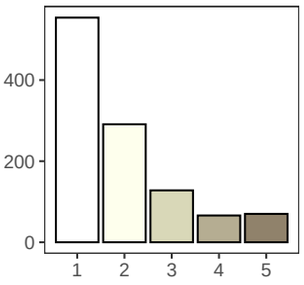


F1119: "Here is you a new bunny."

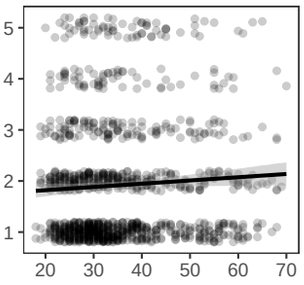


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1109 participants

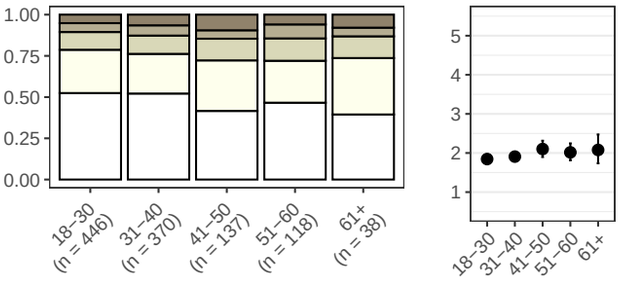
Judgments



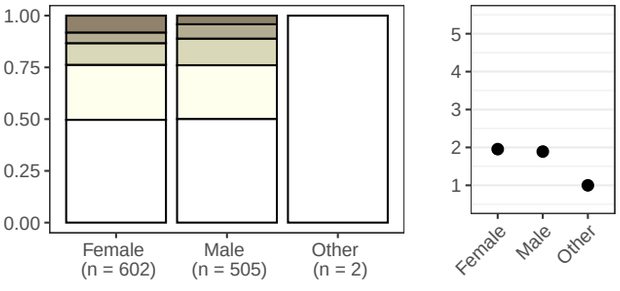
Age



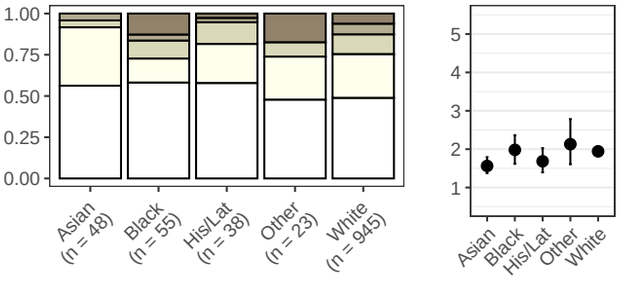
Age groups



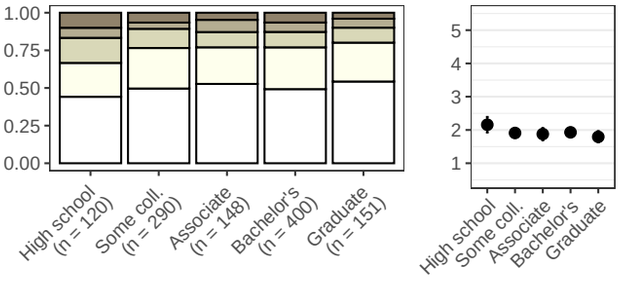
Gender



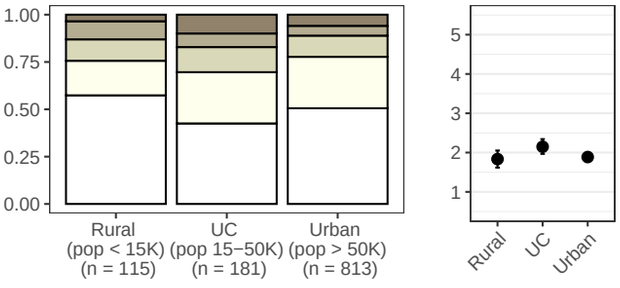
Race



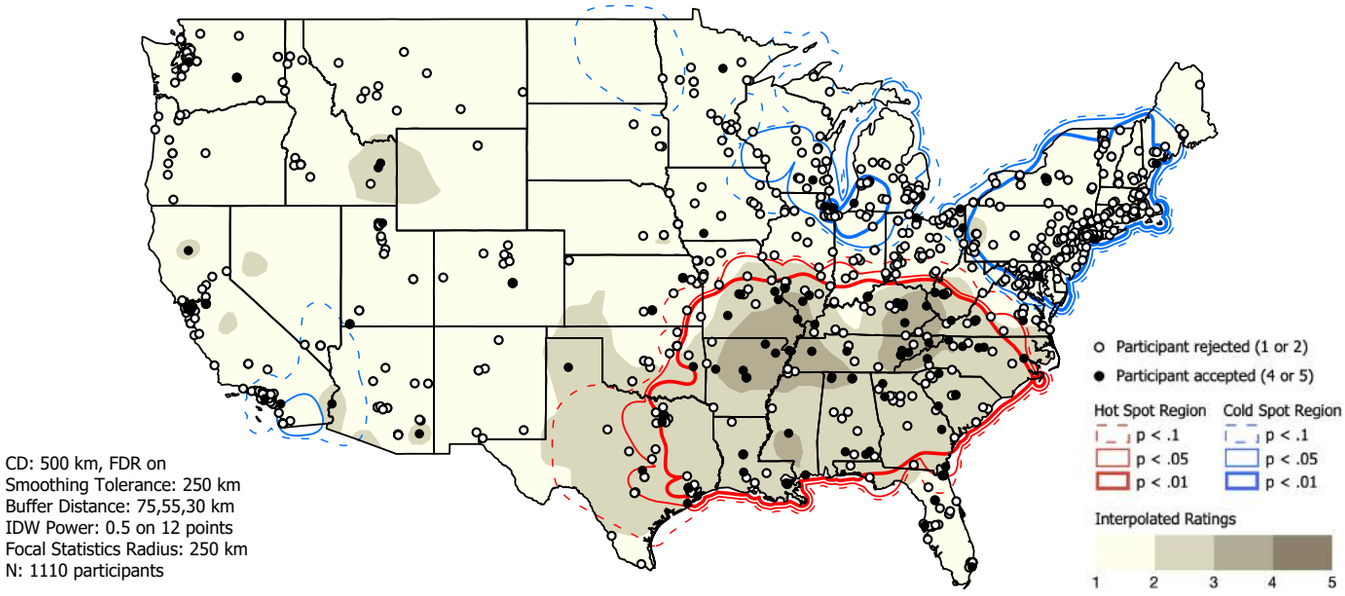
Education



Urban/Rural

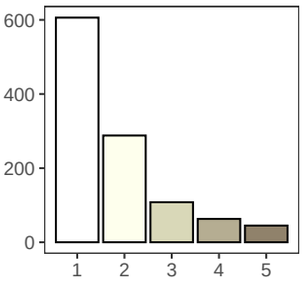


F1120: "Here is you some camping ideas."

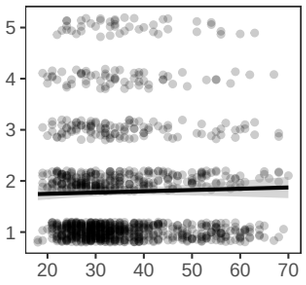


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

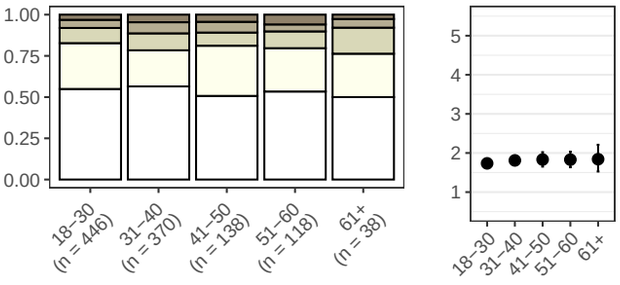
Judgments



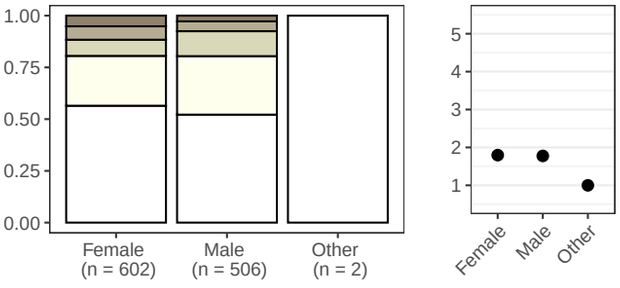
Age



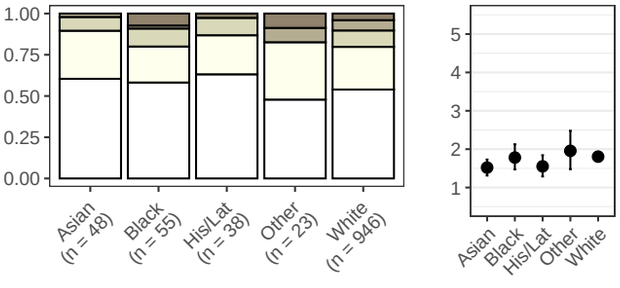
Age groups



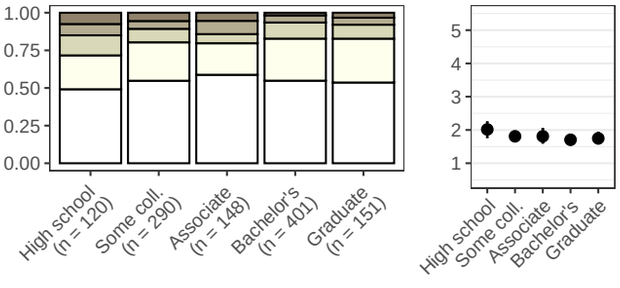
Gender



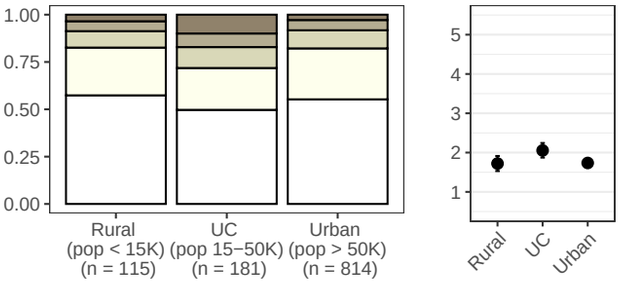
Race



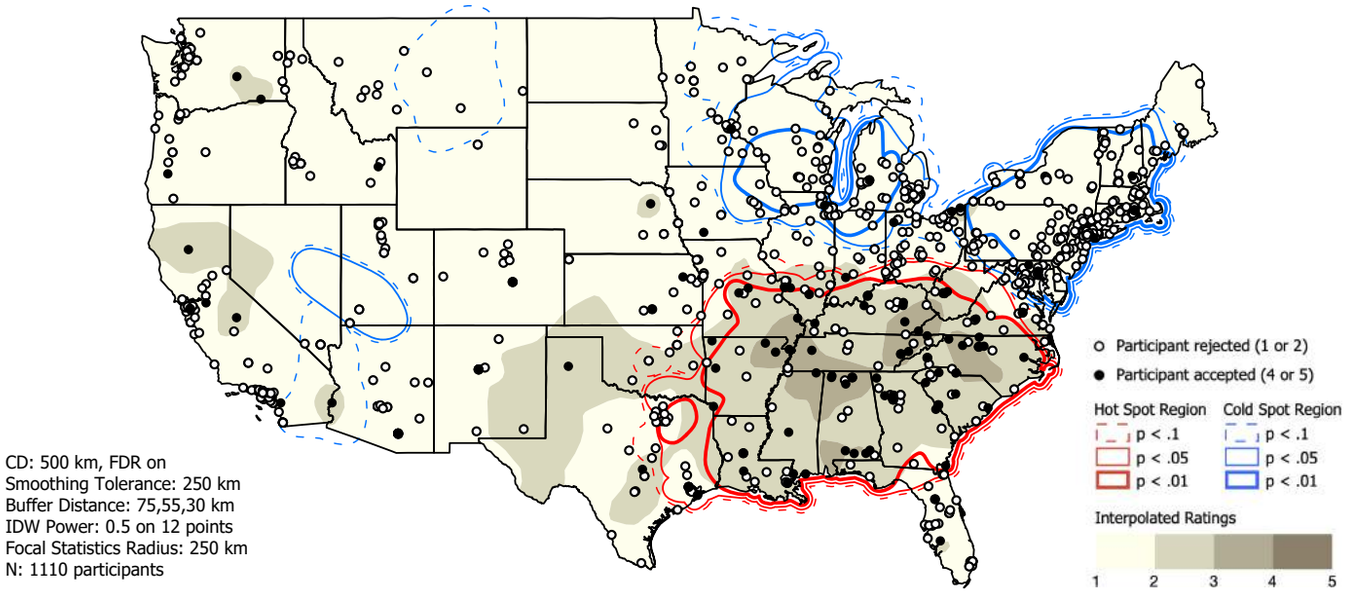
Education



Urban/Rural

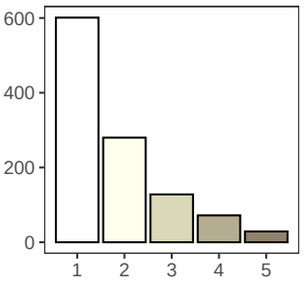


F1121: "Here comes you a bus."

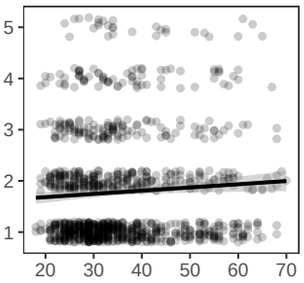


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

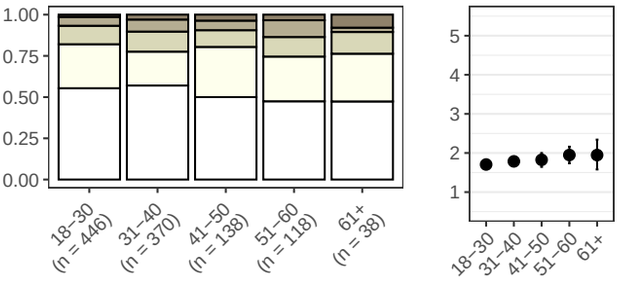
Judgments



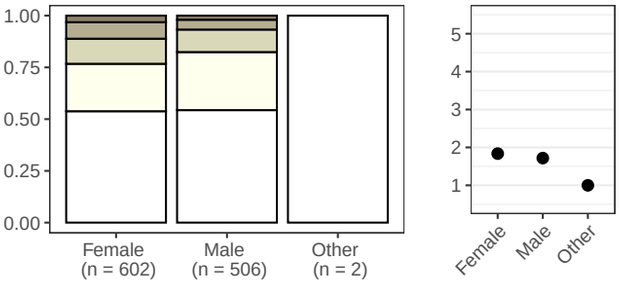
Age



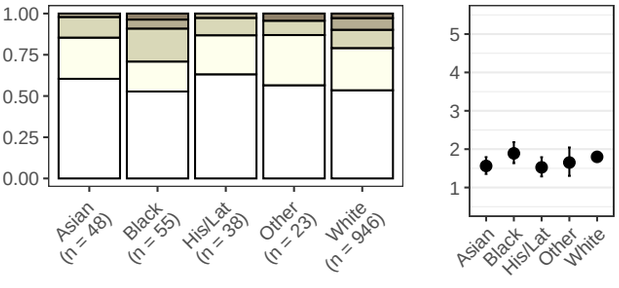
Age groups



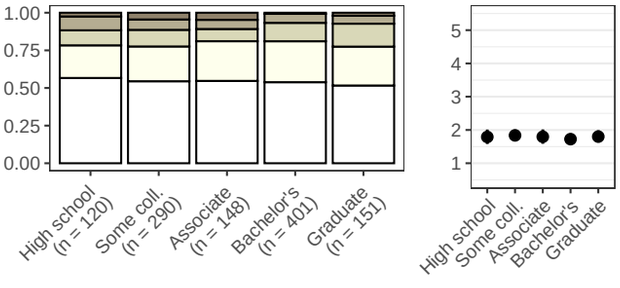
Gender



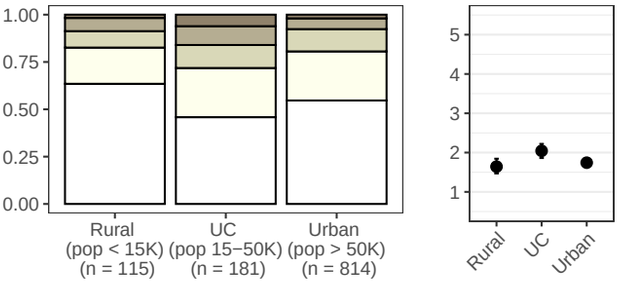
Race



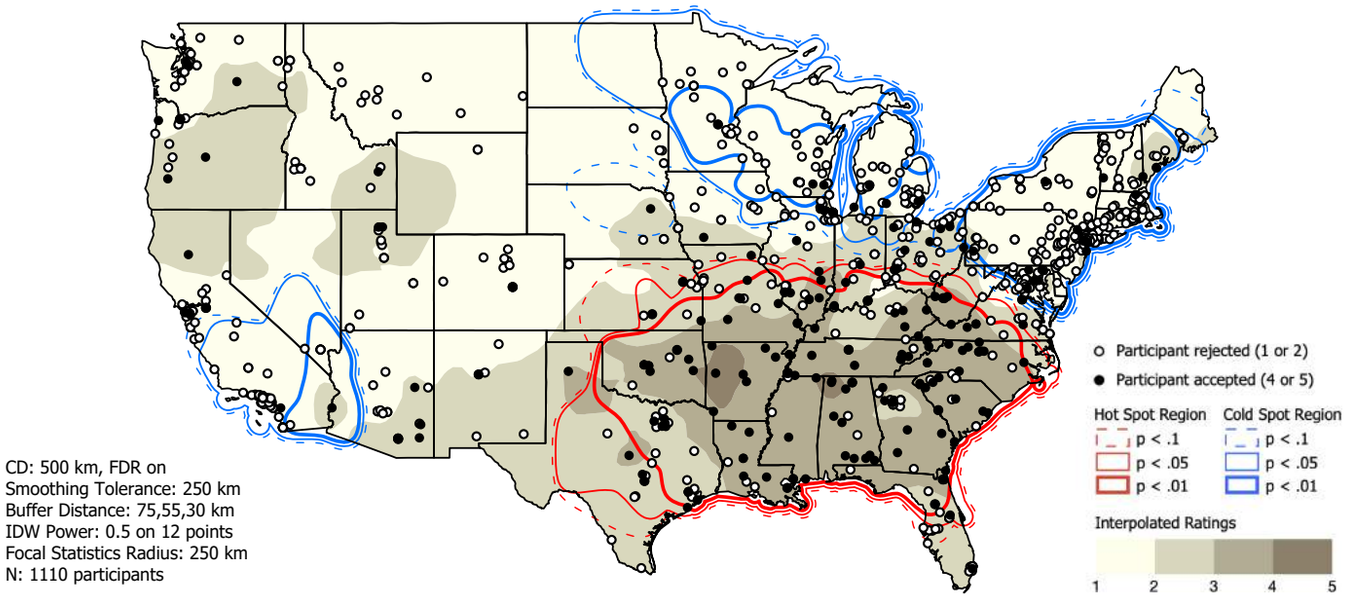
Education



Urban/Rural

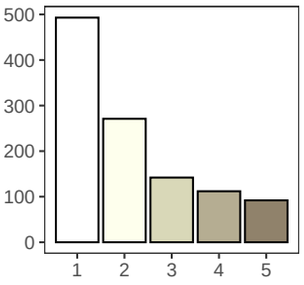


F1122: "Here's you some fun ideas."

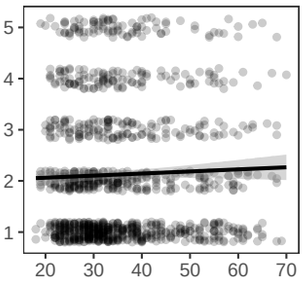


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

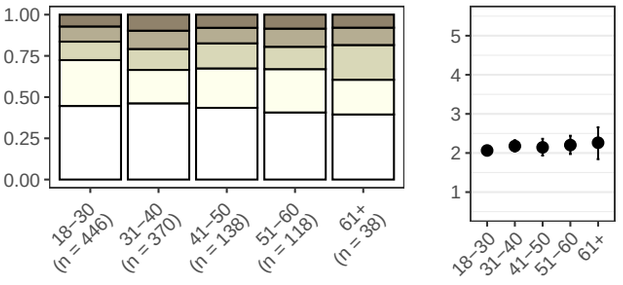
Judgments



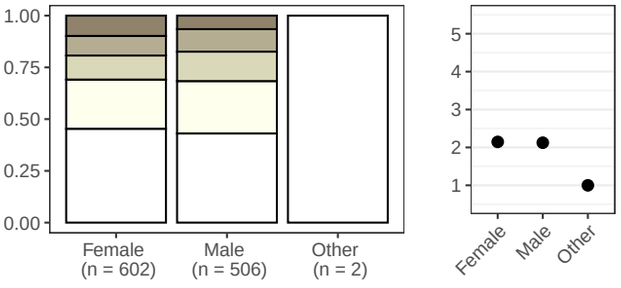
Age



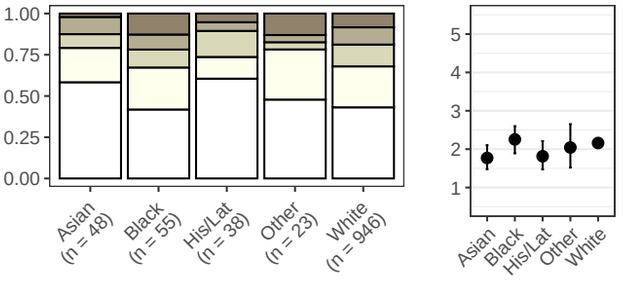
Age groups



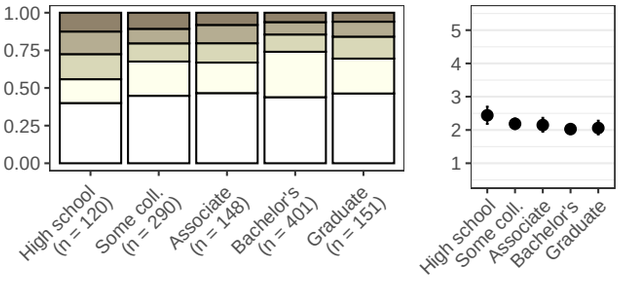
Gender



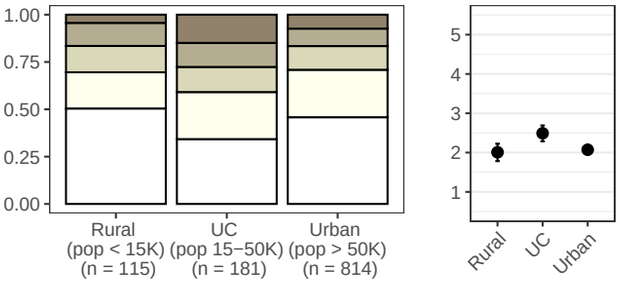
Race



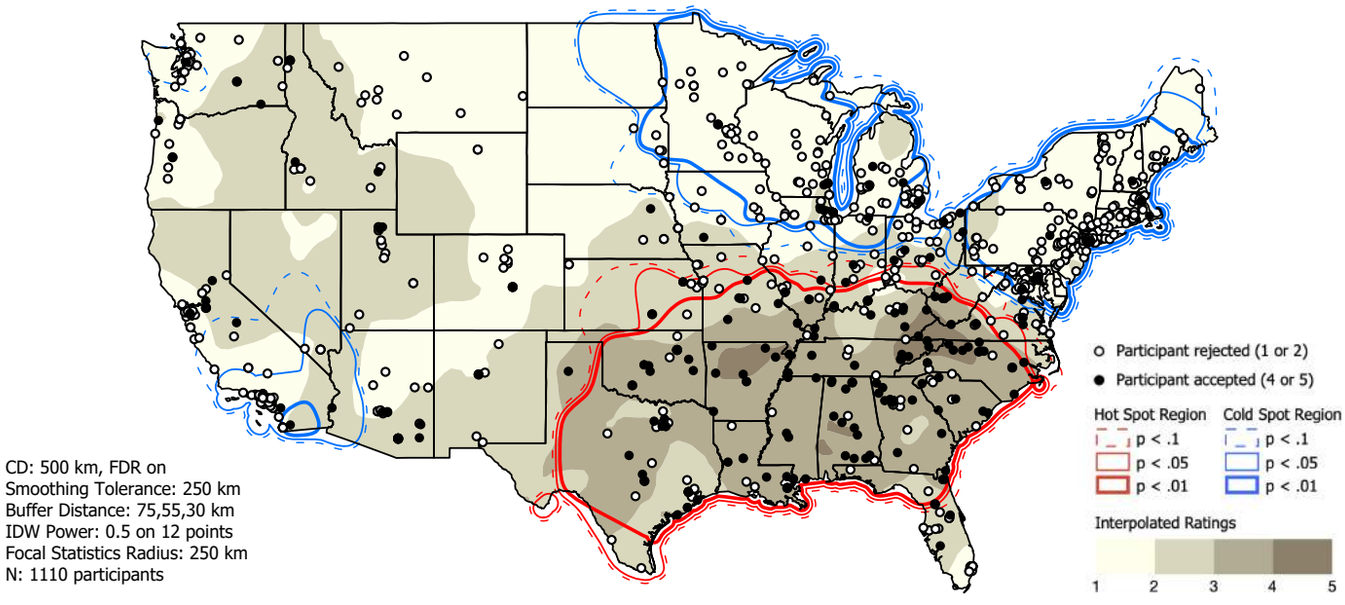
Education



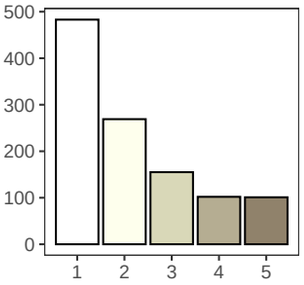
Urban/Rural



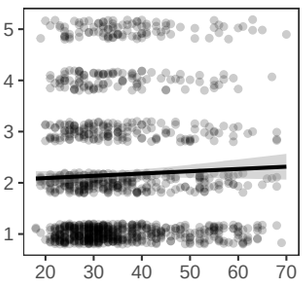
F1117: "There's you a piece of pizza."



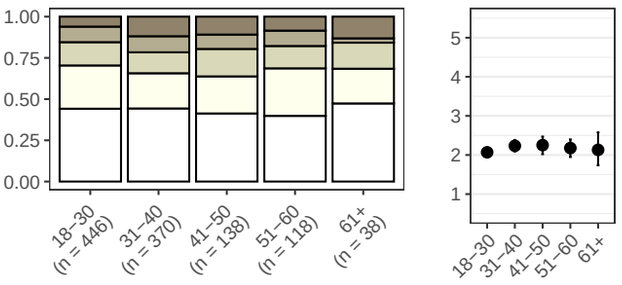
Judgments



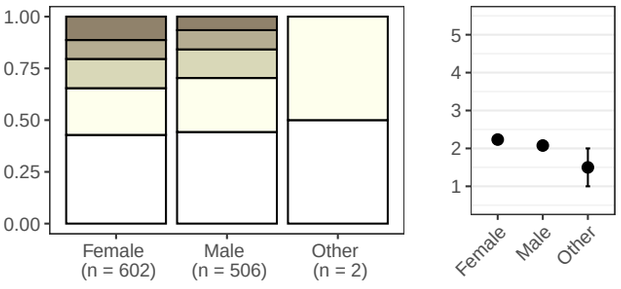
Age



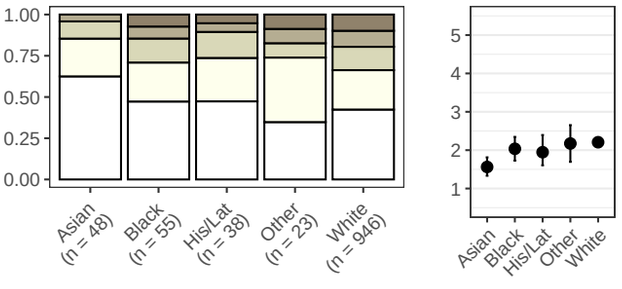
Age groups



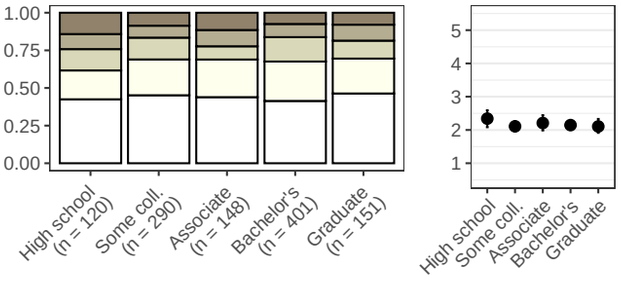
Gender



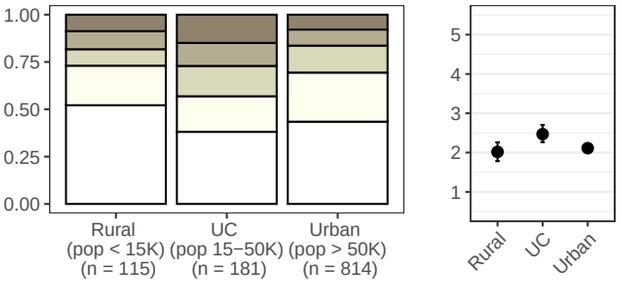
Race



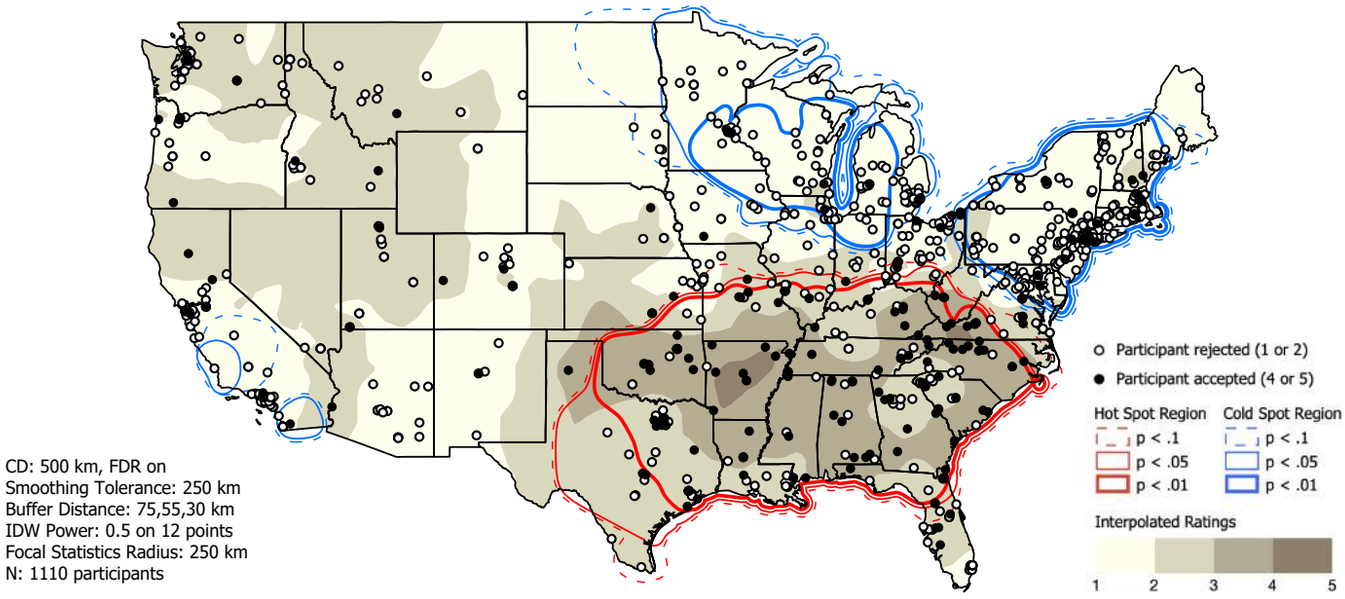
Education



Urban/Rural

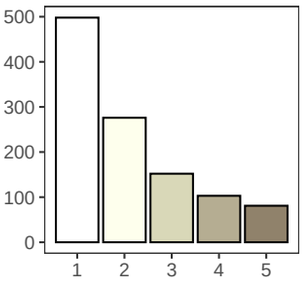


F1123: "Now there's me a new Easter dress."

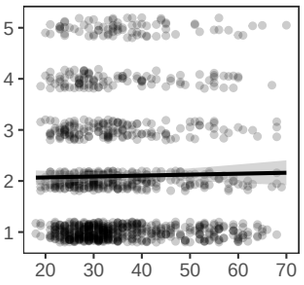


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

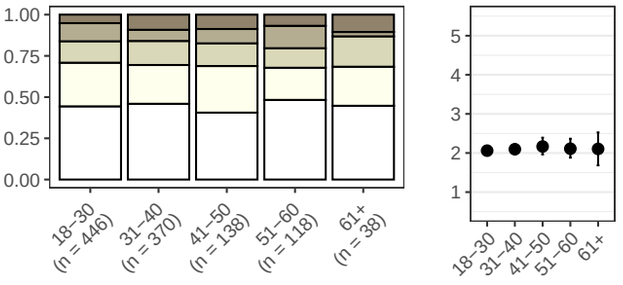
Judgments



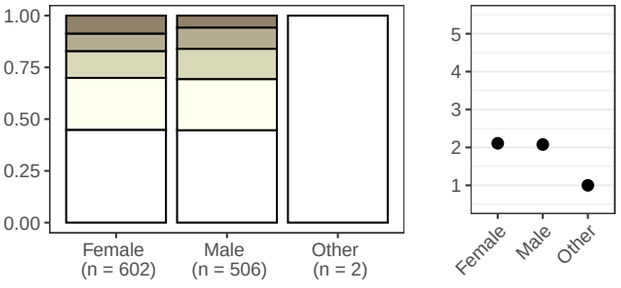
Age



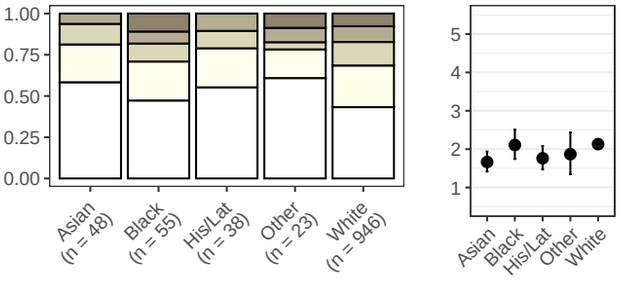
Age groups



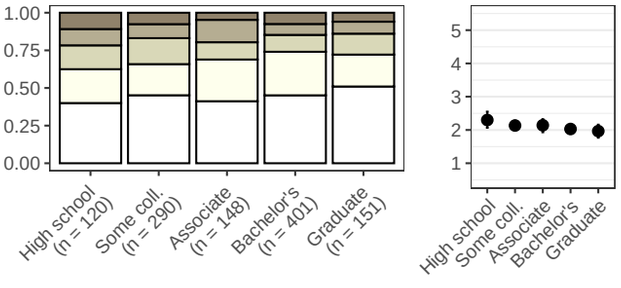
Gender



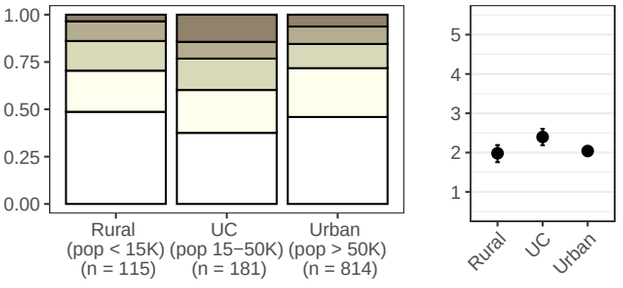
Race



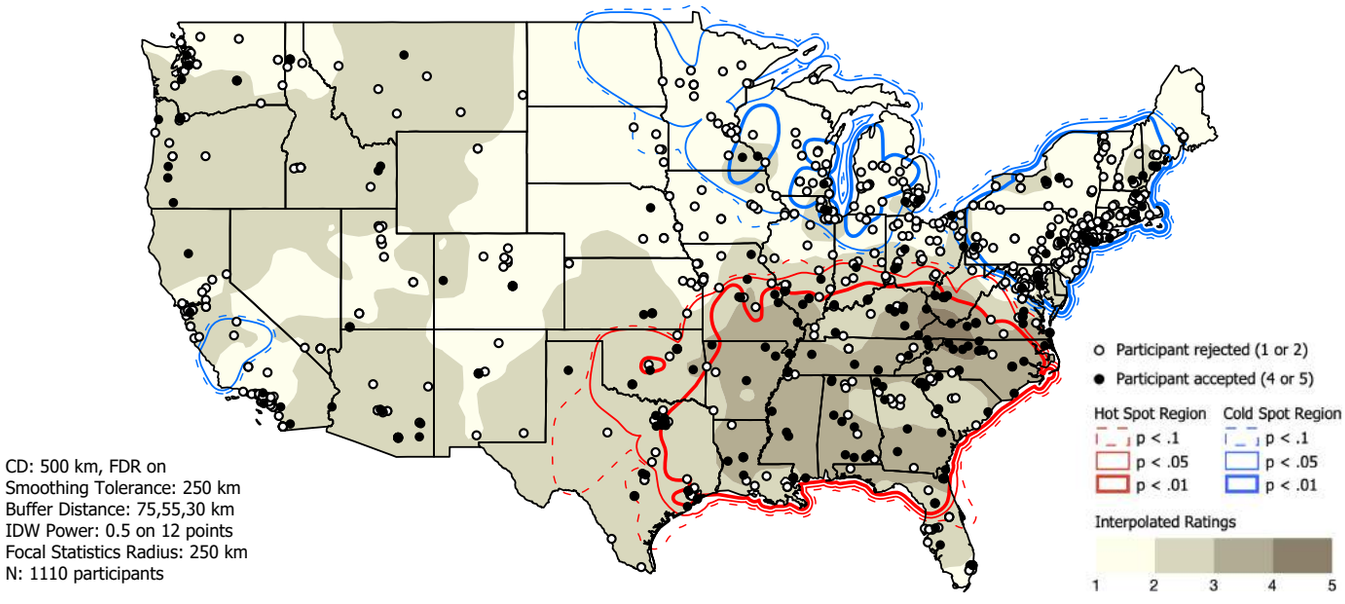
Education



Urban/Rural

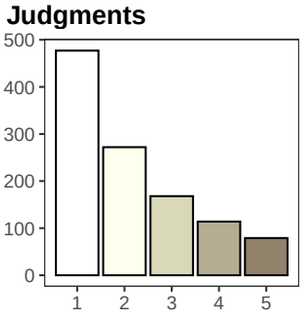


F1124: "Now there's us a story."

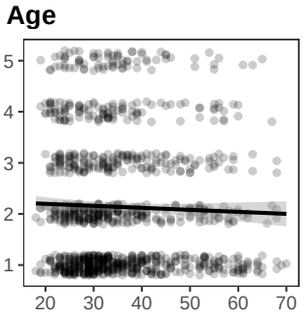


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

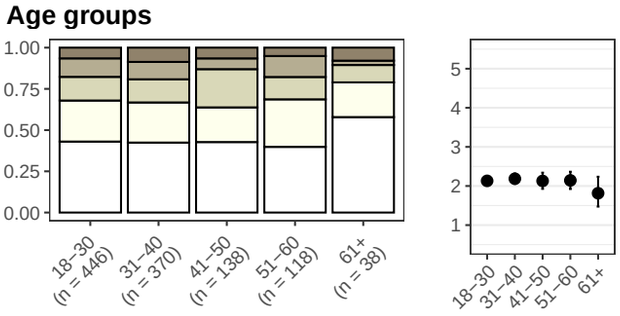
Judgments



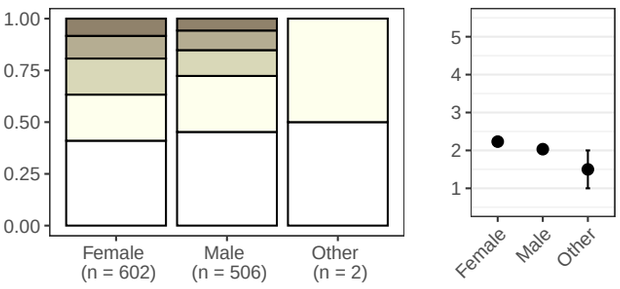
Age



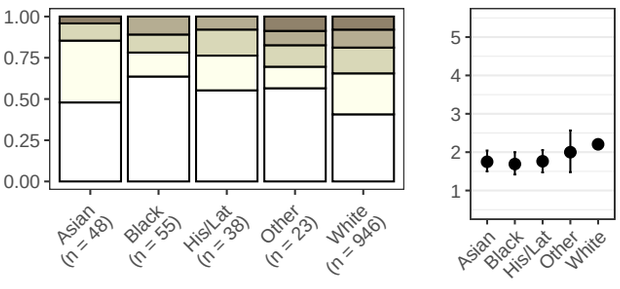
Age groups



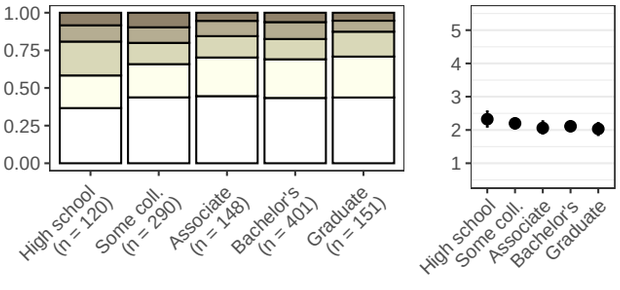
Gender



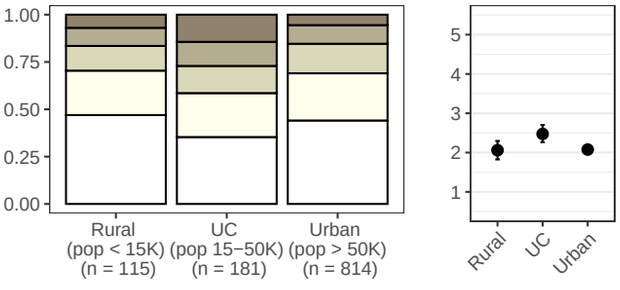
Race



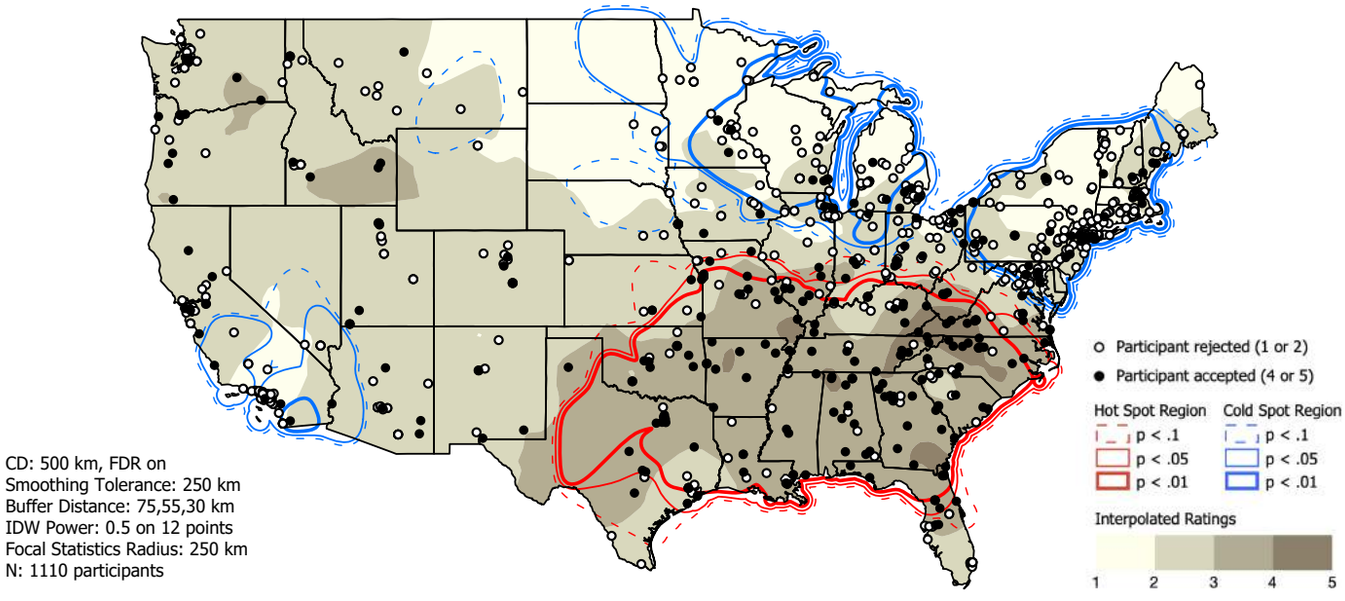
Education



Urban/Rural

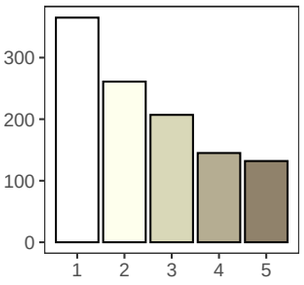


F1125: "Now there's us some easy money."

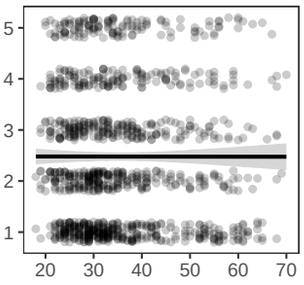


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1110 participants

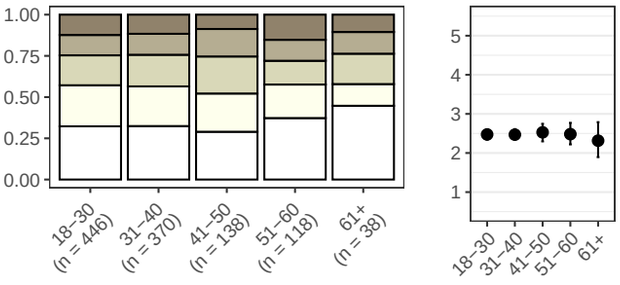
Judgments



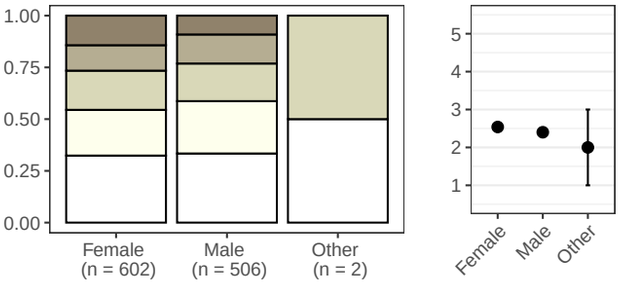
Age



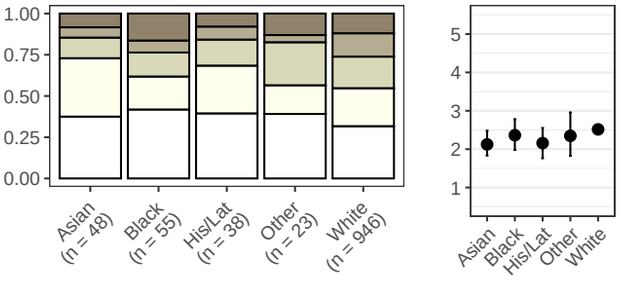
Age groups



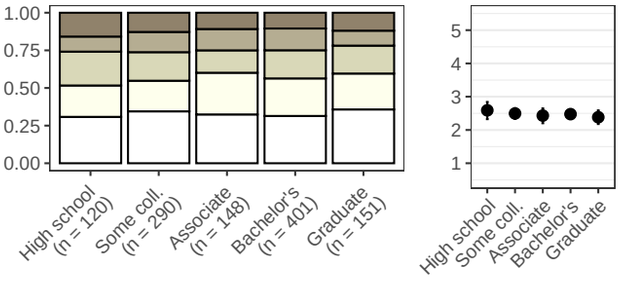
Gender



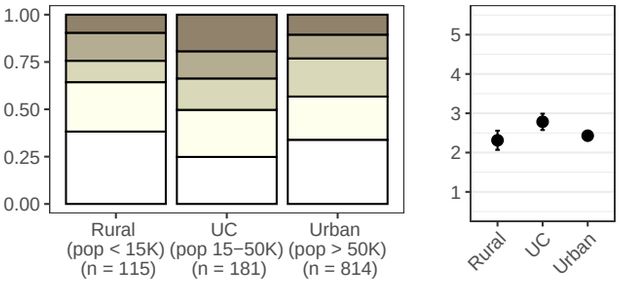
Race



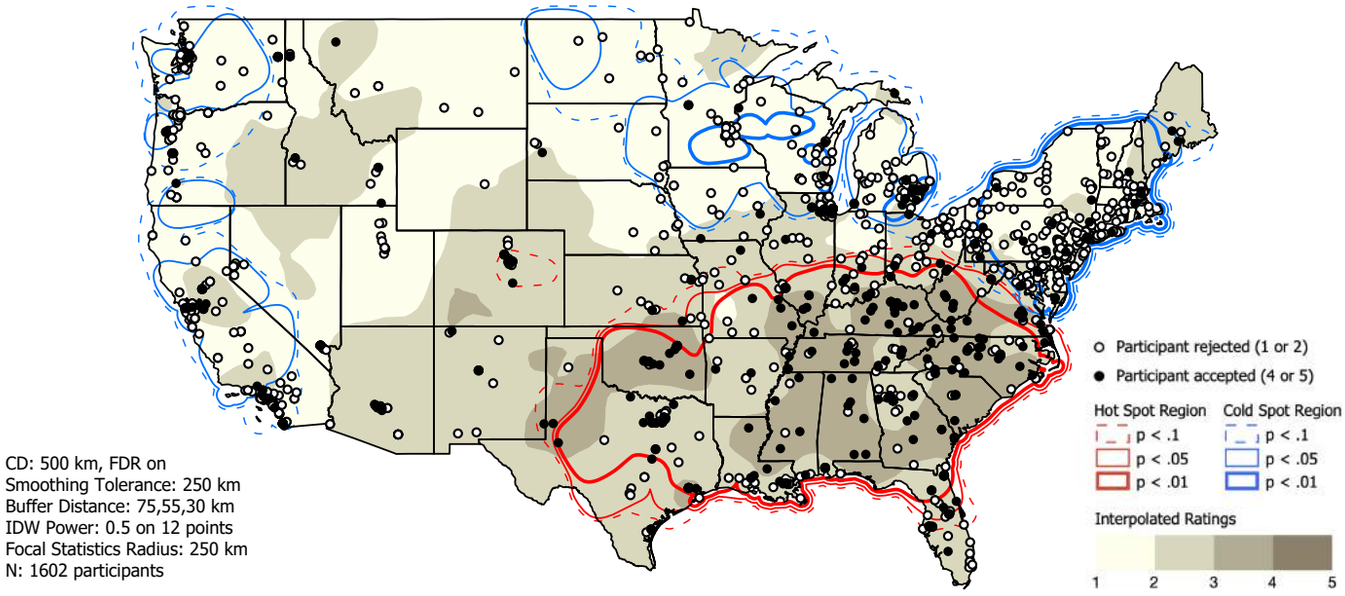
Education



Urban/Rural

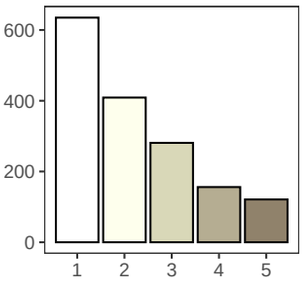


F1007: "Where's us some ripe blueberries?"

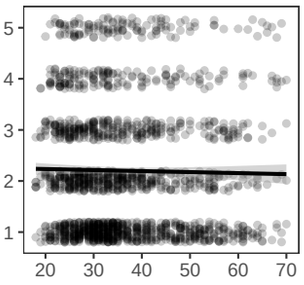


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

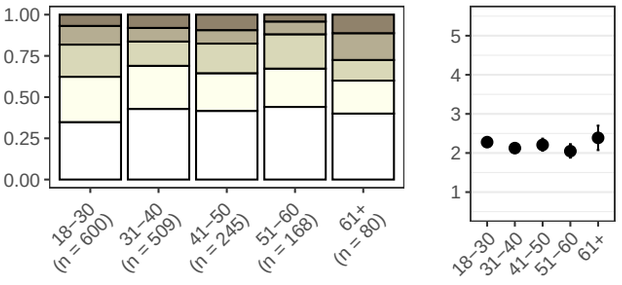
Judgments



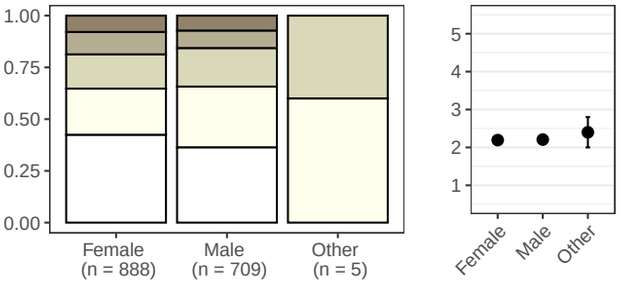
Age



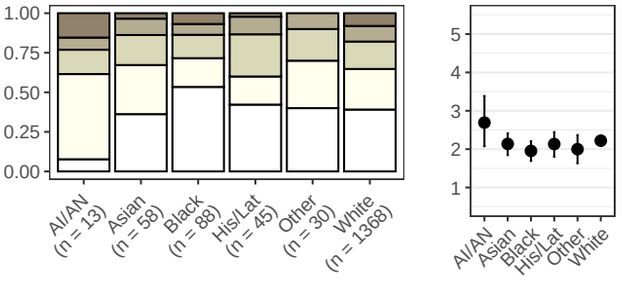
Age groups



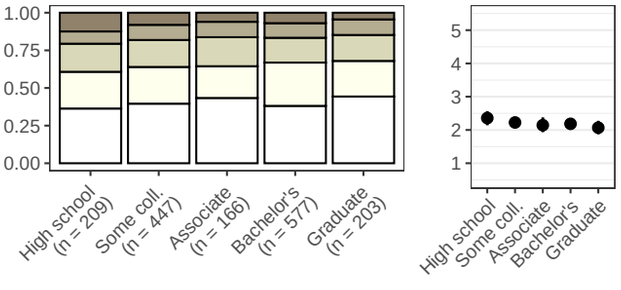
Gender



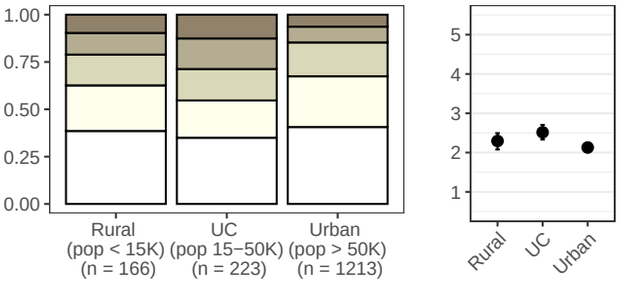
Race



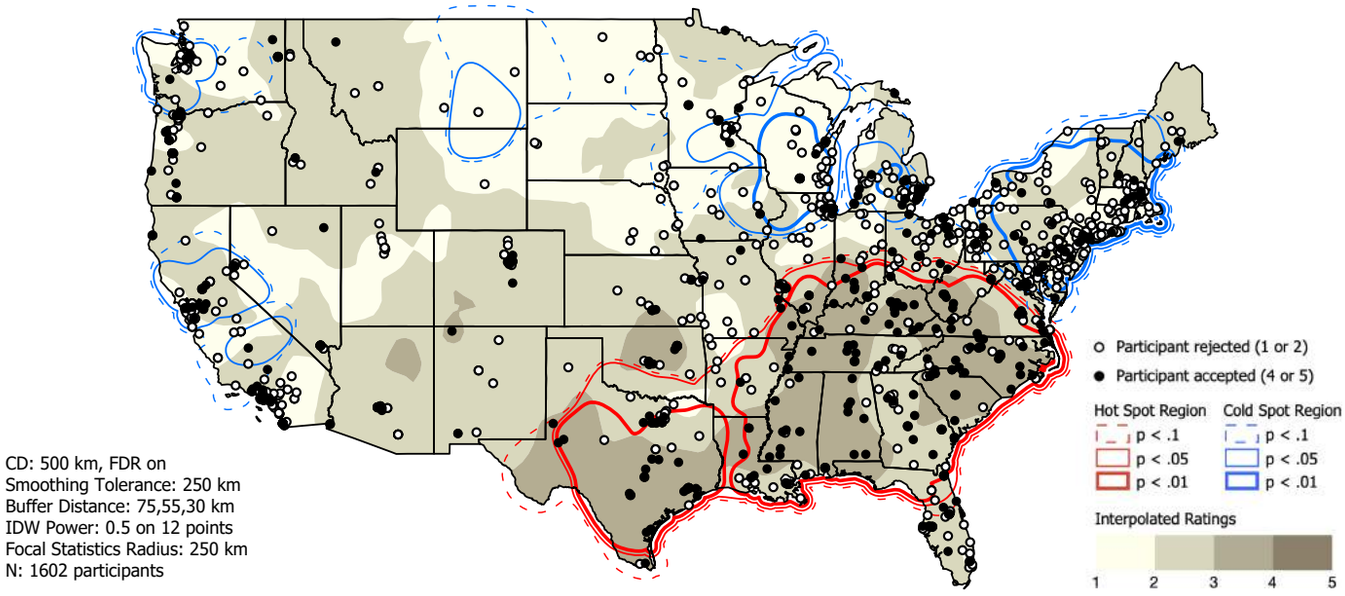
Education



Urban/Rural

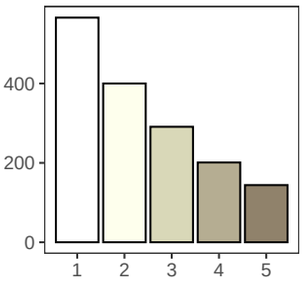


F1009: "Where are me some country boys?!"

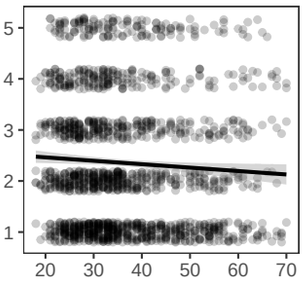


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

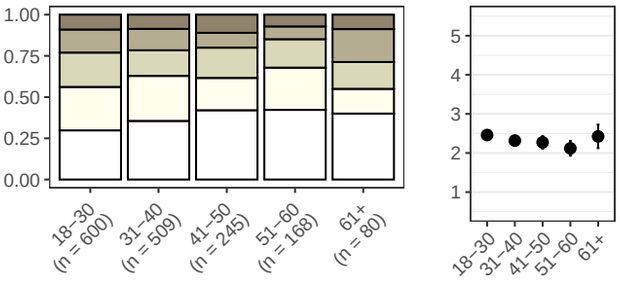
Judgments



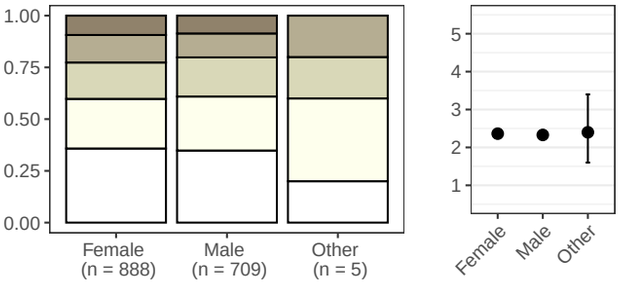
Age



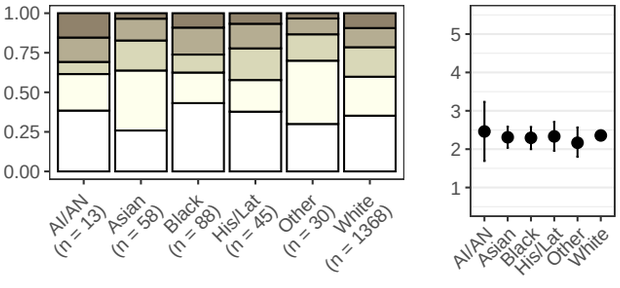
Age groups



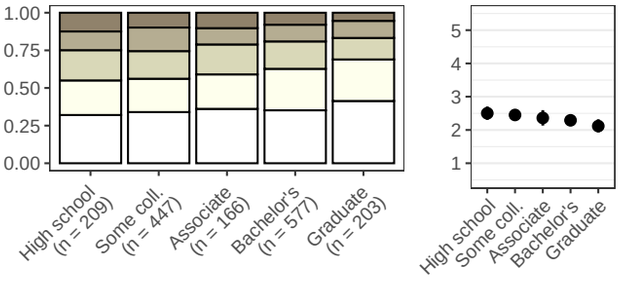
Gender



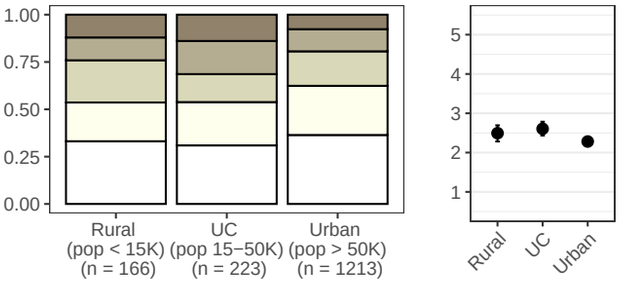
Race



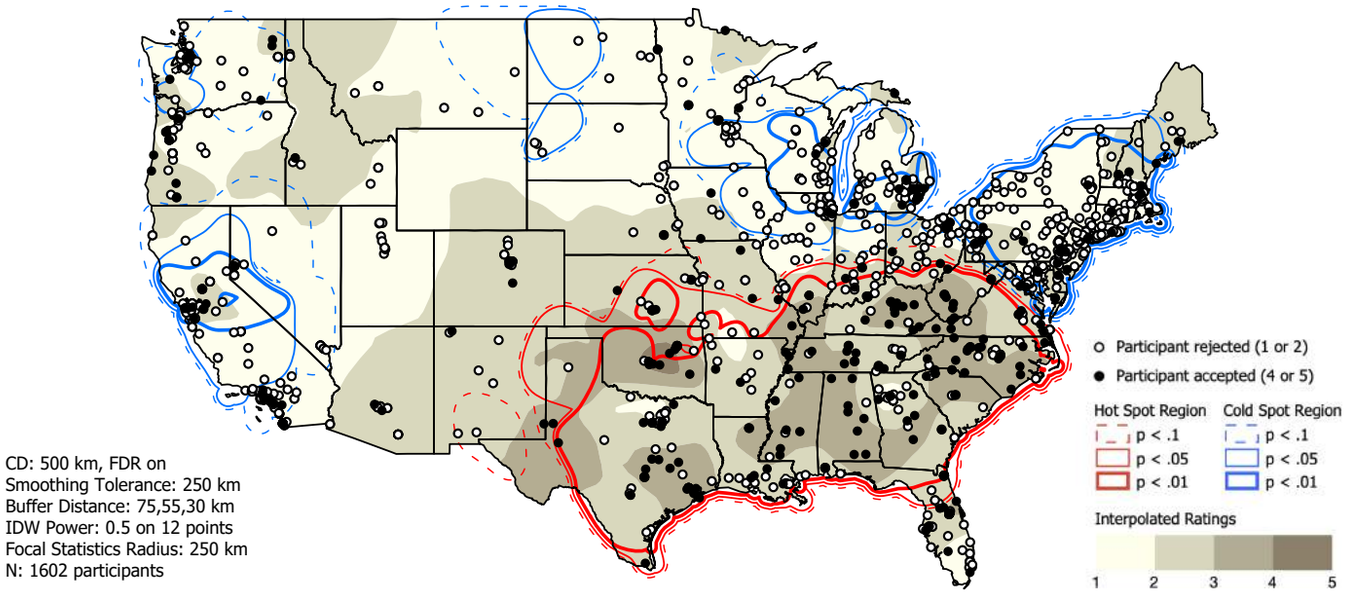
Education



Urban/Rural

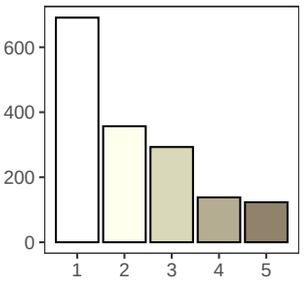


F1067: "Where's me a screwdriver?"

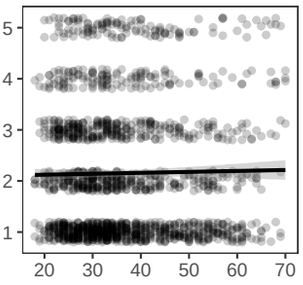


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

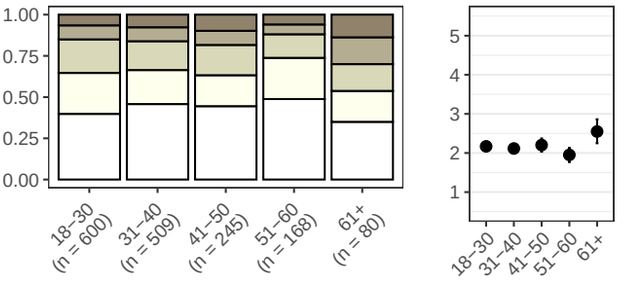
Judgments



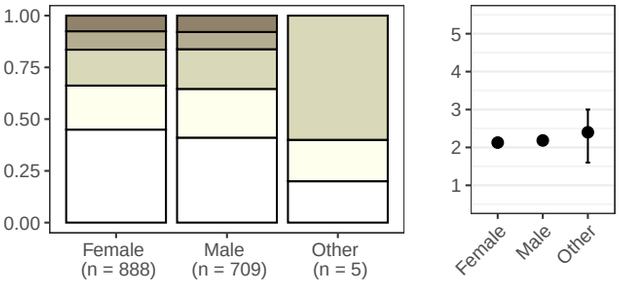
Age



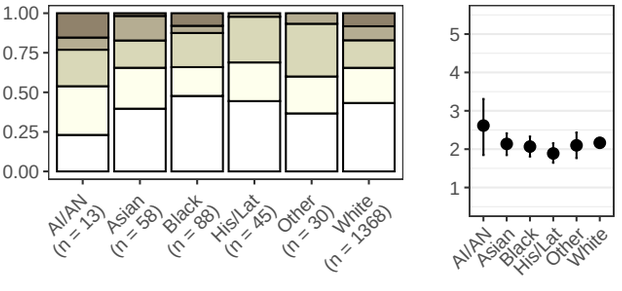
Age groups



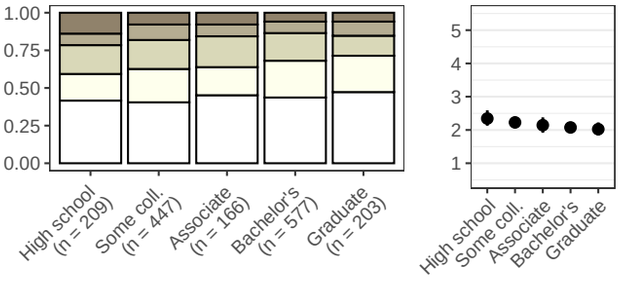
Gender



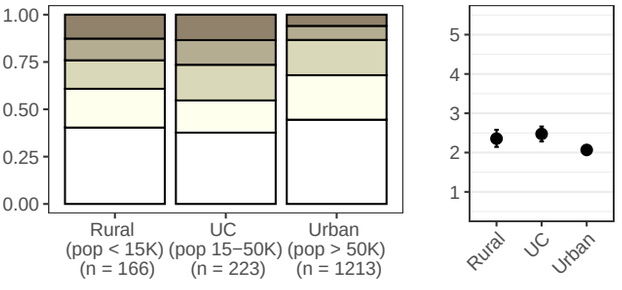
Race



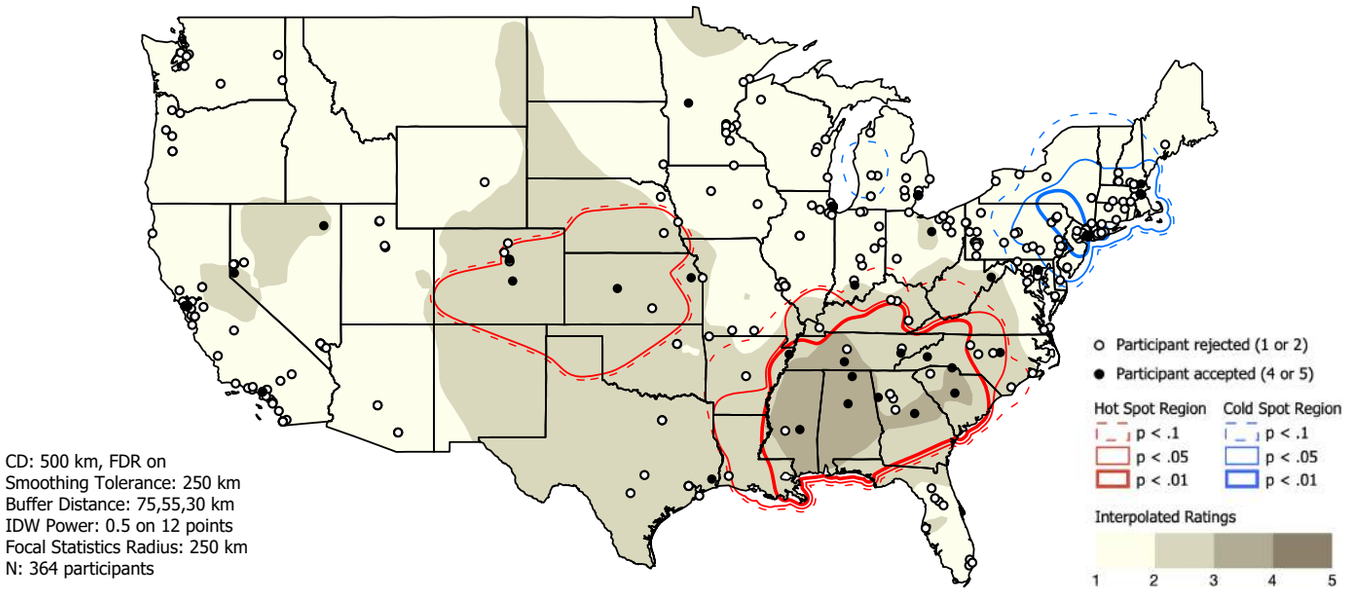
Education



Urban/Rural

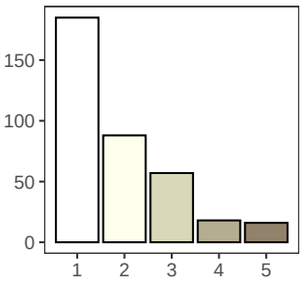


F1068: "Where's you a quiet place to study?"

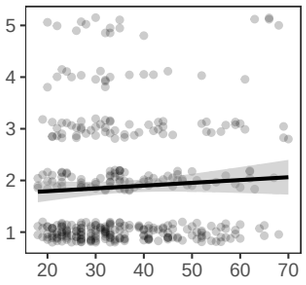


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 364 participants

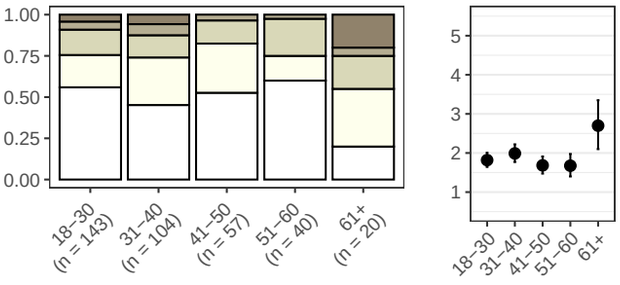
Judgments



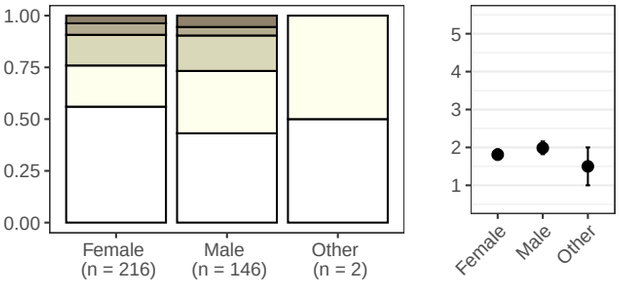
Age



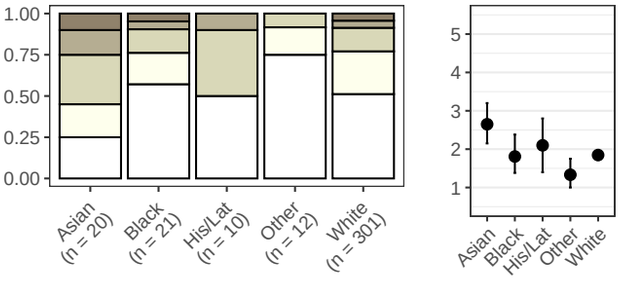
Age groups



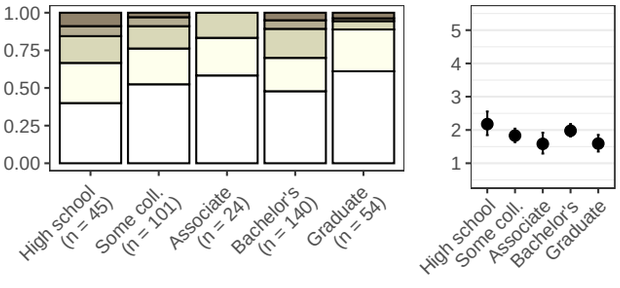
Gender



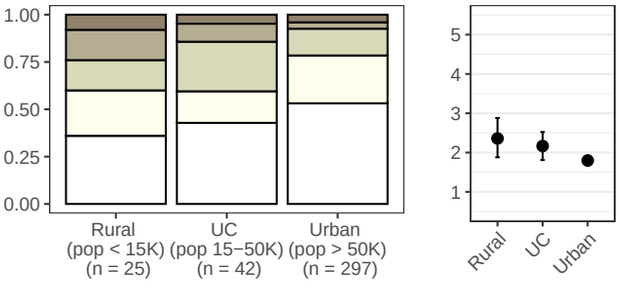
Race



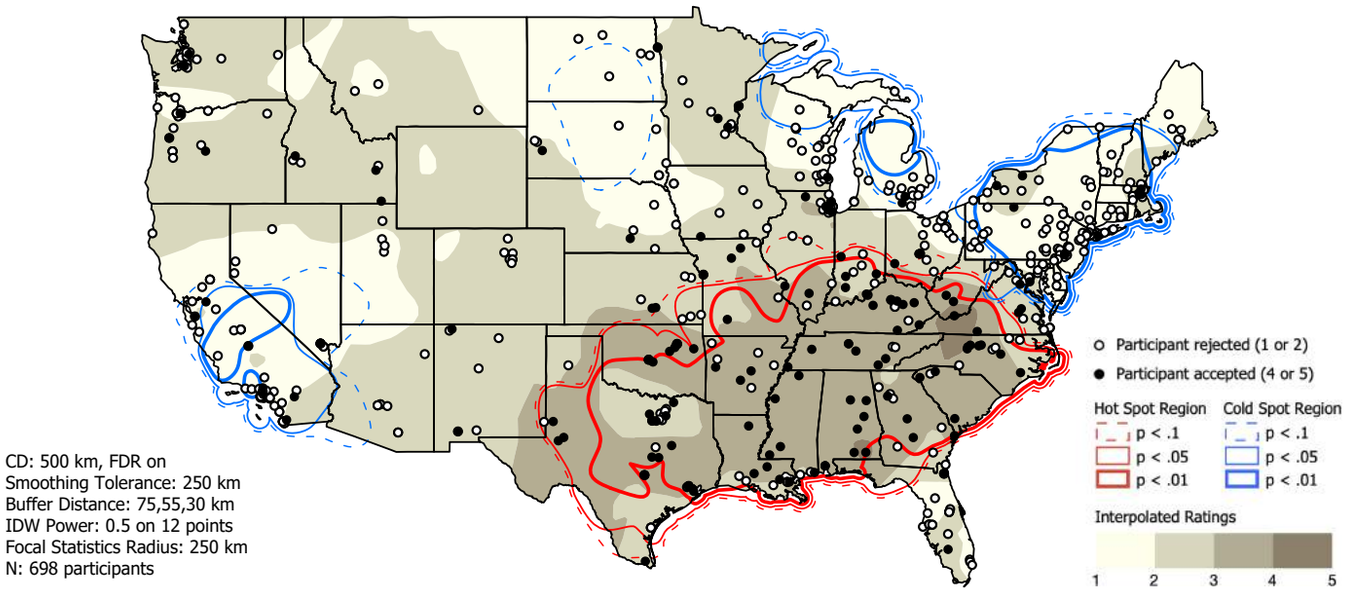
Education



Urban/Rural

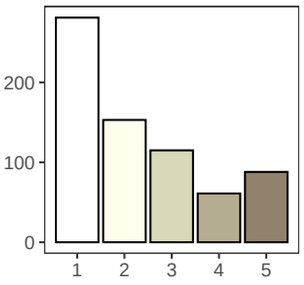


F1068.1: "Okay, now where's you a pillowcase?"

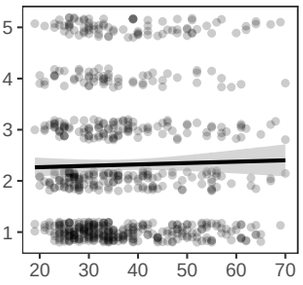


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

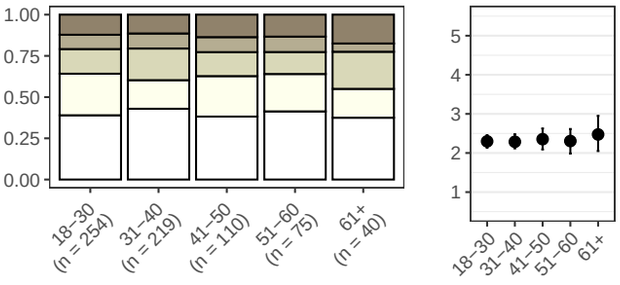
Judgments



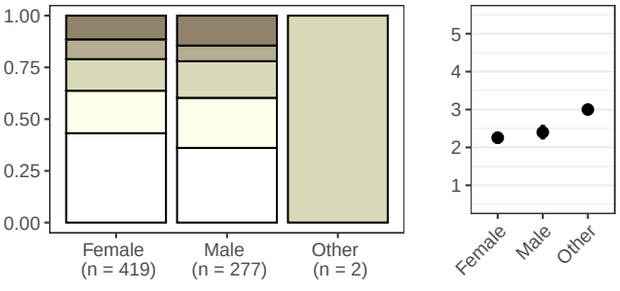
Age



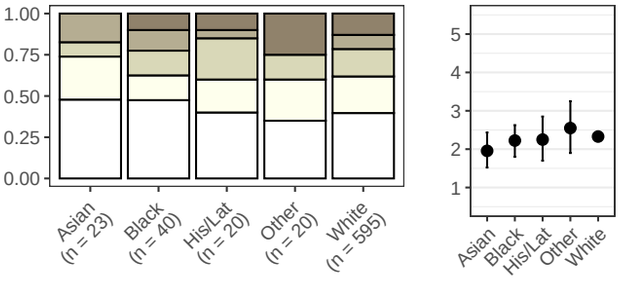
Age groups



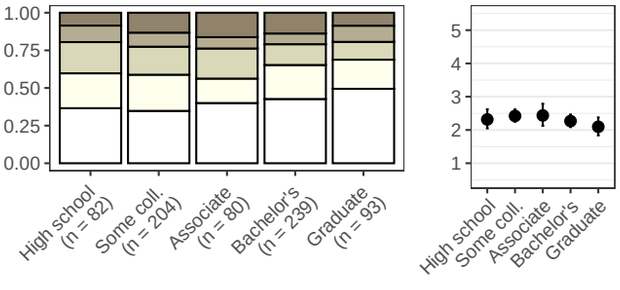
Gender



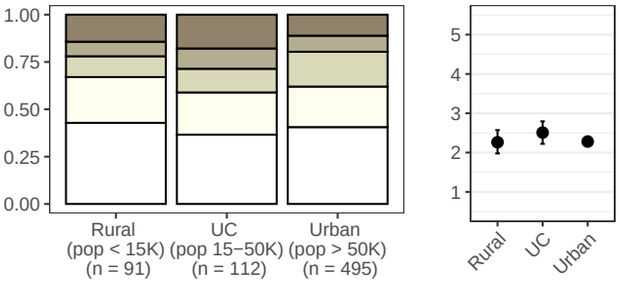
Race



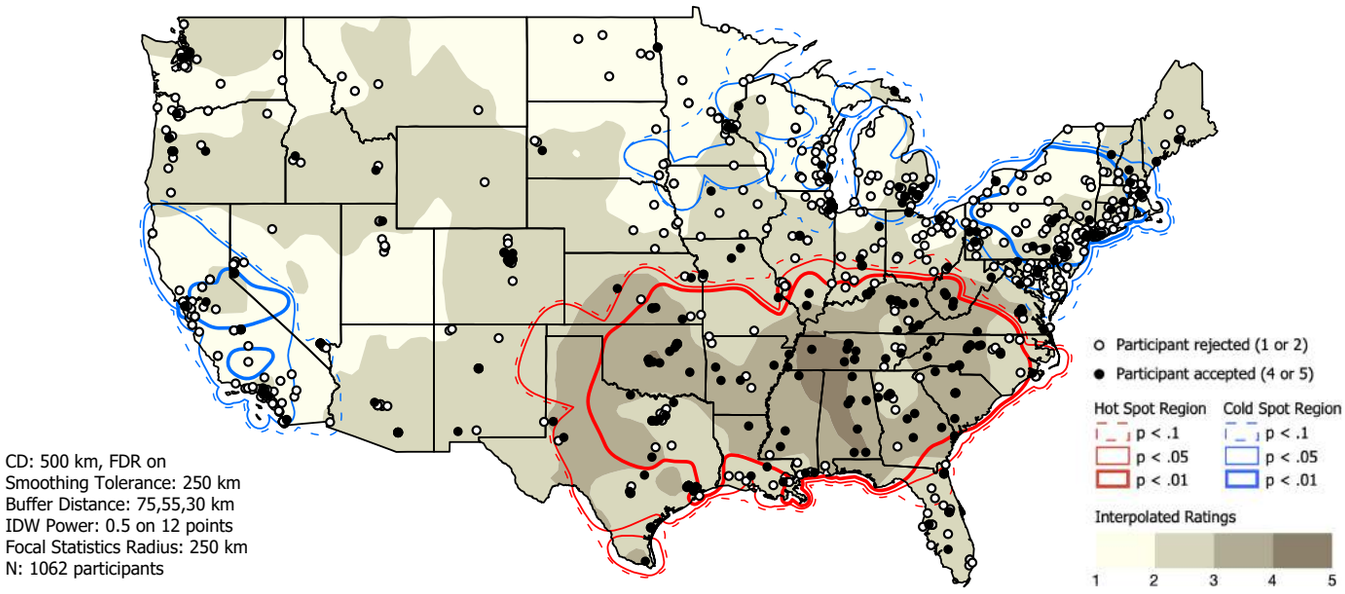
Education



Urban/Rural

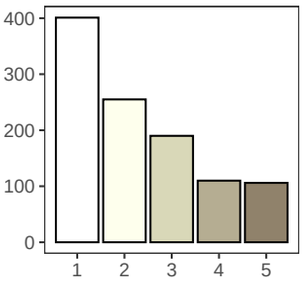


F1069: "Where's us a good place to eat around here?"

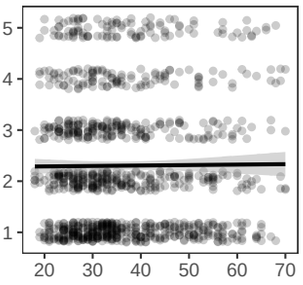


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

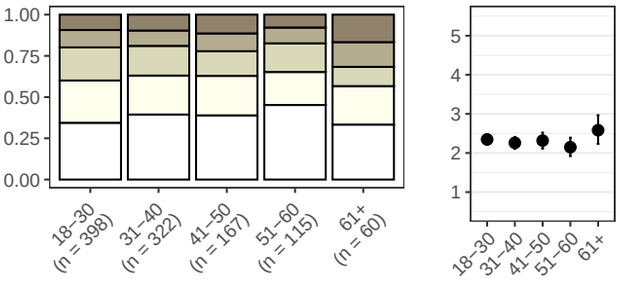
Judgments



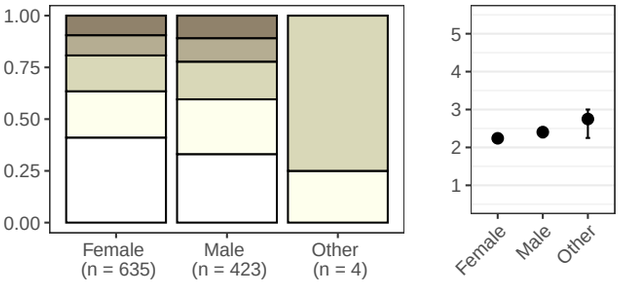
Age



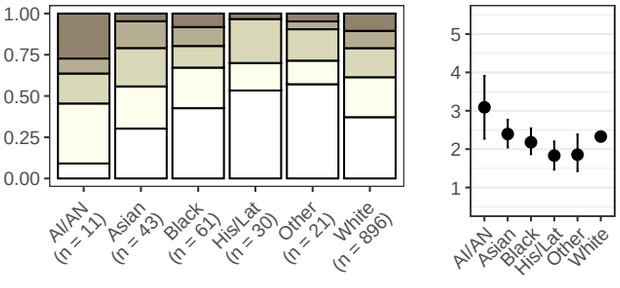
Age groups



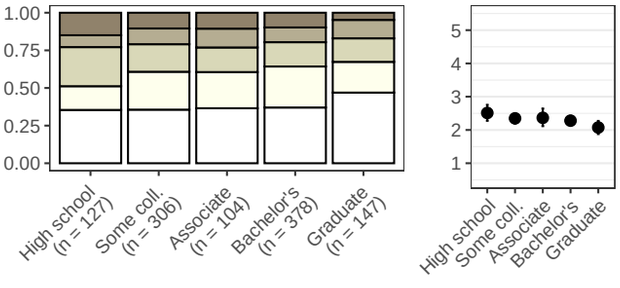
Gender



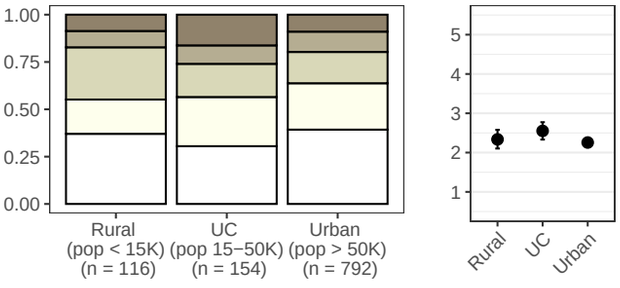
Race



Education



Urban/Rural



2.3 Extended Benefactives

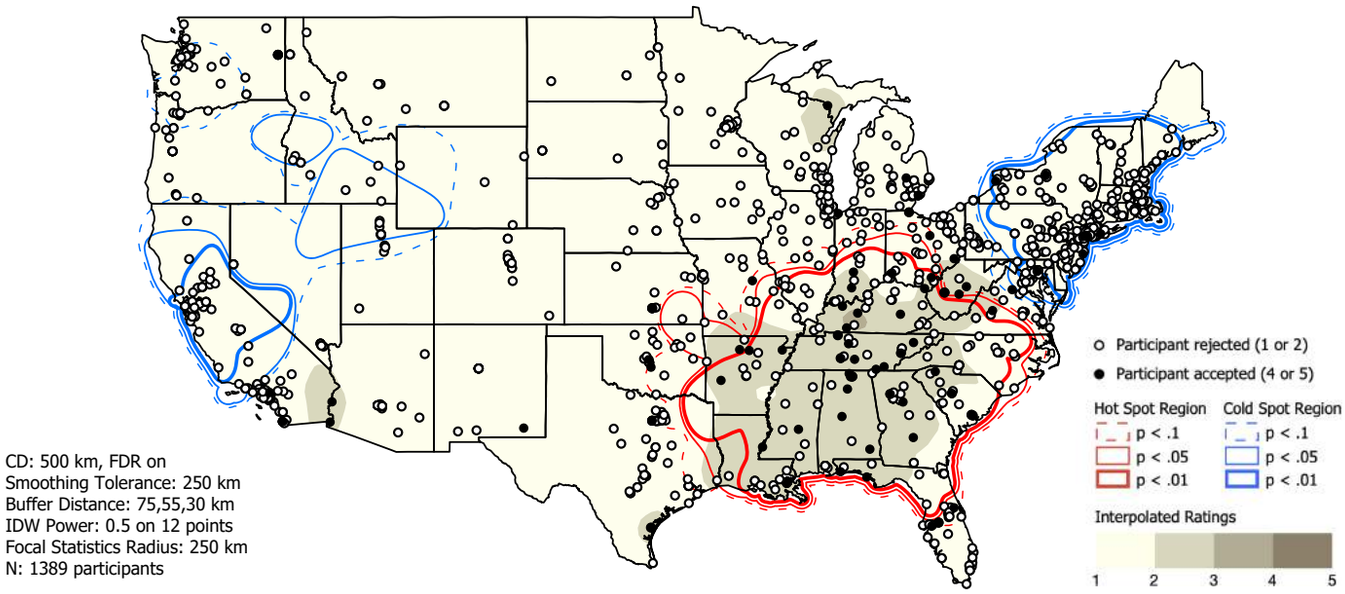
We use the term 'Extended Benefactives' to describe benefactive dative constructions that go beyond what is generally accepted in the most widespread and well-known dialects of English. In all cases, the dative pronoun can be paraphrases with a *for*-phrase in other dialects. For example, *We are looking for him a new home* can be paraphrased as 'We are looking for a new home for him'; *I'll be right back with you some tea* can be paraphrased as 'I'll be right back with you some tea for you'; etc. Three of the sentences that we tested involve a dative that looks like it is embedded inside a prepositional phrase; the other two involve a dative added to the verbs *have* (1102) and *hold* (1175).

(8)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1100	I hunted the hills over for you a squirrel.	1389	1.56	0.91	6, 6b
F1101	We are looking for him a new home.	2196	2.34	1.37	6, 6b, 9
F1102	I have him a new book.	2196	1.89	1.22	6, 6b, 9
F1175	John held Mary the bag.	806	1.25	0.60	9
F1178	I'll be right back with you some tea, okay?	911	2.39	1.47	6b

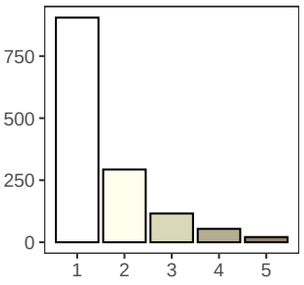
The results for sentences 1102 and 1175 are discussed in more detail in Wood et al. (2020) (along with many of the other dative sentences). Out of these two, 1175 was so widely rejected that it could probably be used as a control sentence, which is consistent with the claim in the literature that it is ungrammatical (Pylkkänen 2002, 2008). However, 1102 was surprisingly acceptable to many in the South. This is different from the other EBs, in that it is not contained within a Prepositional Phrase. It is possible that this means it should be treated separately, although the geographic overlap with other EBs is substantial, and the analysis of Extended Benefactives in Wood and Zanuttini (2018) would make sense of why they pattern together. For this reason, we include it in the Extended Benfactive category, rather than give it its own category.

F1100: "I hunted the hills over for you a squirrel."

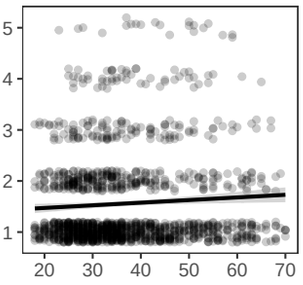


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

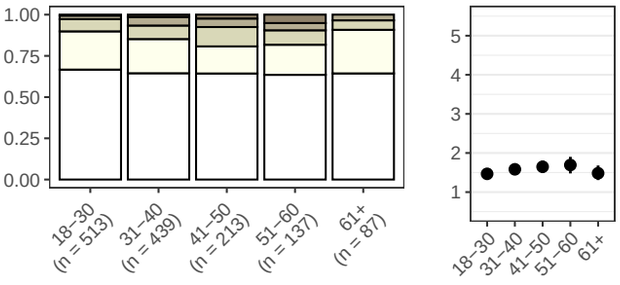
Judgments



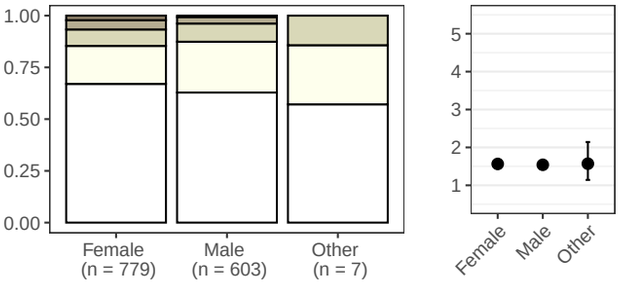
Age



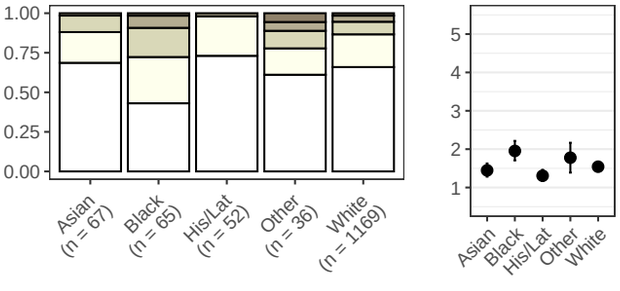
Age groups



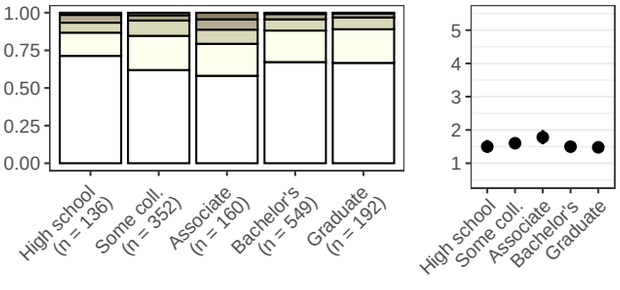
Gender



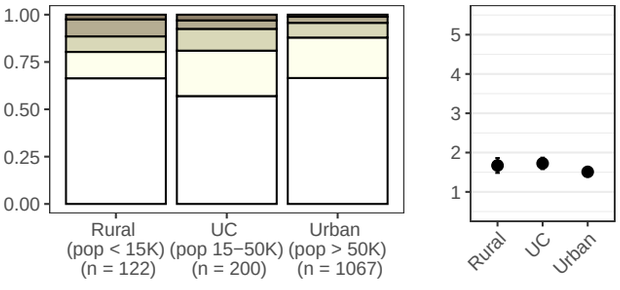
Race



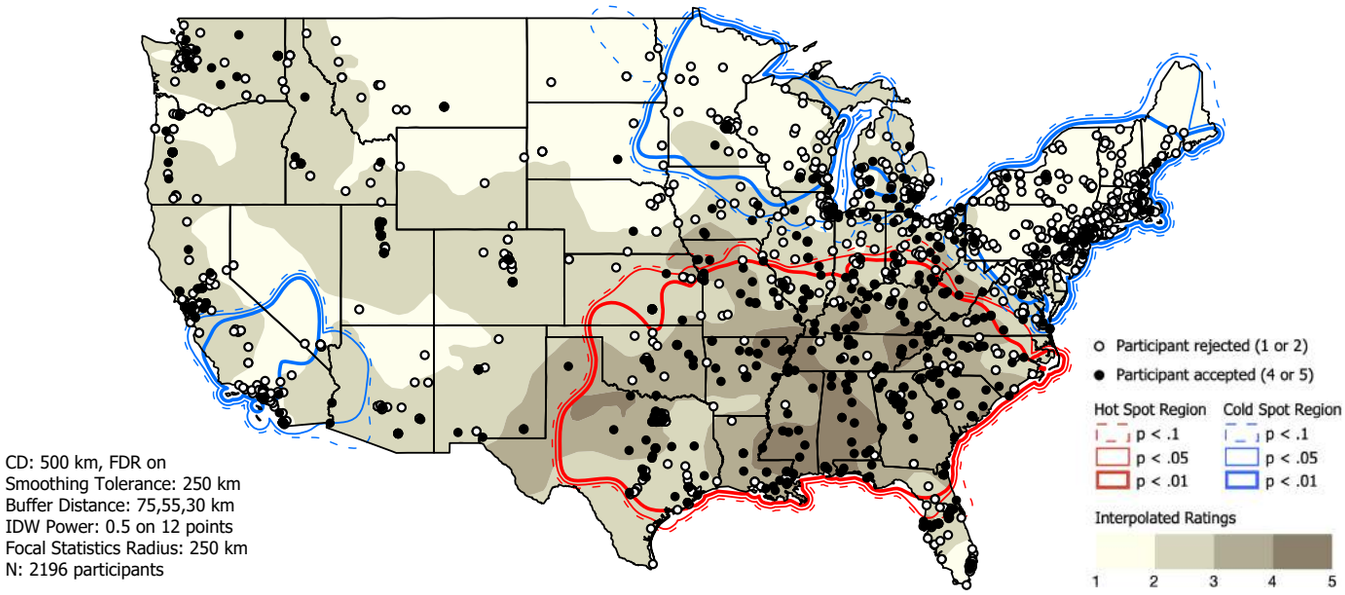
Education



Urban/Rural

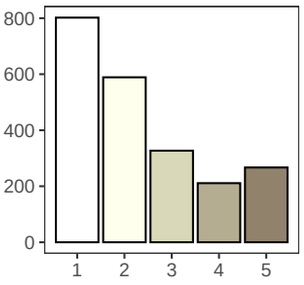


F1101: "We are looking for him a new home."

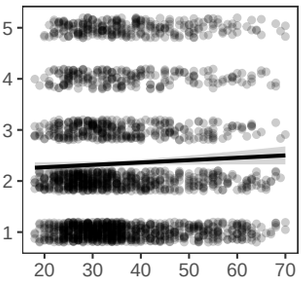


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 2196 participants

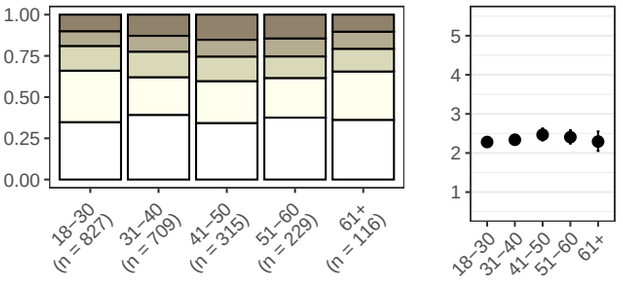
Judgments



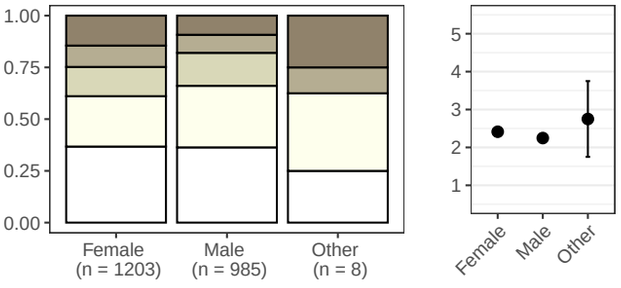
Age



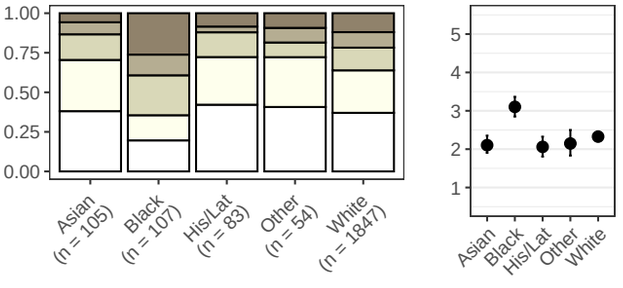
Age groups



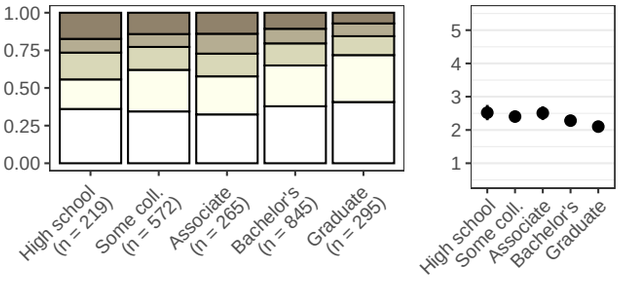
Gender



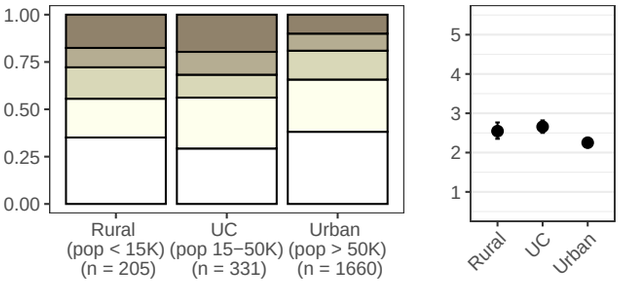
Race



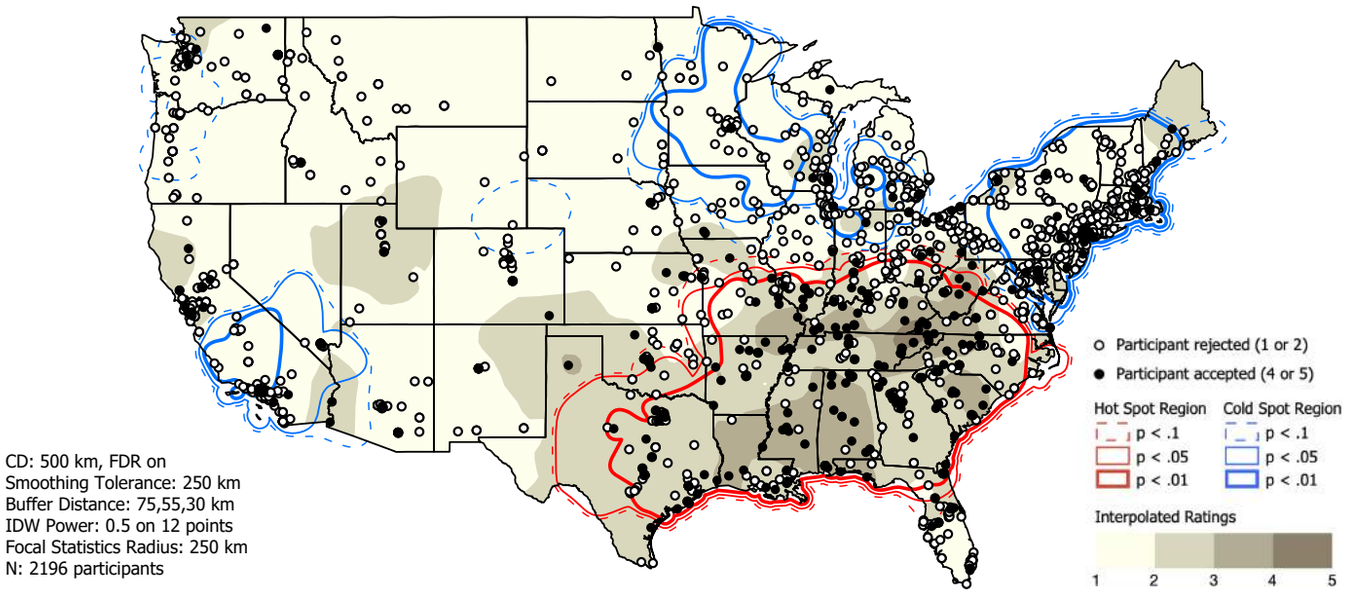
Education



Urban/Rural

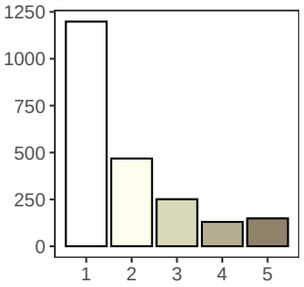


F1102: "I have him a new book."

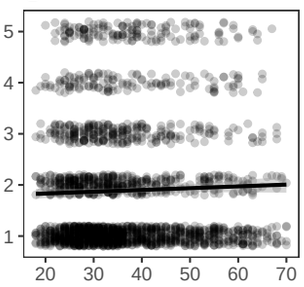


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Focal Statistics Radius: 250 km
N: 2196 participants

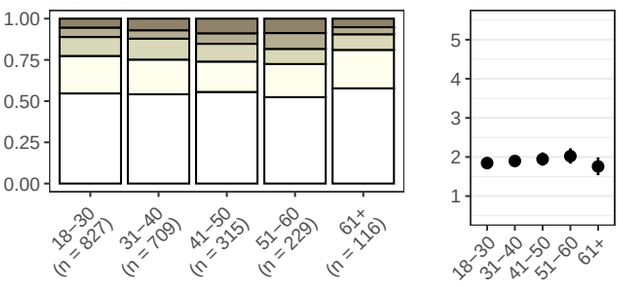
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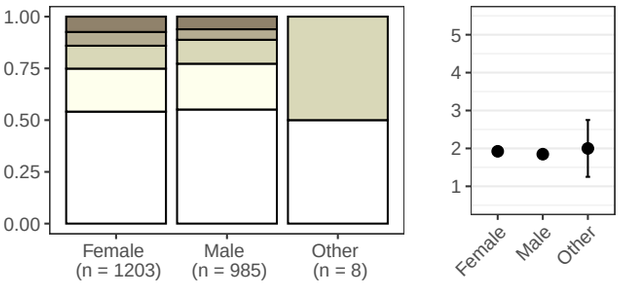
Age



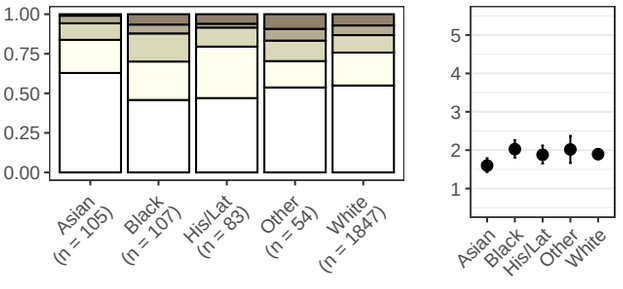
Age groups



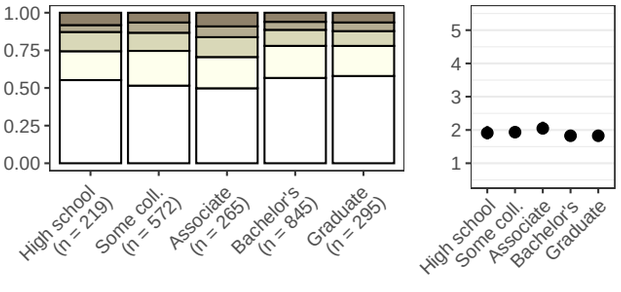
Gender



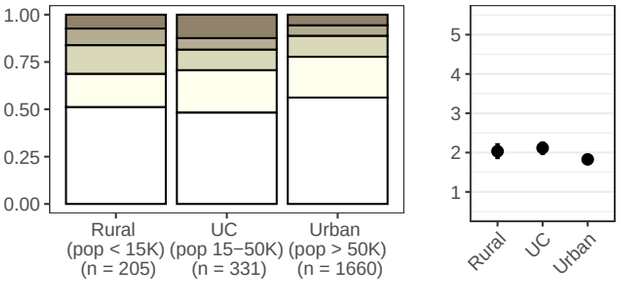
Race



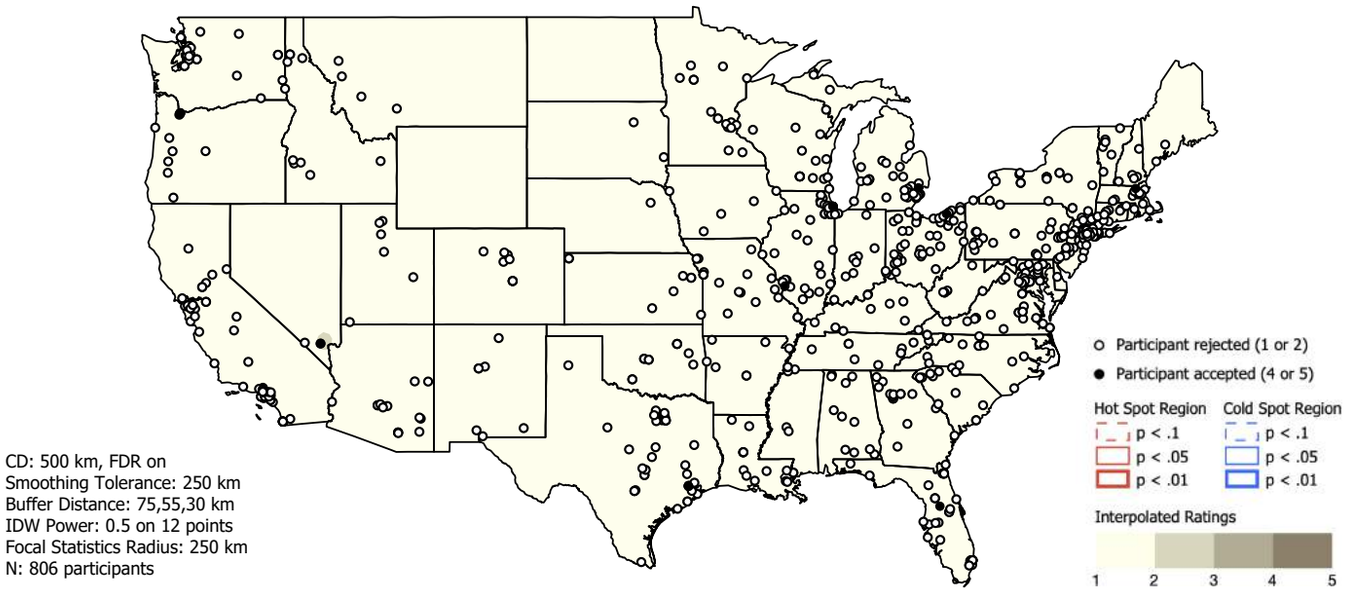
Education



Urban/Rural

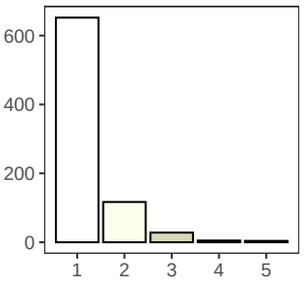


F1175: "John held Mary the bag."

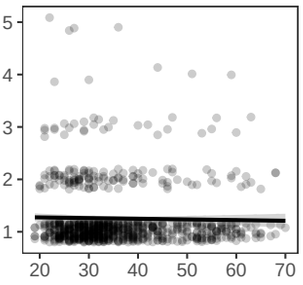


CD: 500 km, FDR on
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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 806 participants

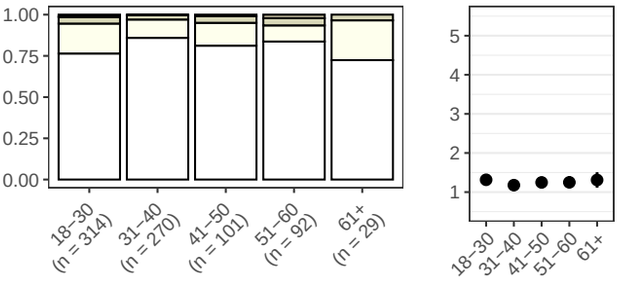
Judgments



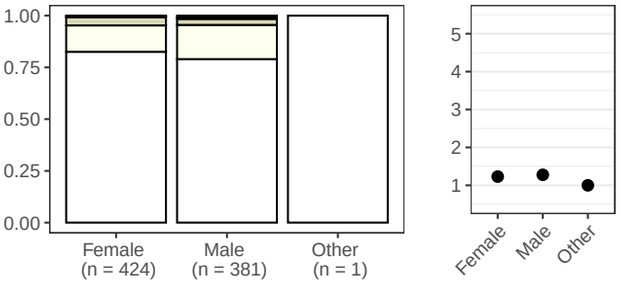
Age



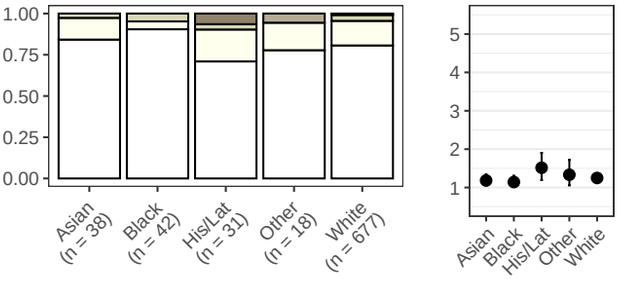
Age groups



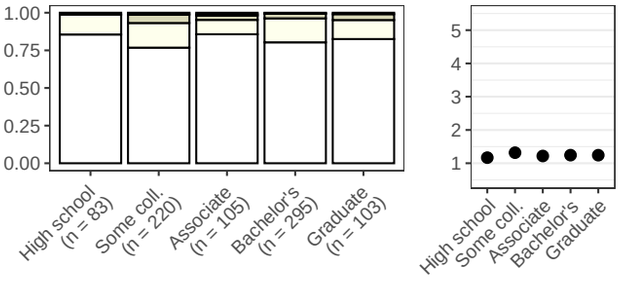
Gender



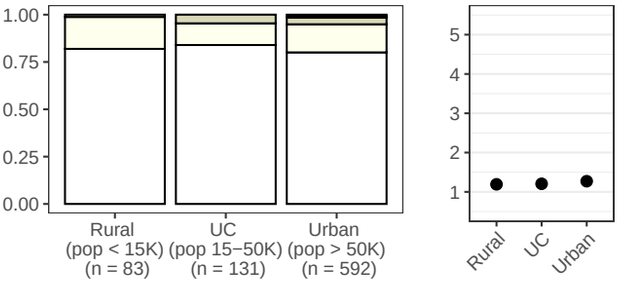
Race



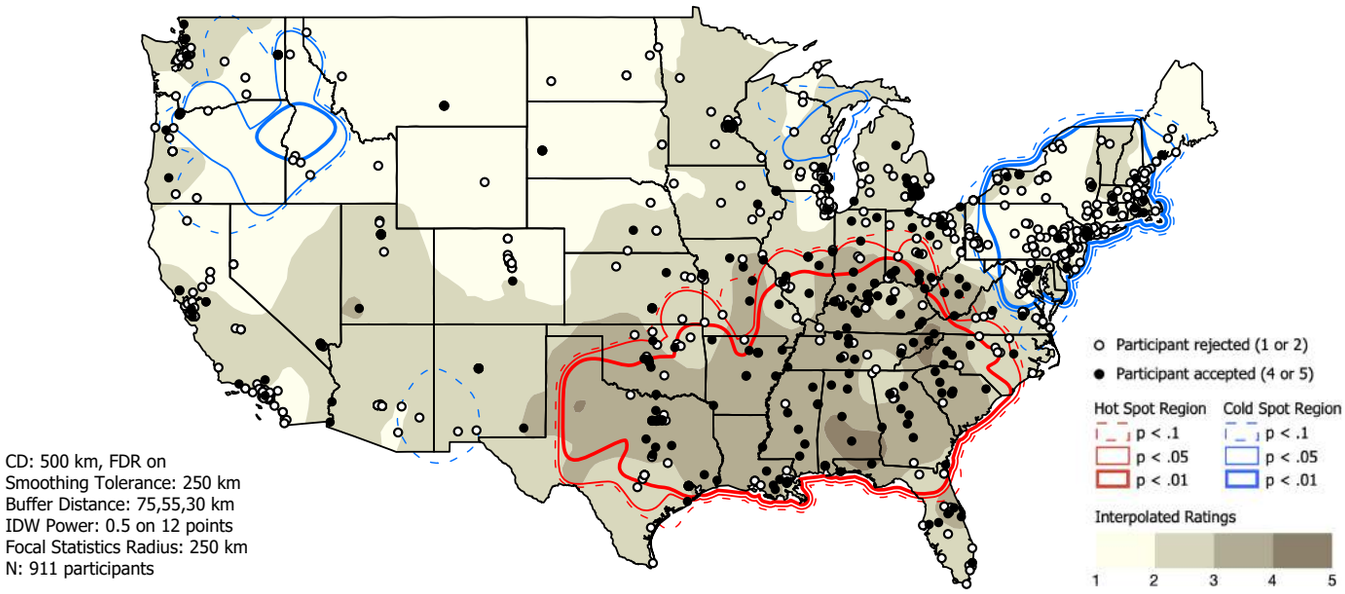
Education



Urban/Rural

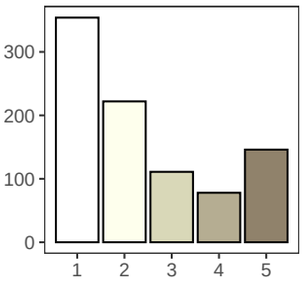


F1178: "I'll be right back with you some tea, okay?"

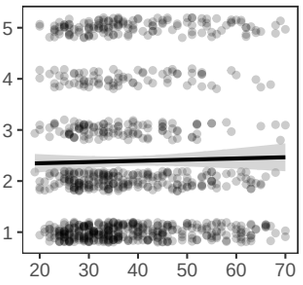


CD: 500 km, FDR on
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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 911 participants

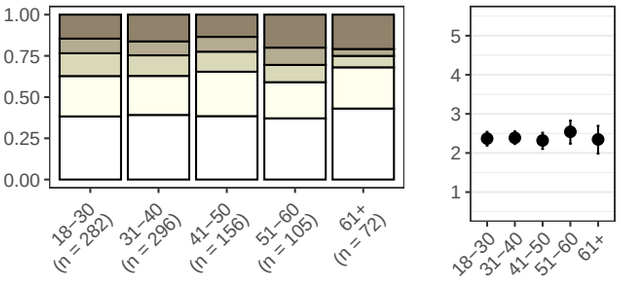
Judgments



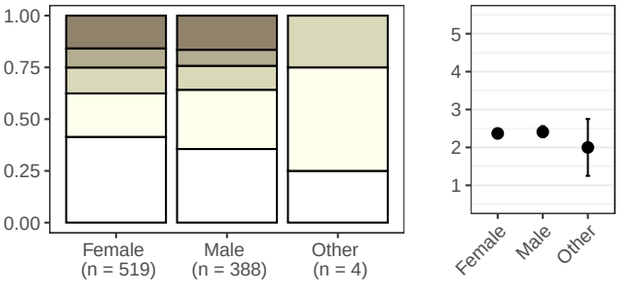
Age



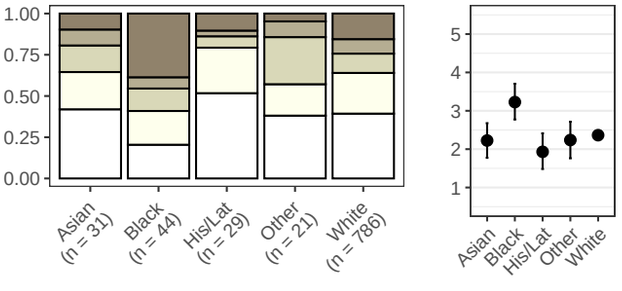
Age groups



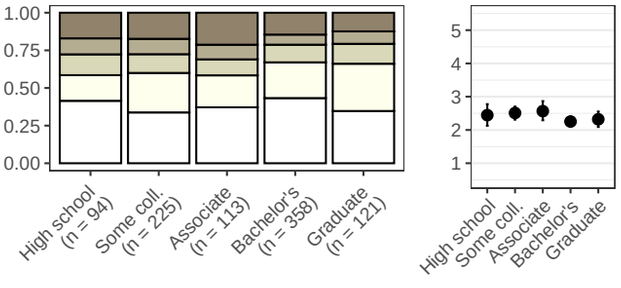
Gender



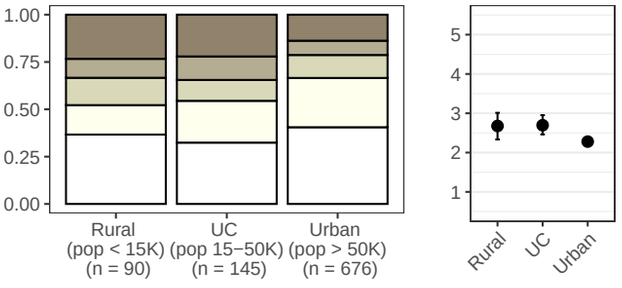
Race



Education



Urban/Rural



3 *Have Yet To*

After finding some initially interesting results from pilot sentences, the *have yet to* (HYT) construction became another "primary" research topic on some of our surveys. Some of the results of these survey have been published in Tyler and Wood (2019) and Wood (2019b), although there are a number of things that remain to be explored. The following subsections divide the data into subsets, based on the aspect of grammar that was being investigated.

3.1 *Have Yet To*: *Do*-support vs. Aux-*have*

One issue in the investigations of the HYT construction is whether *have* is used as an auxiliary or a main verb. The following sentences probe this question, where the *do*-support sentences have been taken to indicate a main verb status for *have*.

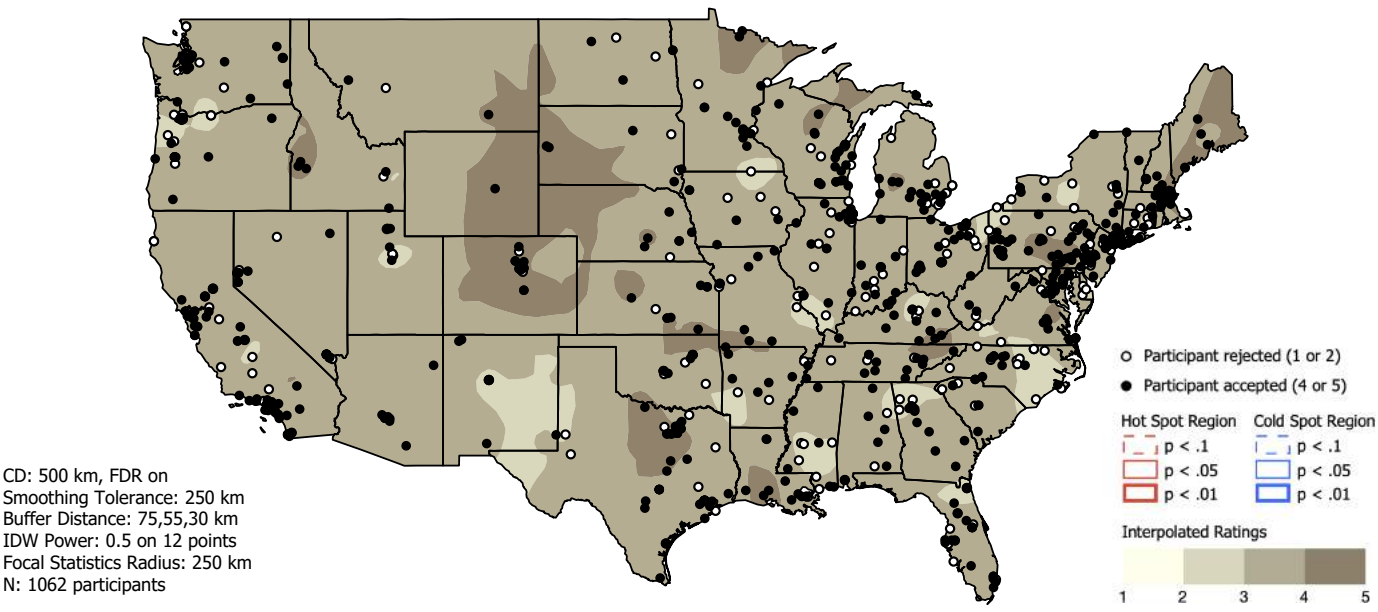
(9)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1042	He has yet to finish, hasn't he?	1062	3.51	1.32	5, 5b
F1063	Have you yet to confirm it?	1063	4.01	1.18	5, 5b
F1064	Haven't you yet to confirm it?	1062	2.76	1.34	5, 5b
F1083	John has yet to win the hearts of his classmates, and Bill has too.	1388	2.81	1.38	6, 6b
F1149	Oh, she has yet to finish, has she?	539	3.58	1.25	8
F1152	Has John yet to win the hearts of his classmates?	539	3.35	1.36	8
F1154	Hasn't John yet to win the hearts of his classmates?	539	2.49	1.26	8
F1156	What have you yet to eat?	539	2.31	1.21	8
F1041	He has yet to finish, doesn't he?	1063	2.49	1.47	5, 5b
F1084	John has yet to win the hearts of his classmates, and Bill does too.	1388	2.65	1.45	6, 6b
F1148	Oh, she has yet to finish, does she?	539	2.34	1.44	8
F1151	Does John have yet to win the hearts of his classmates?	539	2.68	1.42	8
F1153	Doesn't John have yet to win the hearts of his classmates?	539	2.33	1.35	8
F1155	What do you have yet to eat?	539	2.30	1.29	8

Wood (2019b) found that when averaged together, the *do*-support sentences are most acceptable in an area roughly identified as the Midlands. The aux-*have* sentences vary less, and are more widely accepted across speakers.

With FDR Correction

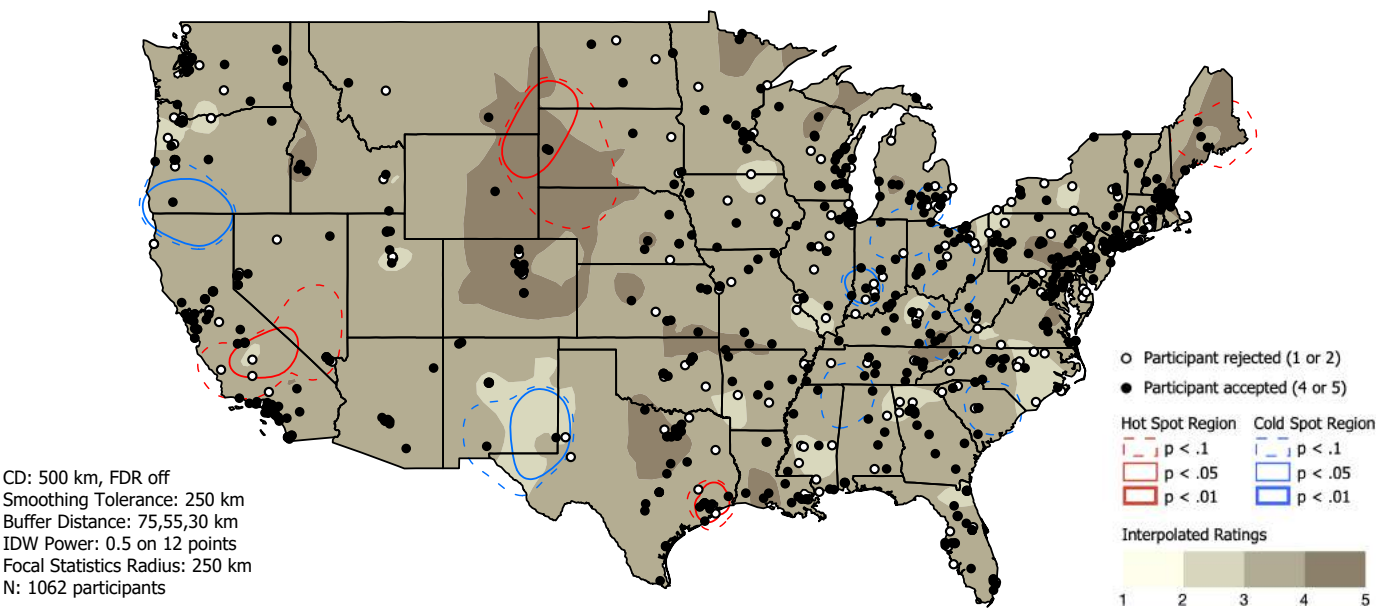
F1042: "He has yet to finish, hasn't he? "



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

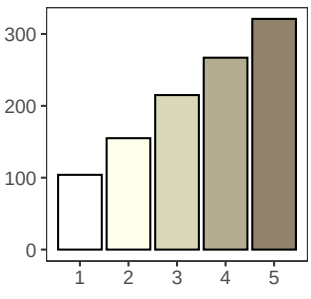
Without FDR Correction: Interpret with caution

F1042: "He has yet to finish, hasn't he? "

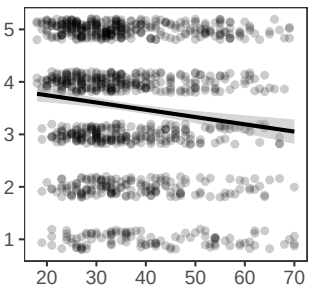


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
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Focal Statistics Radius: 250 km
N: 1062 participants

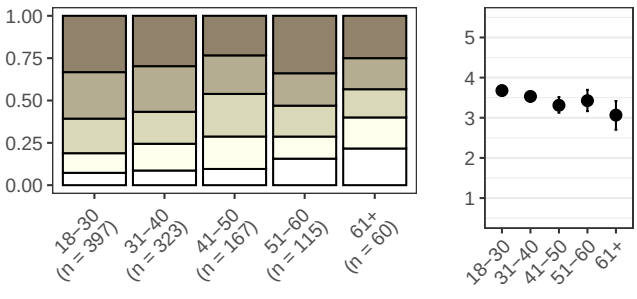
Judgments



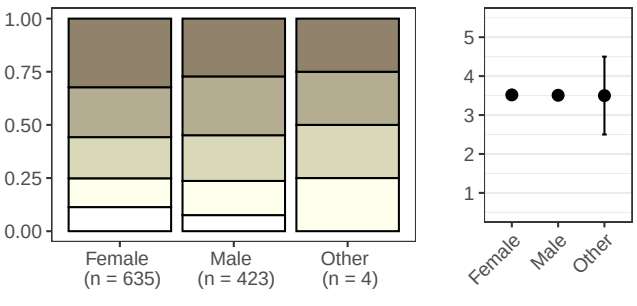
Age



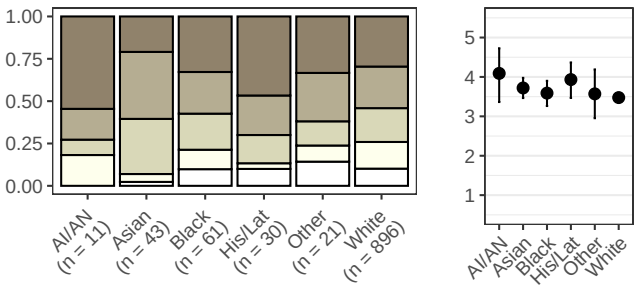
Age groups



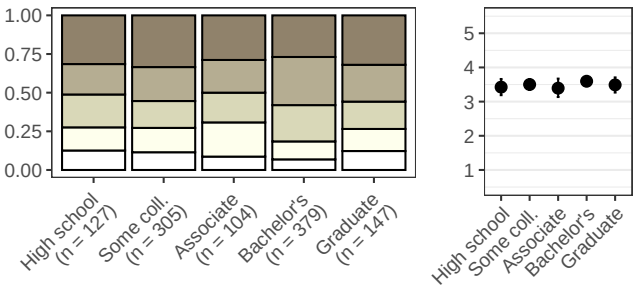
Gender



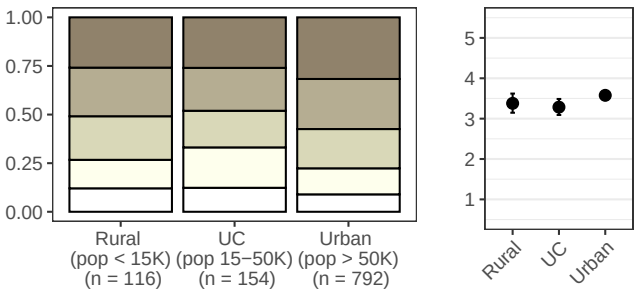
Race



Education

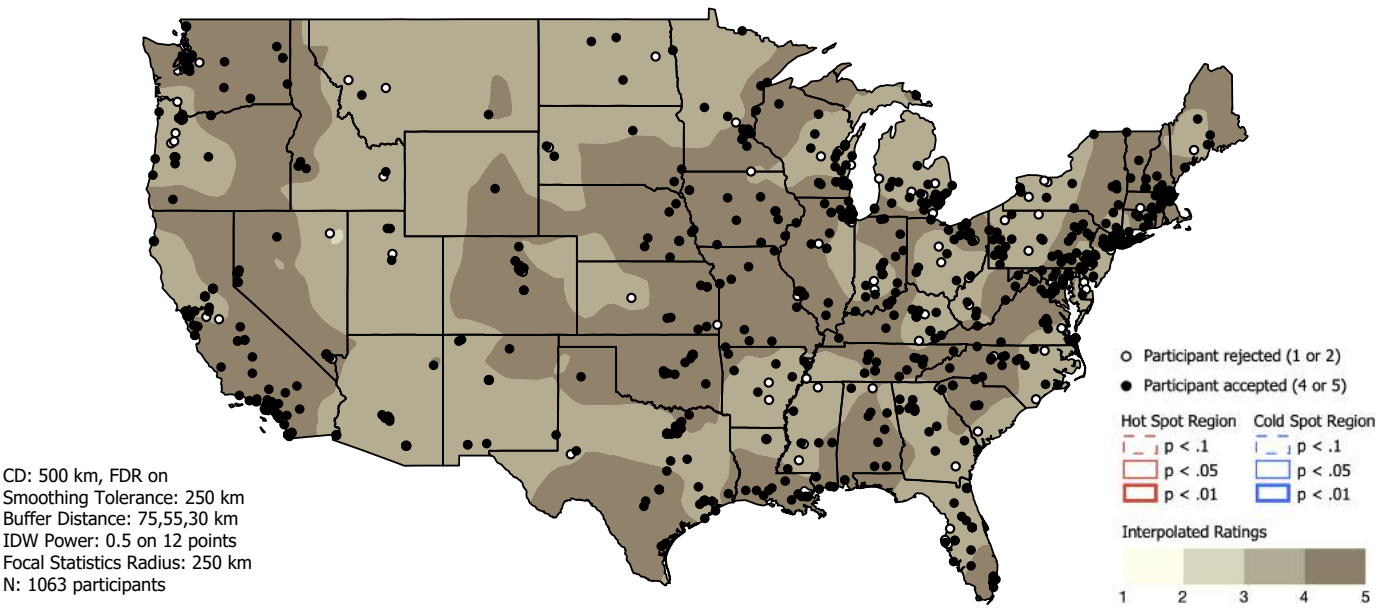


Urban/Rural



With FDR Correction

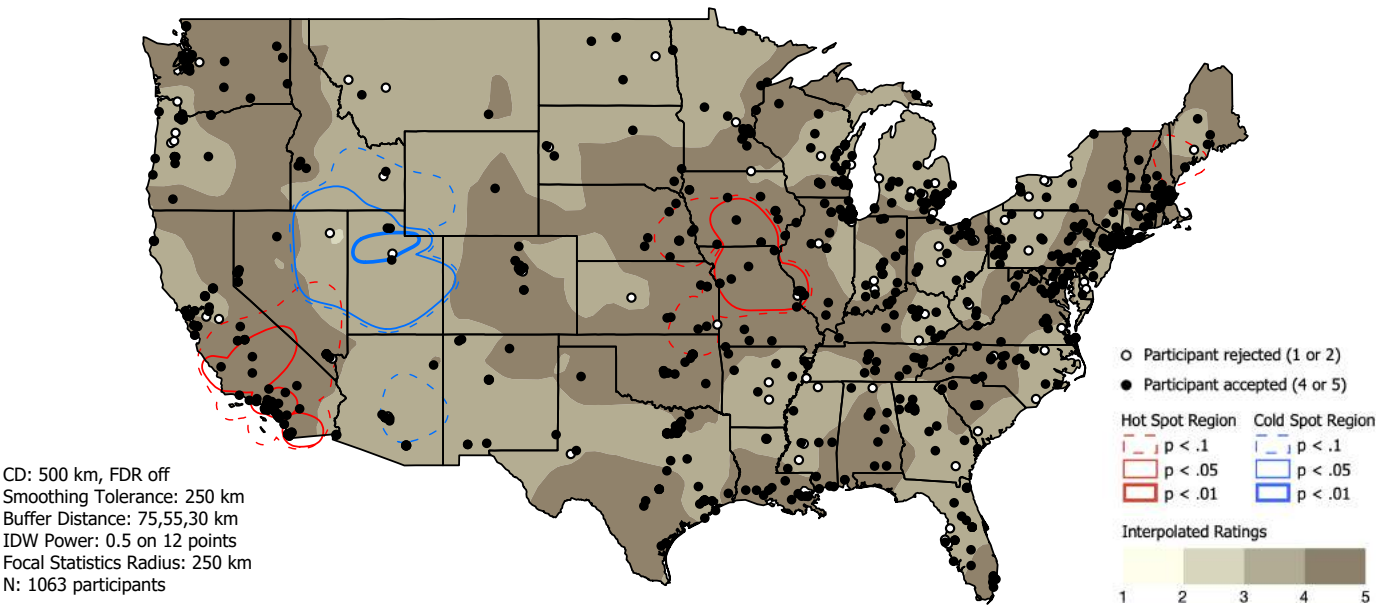
F1063: "Have you yet to confirm it?"



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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

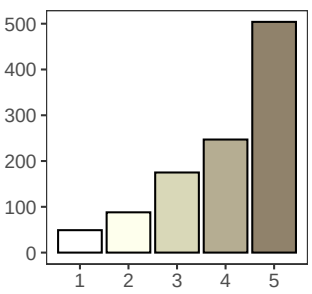
Without FDR Correction: Interpret with caution

F1063: "Have you yet to confirm it?"

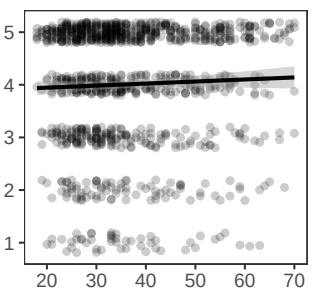


CD: 500 km, FDR off
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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

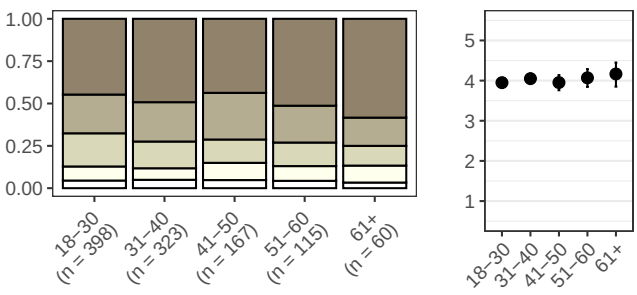
Judgments



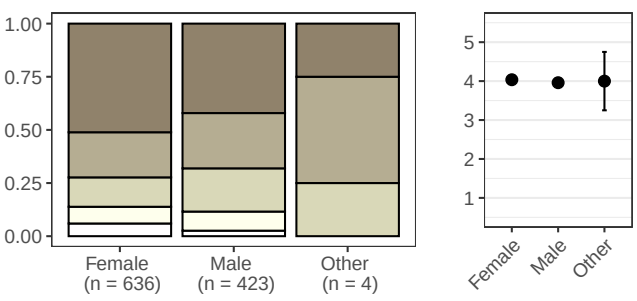
Age



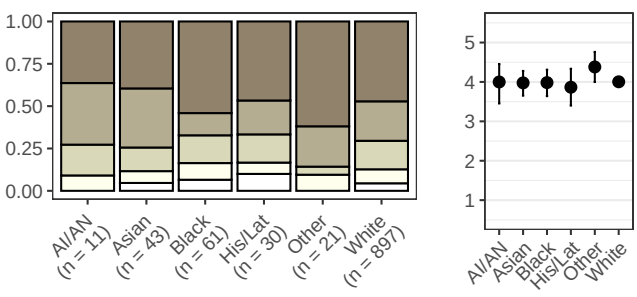
Age groups



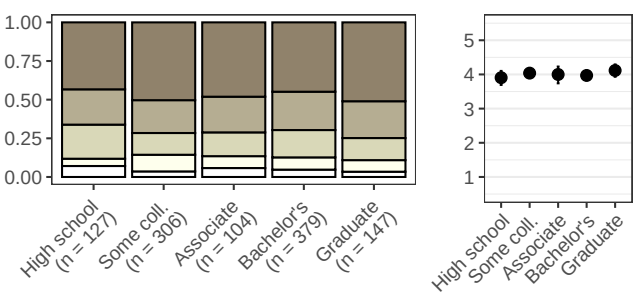
Gender



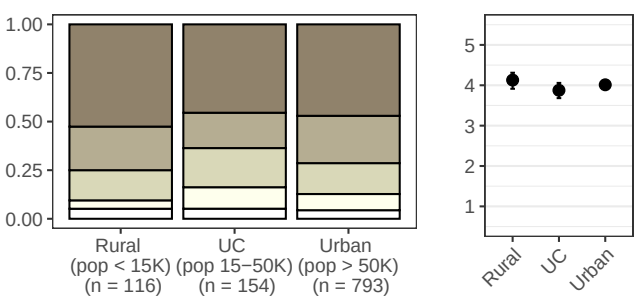
Race



Education

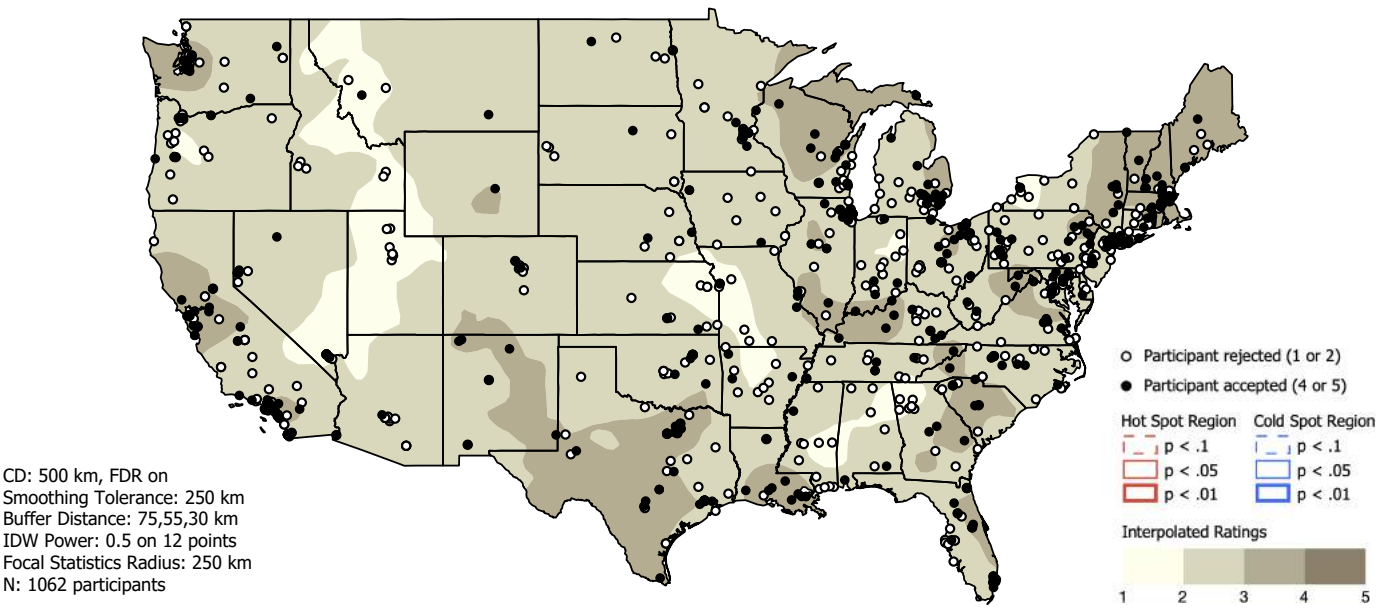


Urban/Rural



With FDR Correction

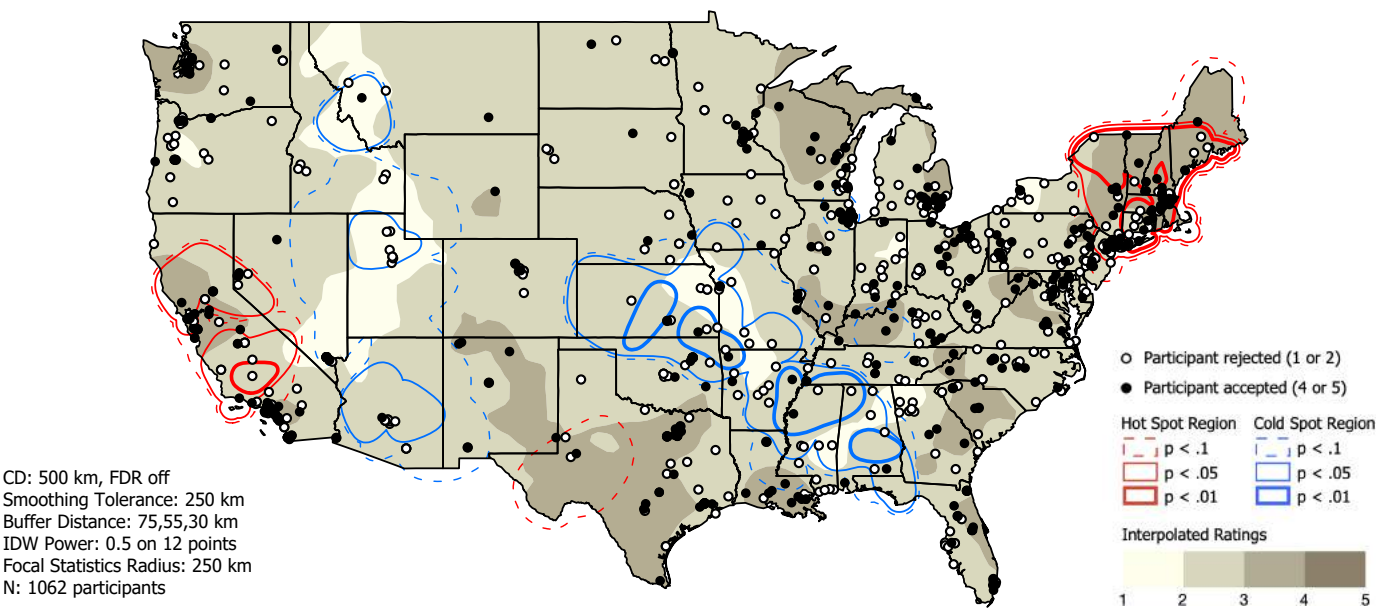
F1064: "Haven't you yet to confirm it?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

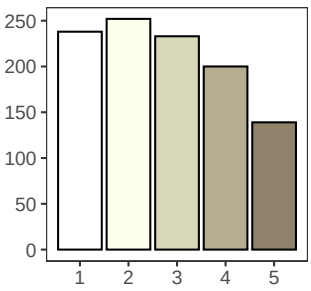
Without FDR Correction: Interpret with caution

F1064: "Haven't you yet to confirm it?"

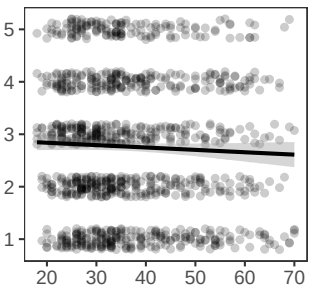


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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

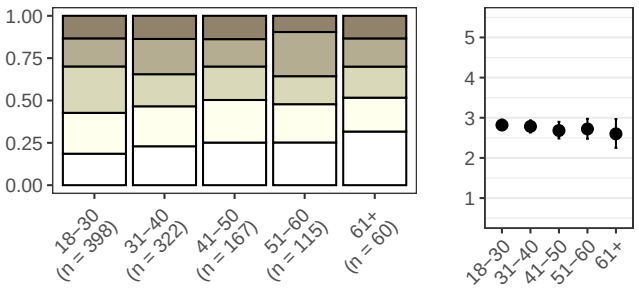
Judgments



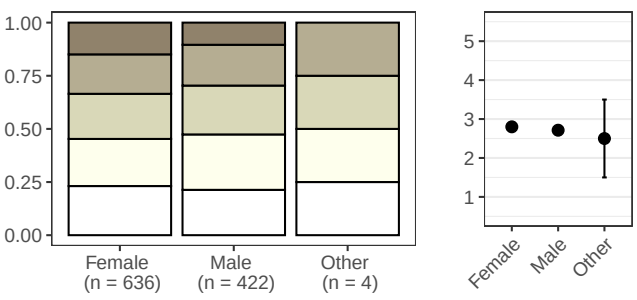
Age



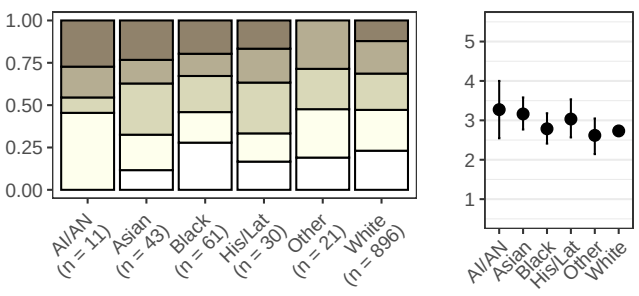
Age groups



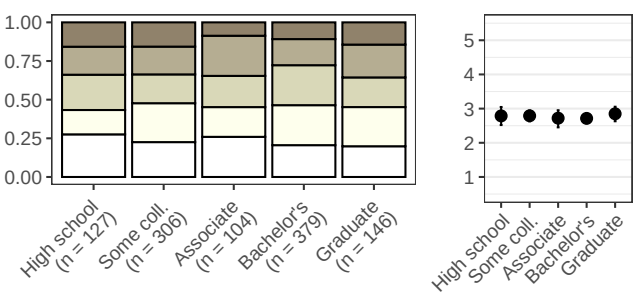
Gender



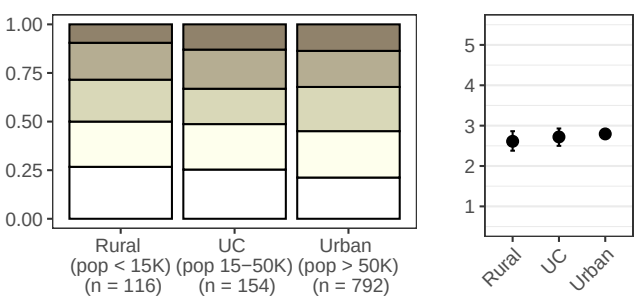
Race



Education

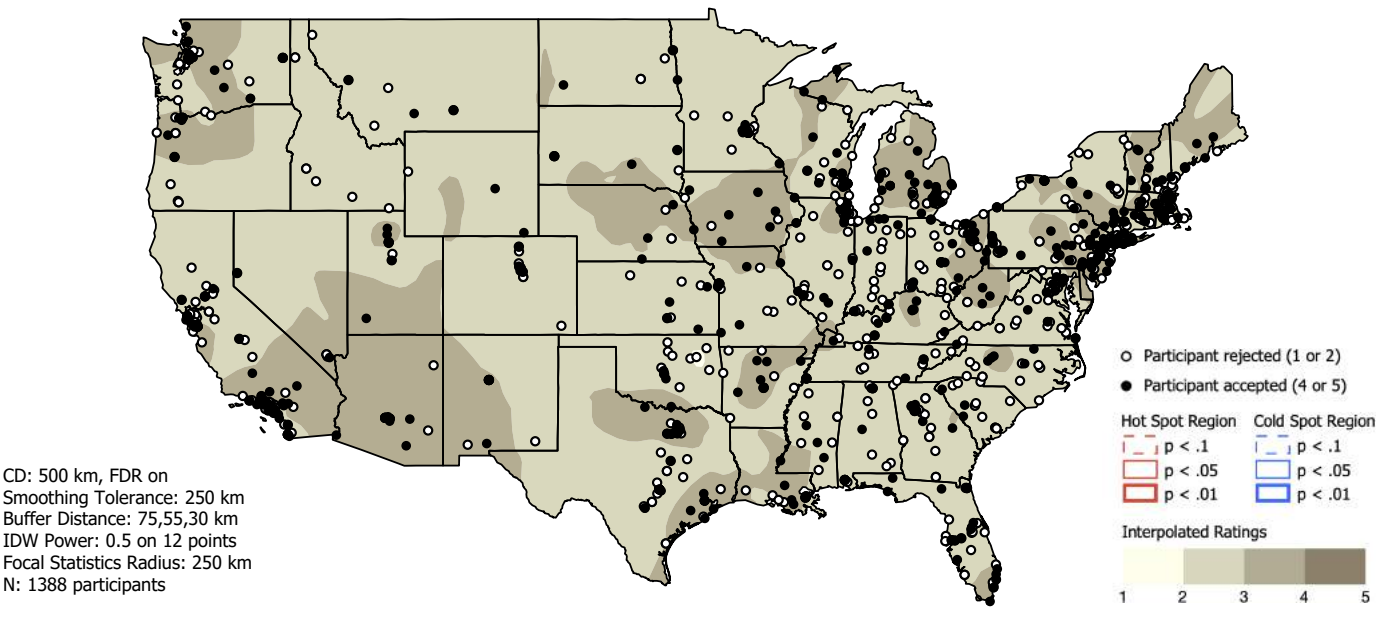


Urban/Rural



With FDR Correction

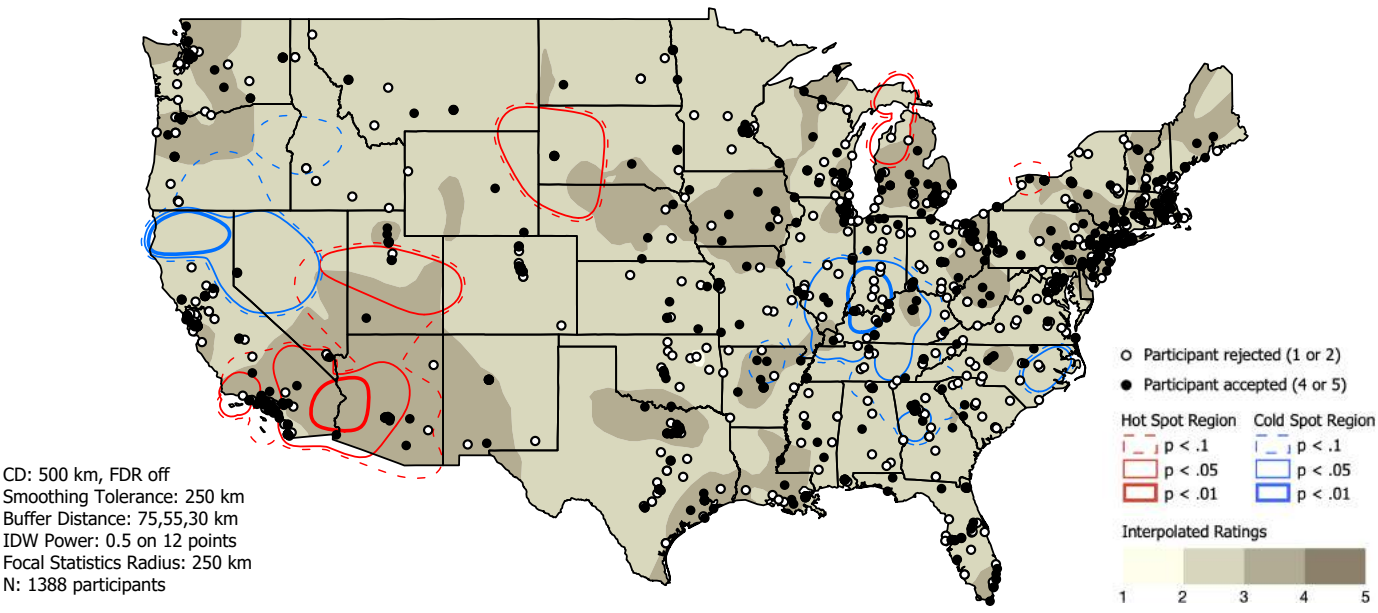
F1083: "John has yet to win the hearts of his classmates, and Bill has too"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1388 participants

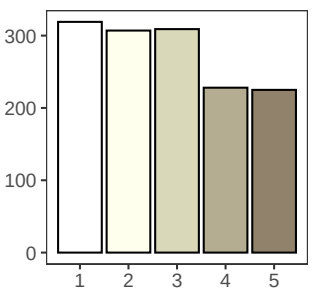
Without FDR Correction: Interpret with caution

F1083: "John has yet to win the hearts of his classmates, and Bill has too"

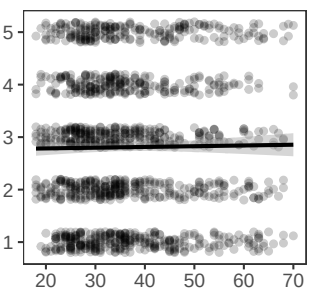


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1388 participants

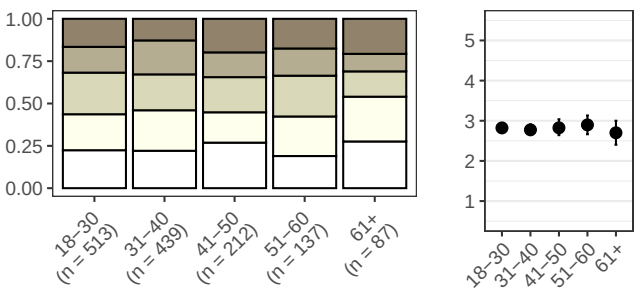
Judgments



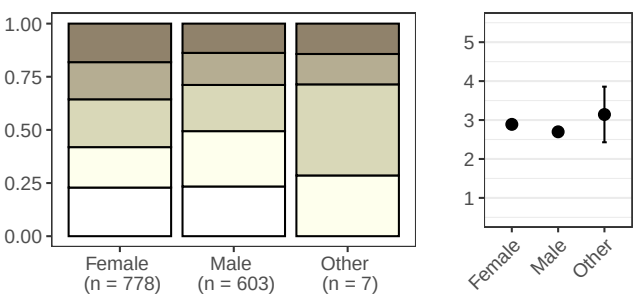
Age



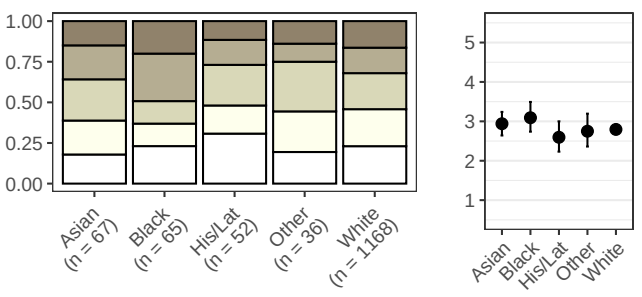
Age groups



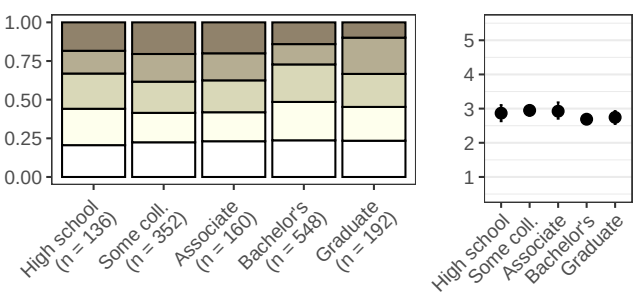
Gender



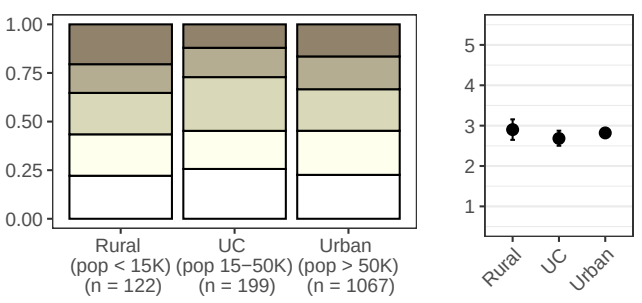
Race



Education

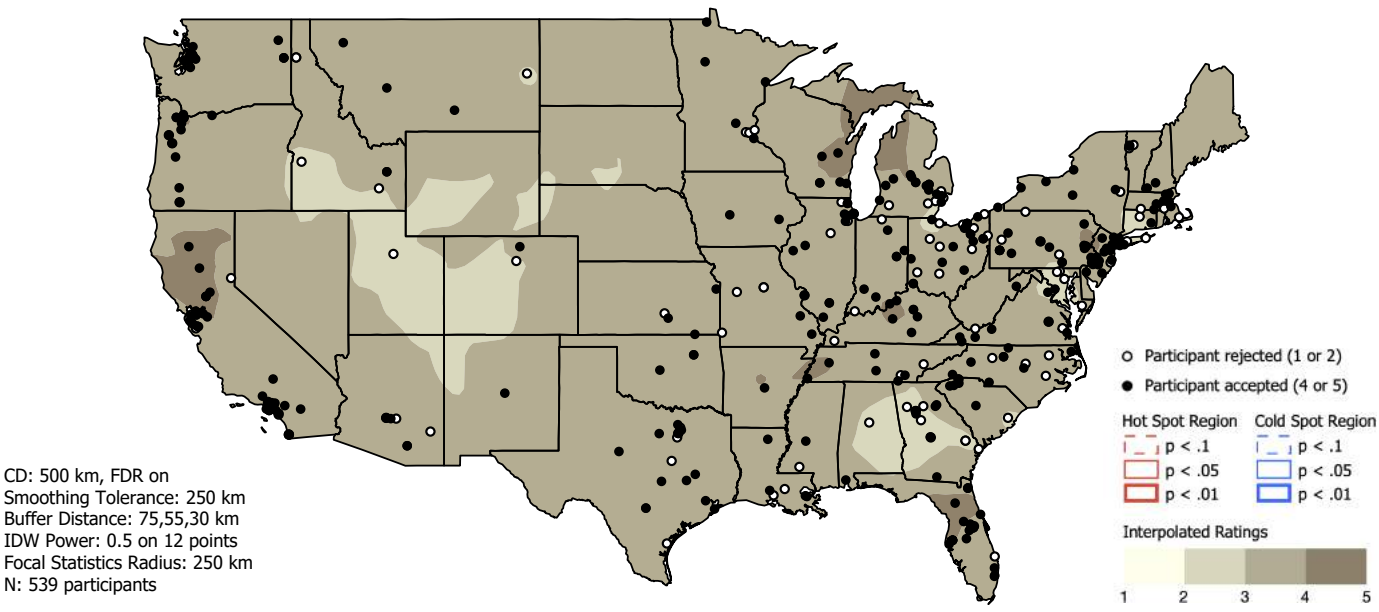


Urban/Rural



With FDR Correction

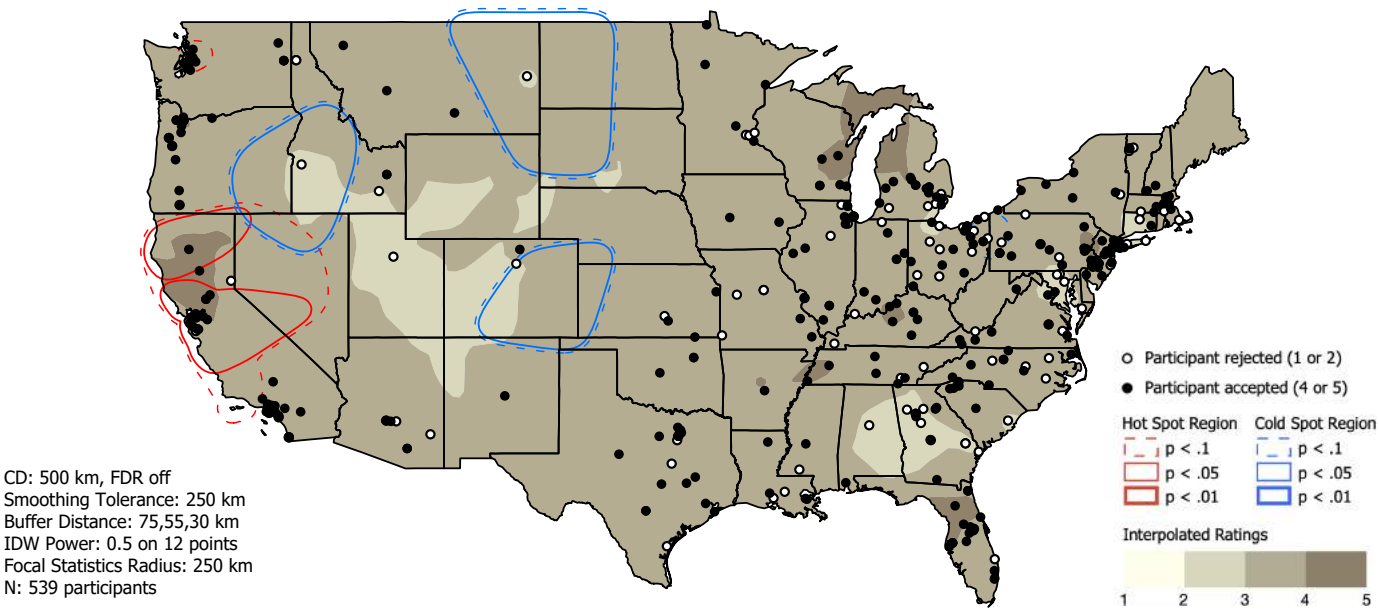
F1149: "Oh, she has yet to finish, has she?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

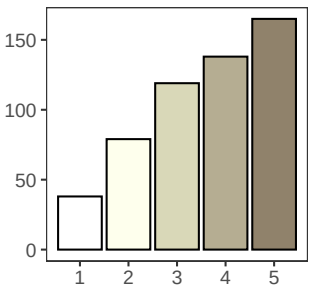
Without FDR Correction: Interpret with caution

F1149: "Oh, she has yet to finish, has she?"

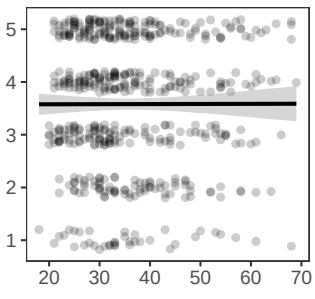


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

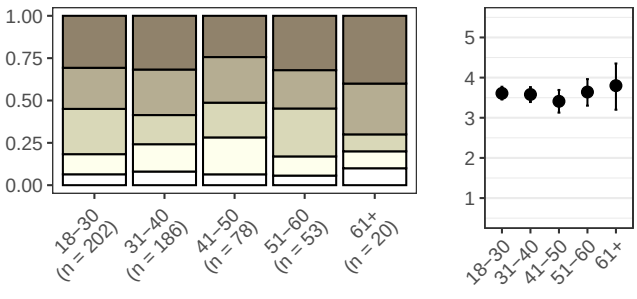
Judgments



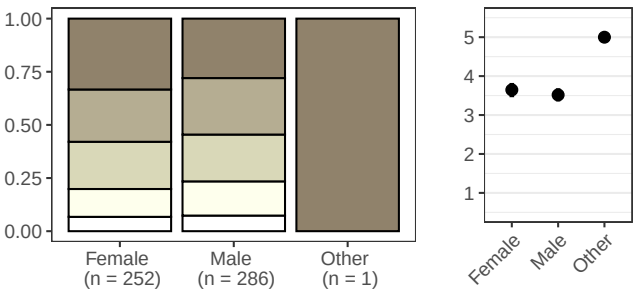
Age



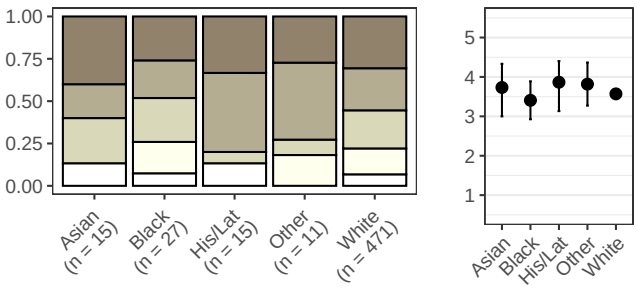
Age groups



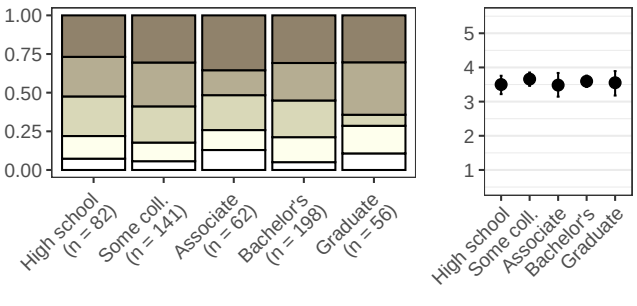
Gender



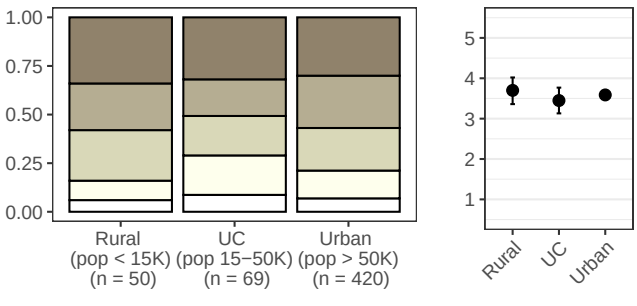
Race



Education

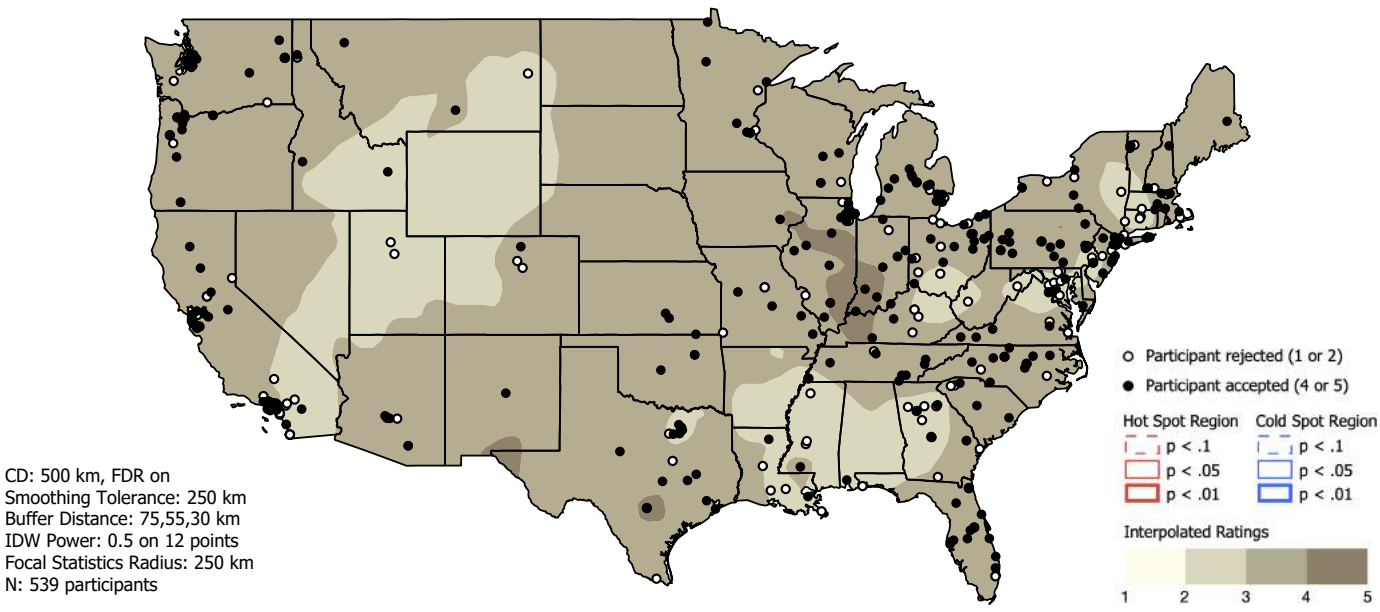


Urban/Rural



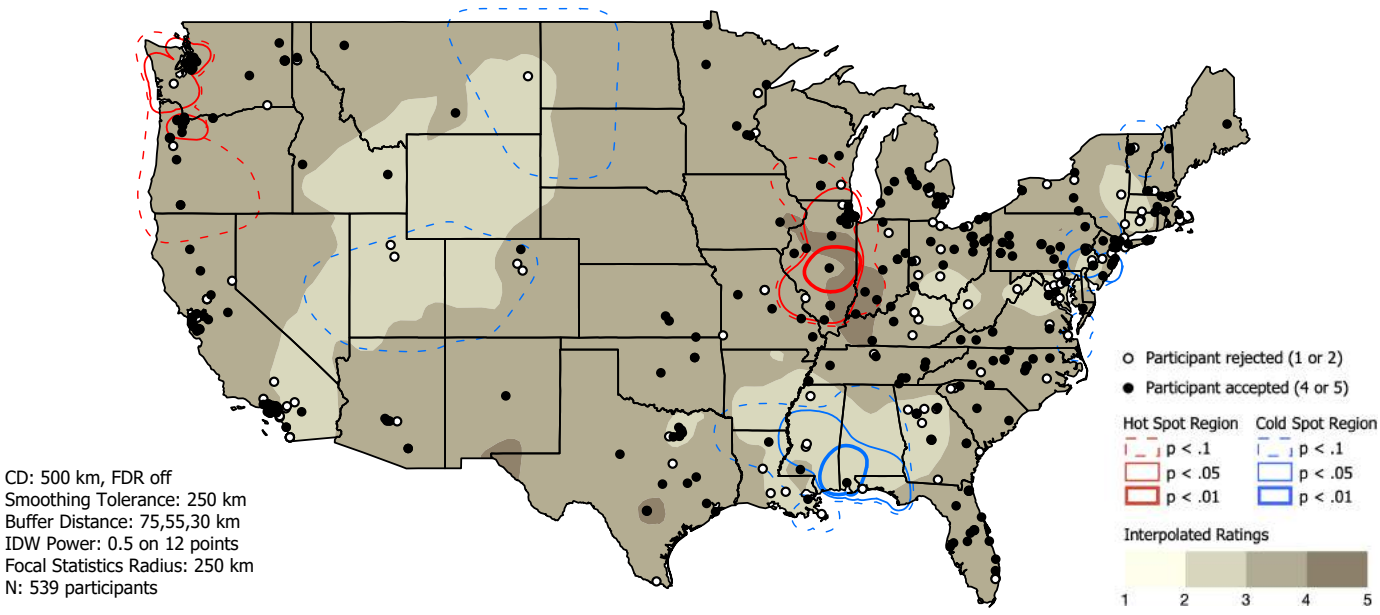
With FDR Correction

F1152: "Has John yet to win the hearts of his classmates?"

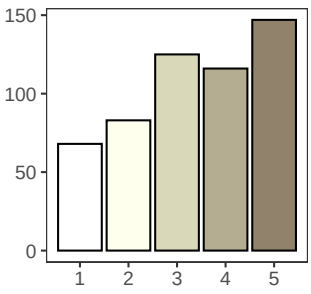


Without FDR Correction: Interpret with caution

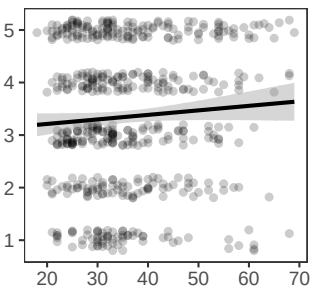
F1152: "Has John yet to win the hearts of his classmates?"



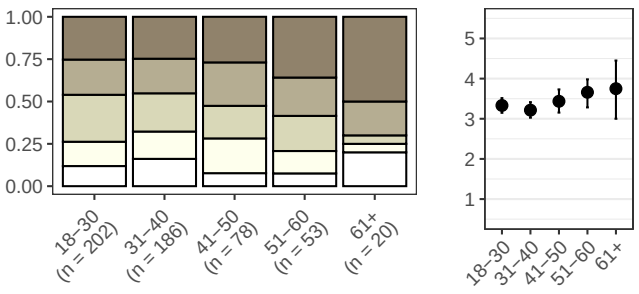
Judgments



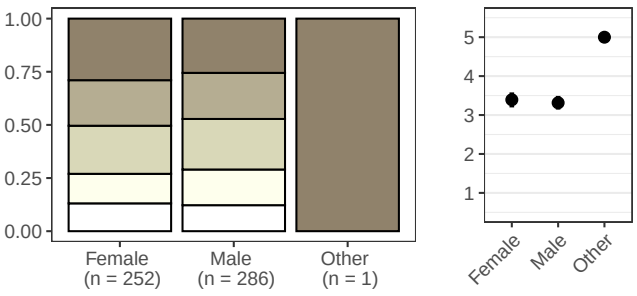
Age



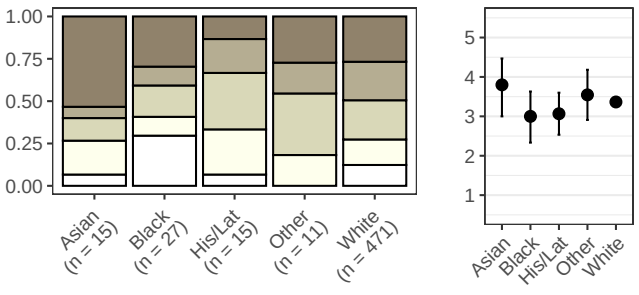
Age groups



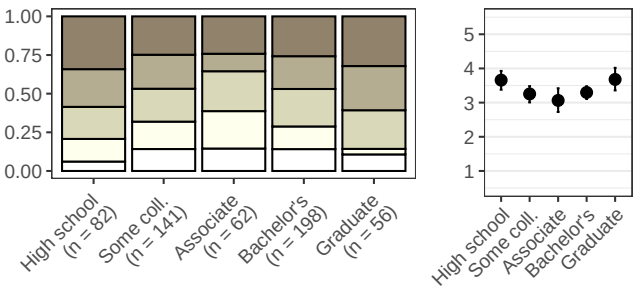
Gender



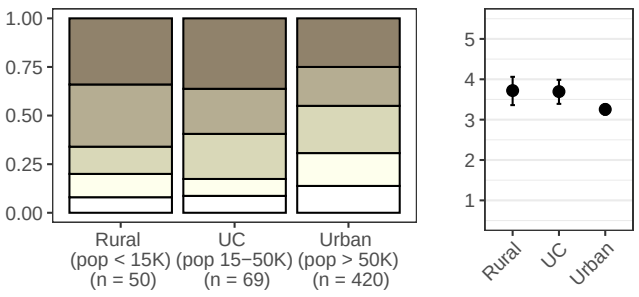
Race



Education

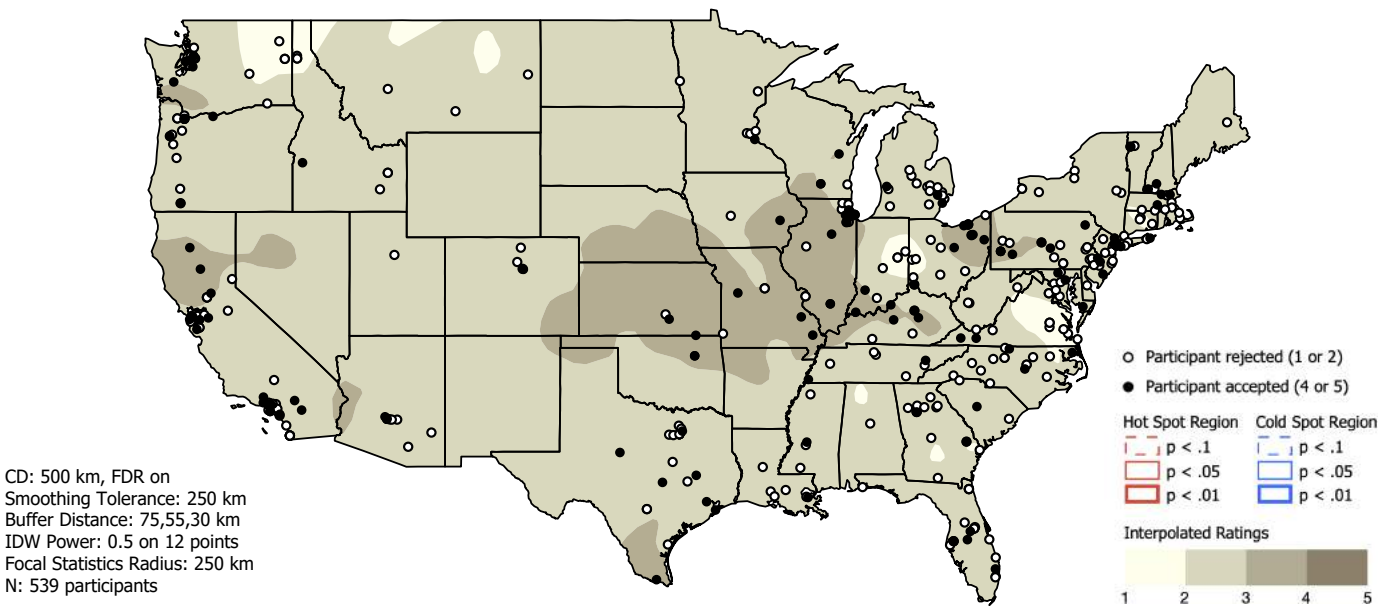


Urban/Rural



With FDR Correction

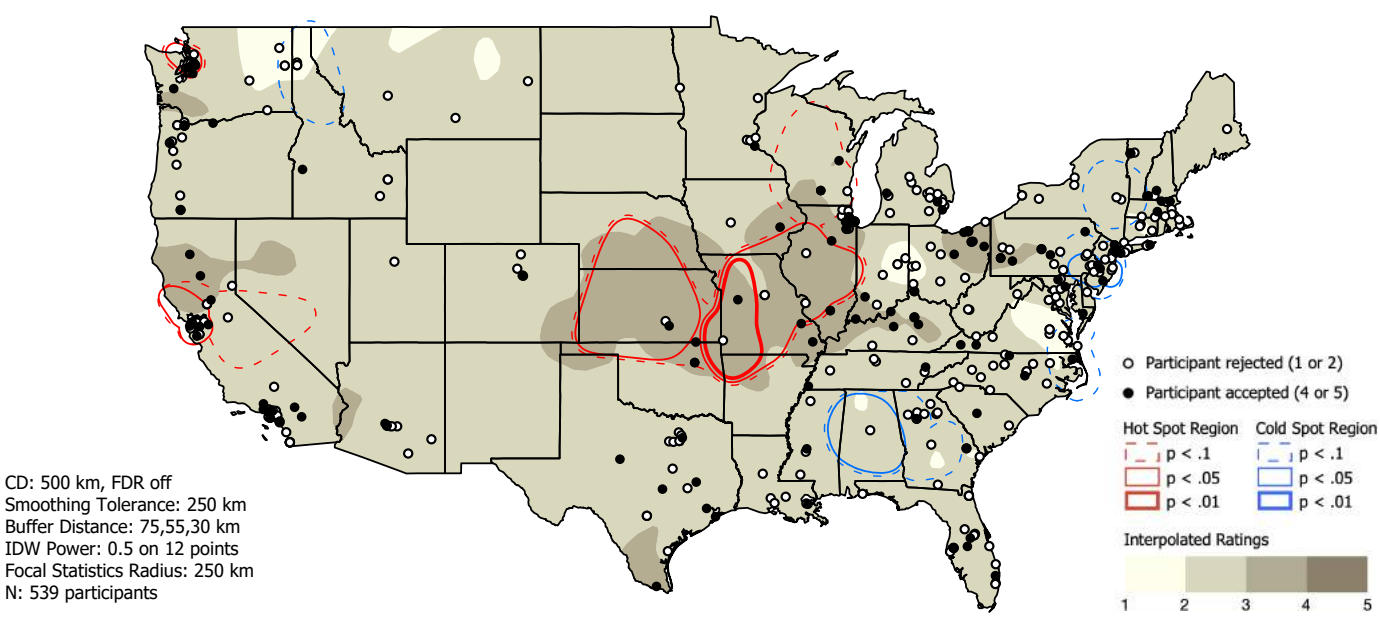
F1154: "Hasn't John yet to win the hearts of his classmates?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

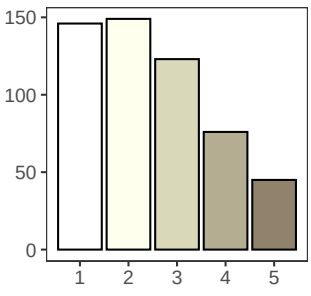
Without FDR Correction: Interpret with caution

F1154: "Hasn't John yet to win the hearts of his classmates?"

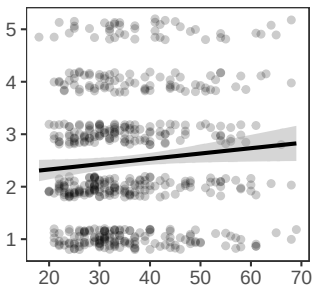


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

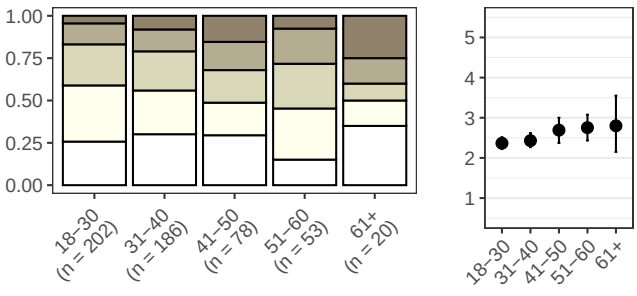
Judgments



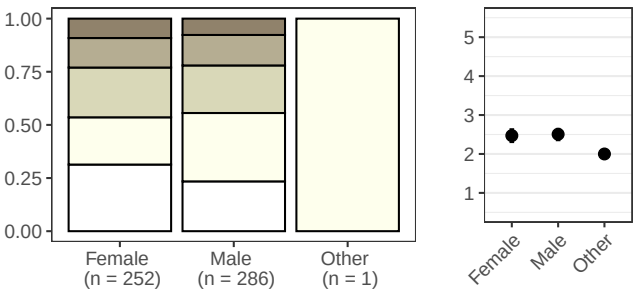
Age



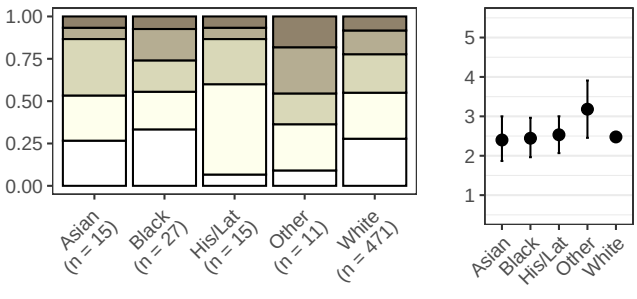
Age groups



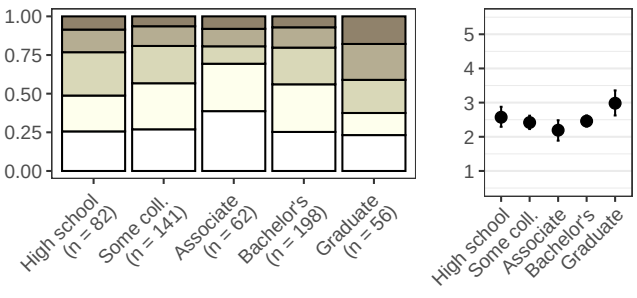
Gender



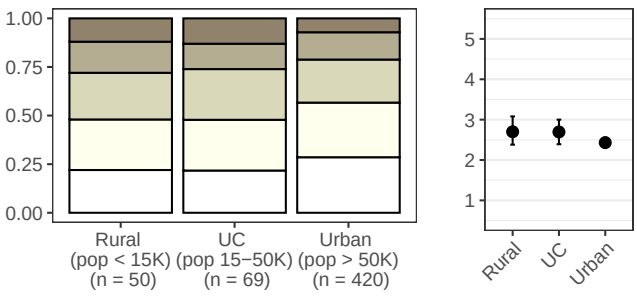
Race



Education

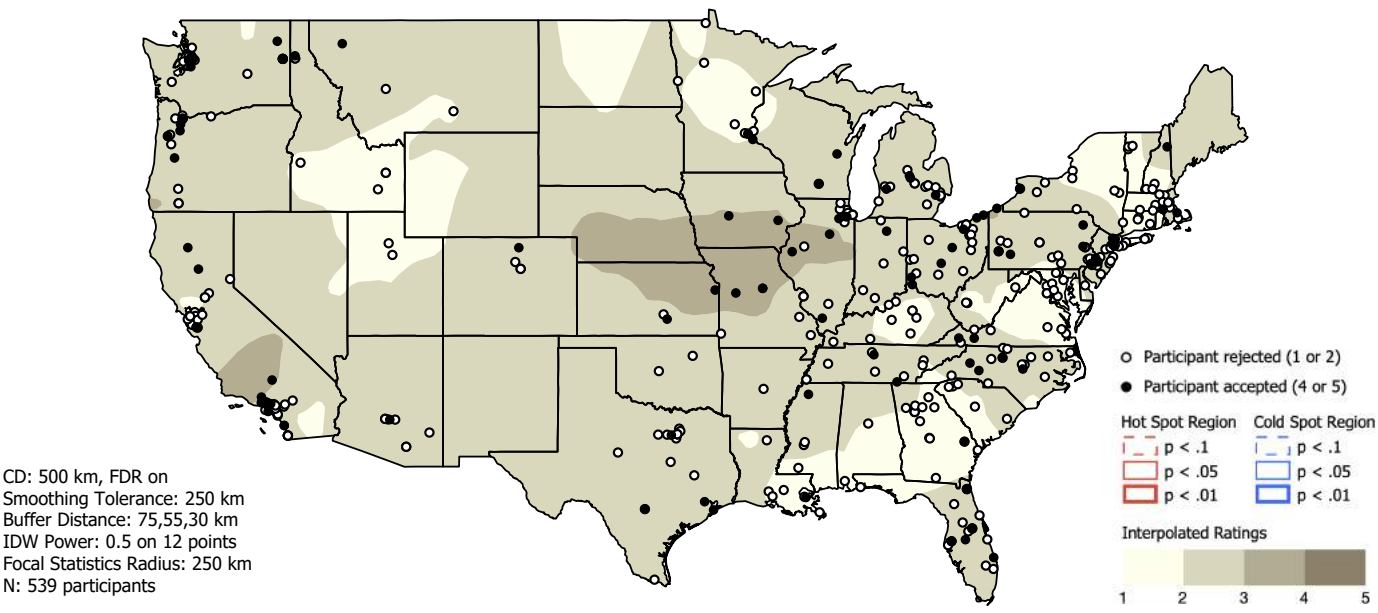


Urban/Rural



With FDR Correction

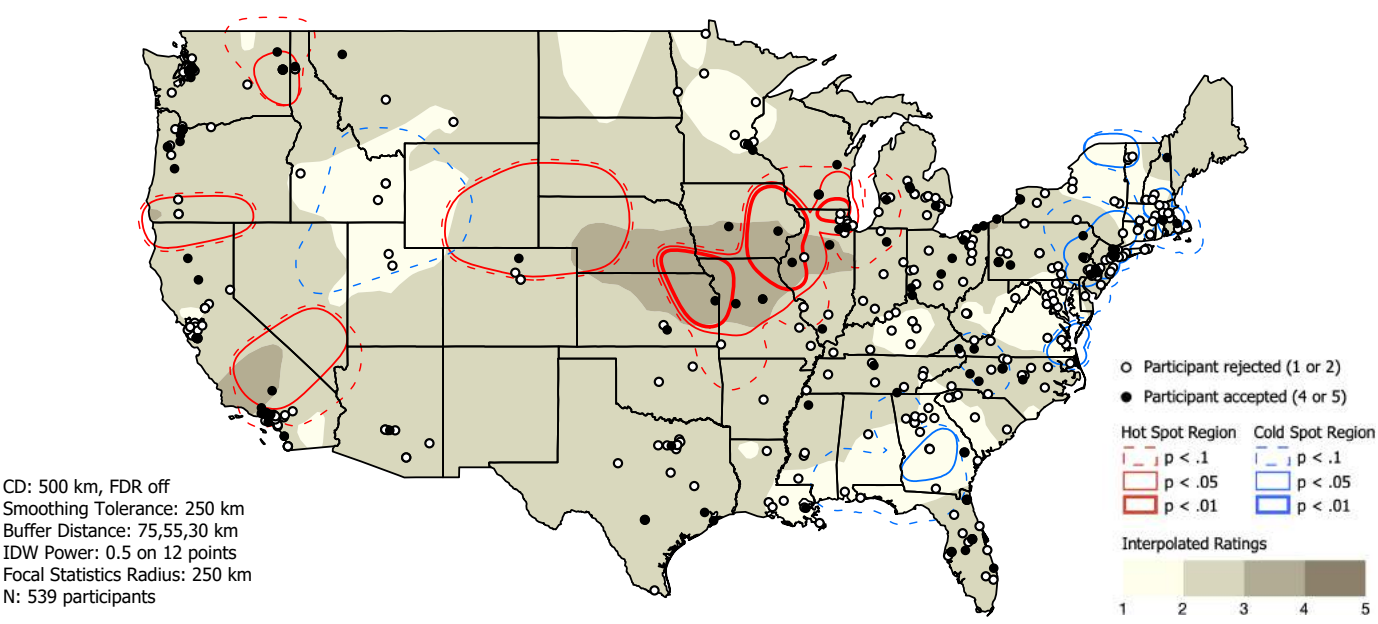
F1156: "What have you yet to eat?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

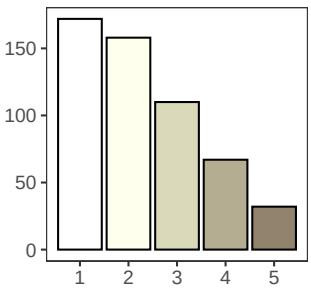
Without FDR Correction: Interpret with caution

F1156: "What have you yet to eat?"

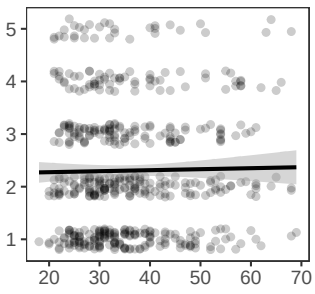


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

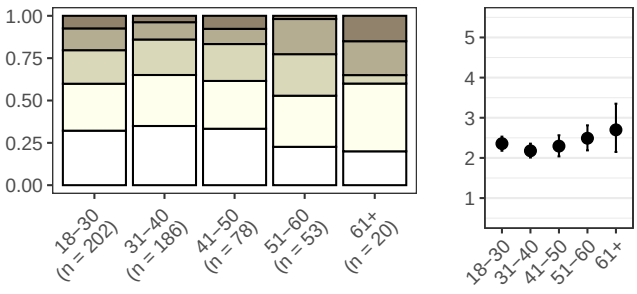
Judgments



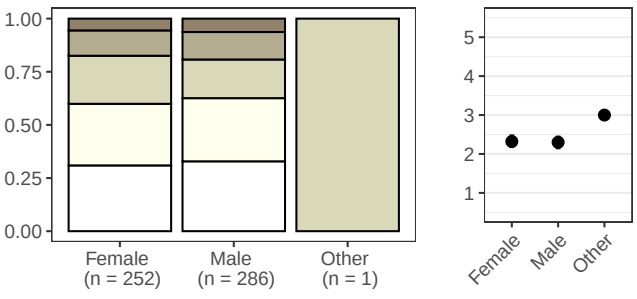
Age



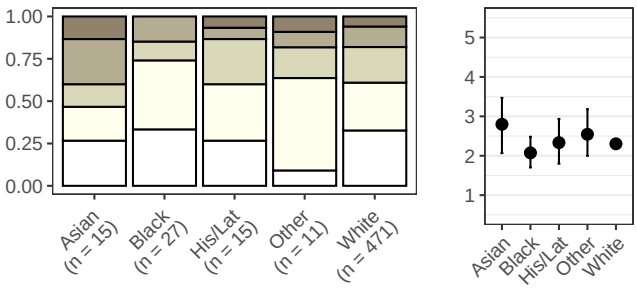
Age groups



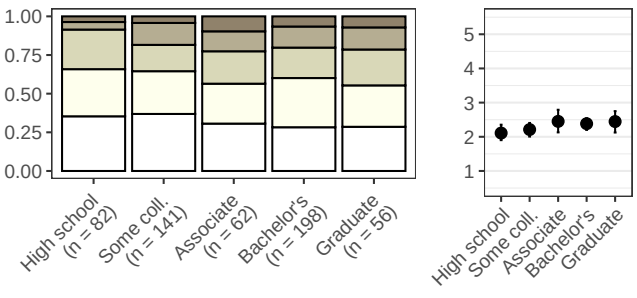
Gender



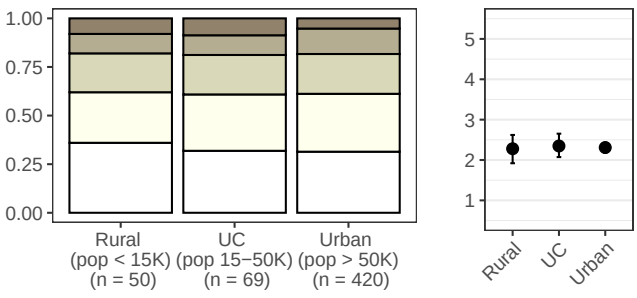
Race



Education

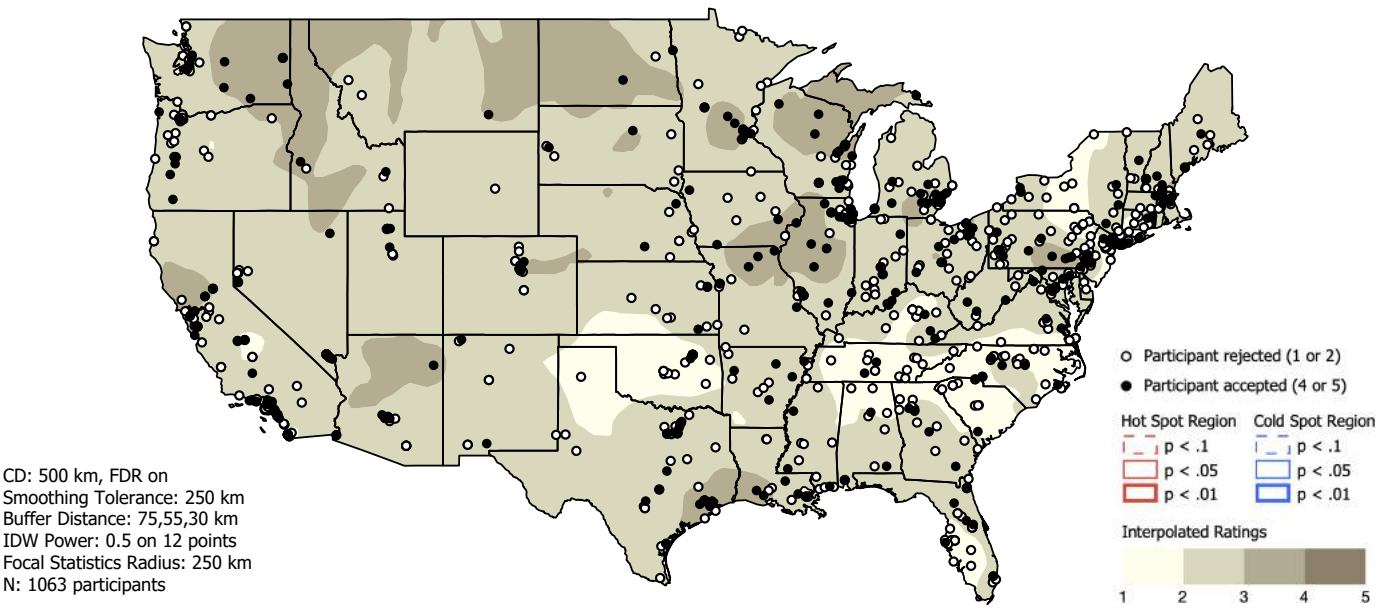


Urban/Rural



With FDR Correction

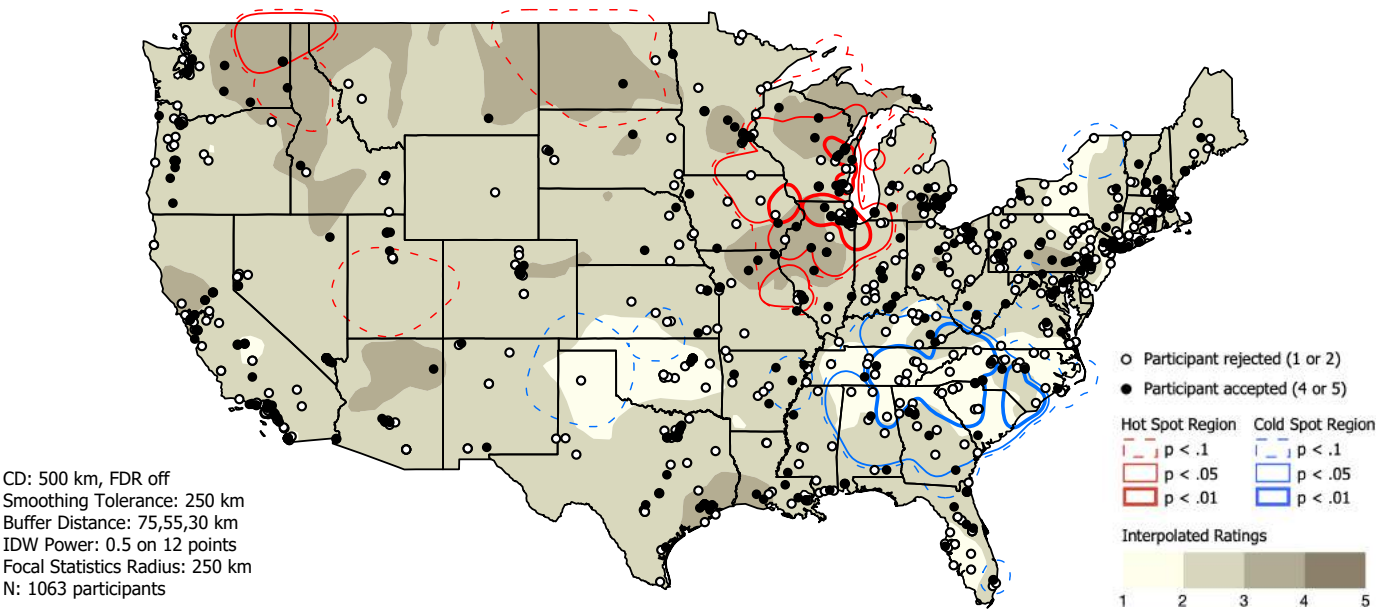
F1041: "He has yet to finish, doesn't he? "



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

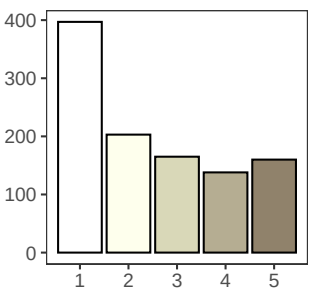
Without FDR Correction: Interpret with caution

F1041: "He has yet to finish, doesn't he? "

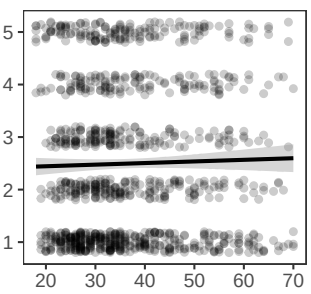


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

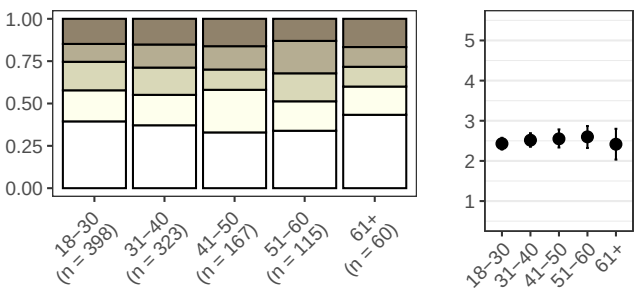
Judgments



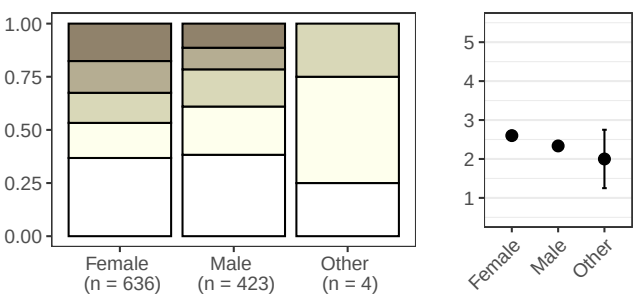
Age



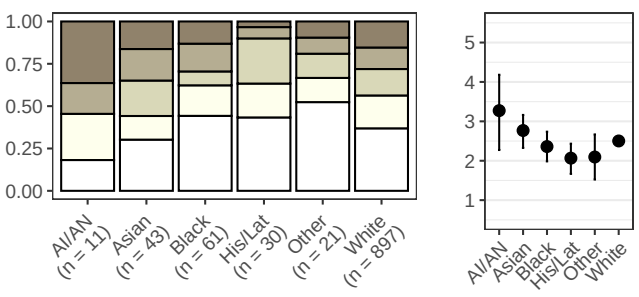
Age groups



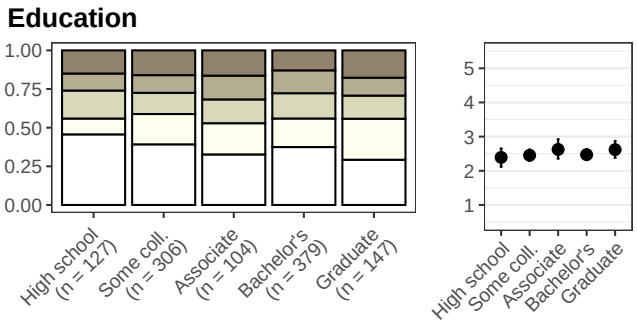
Gender



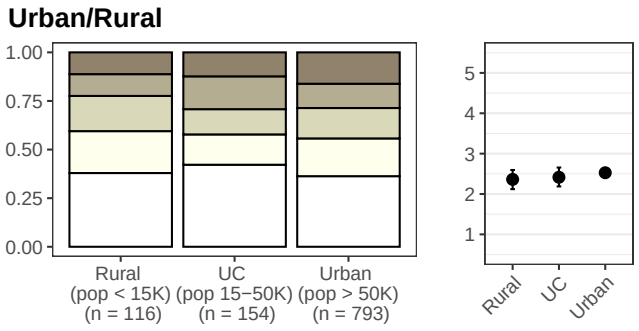
Race



Education

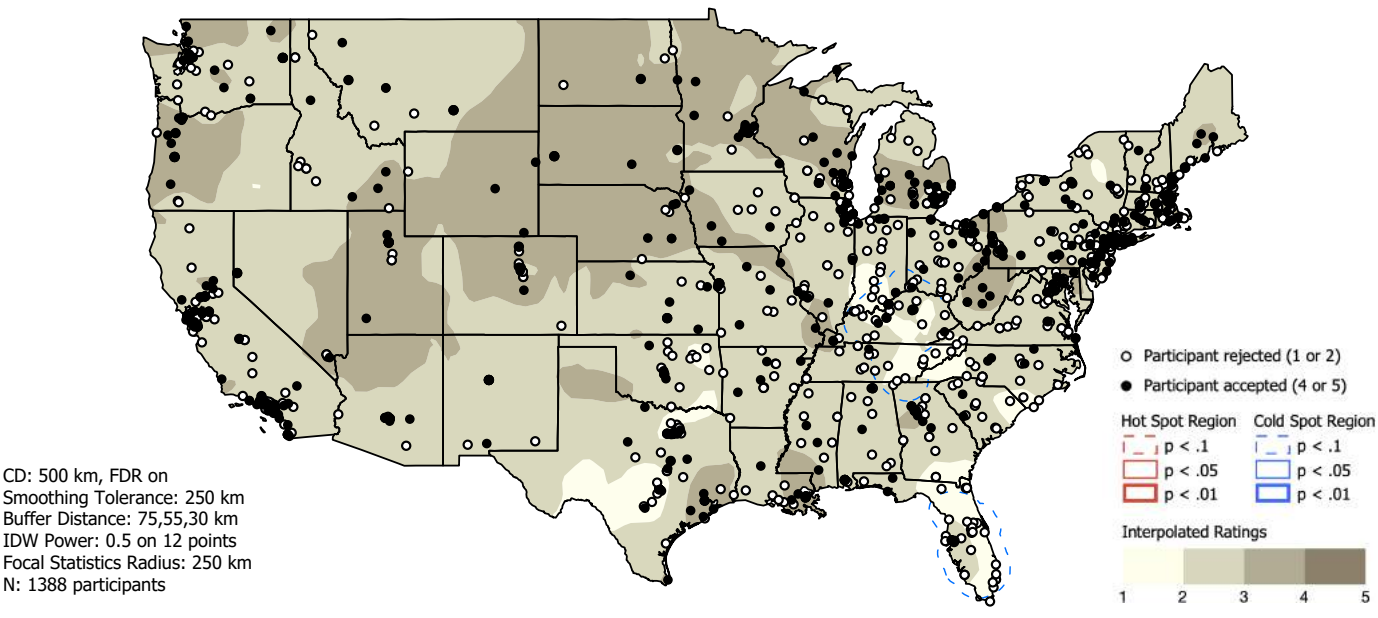


Urban/Rural



With FDR Correction

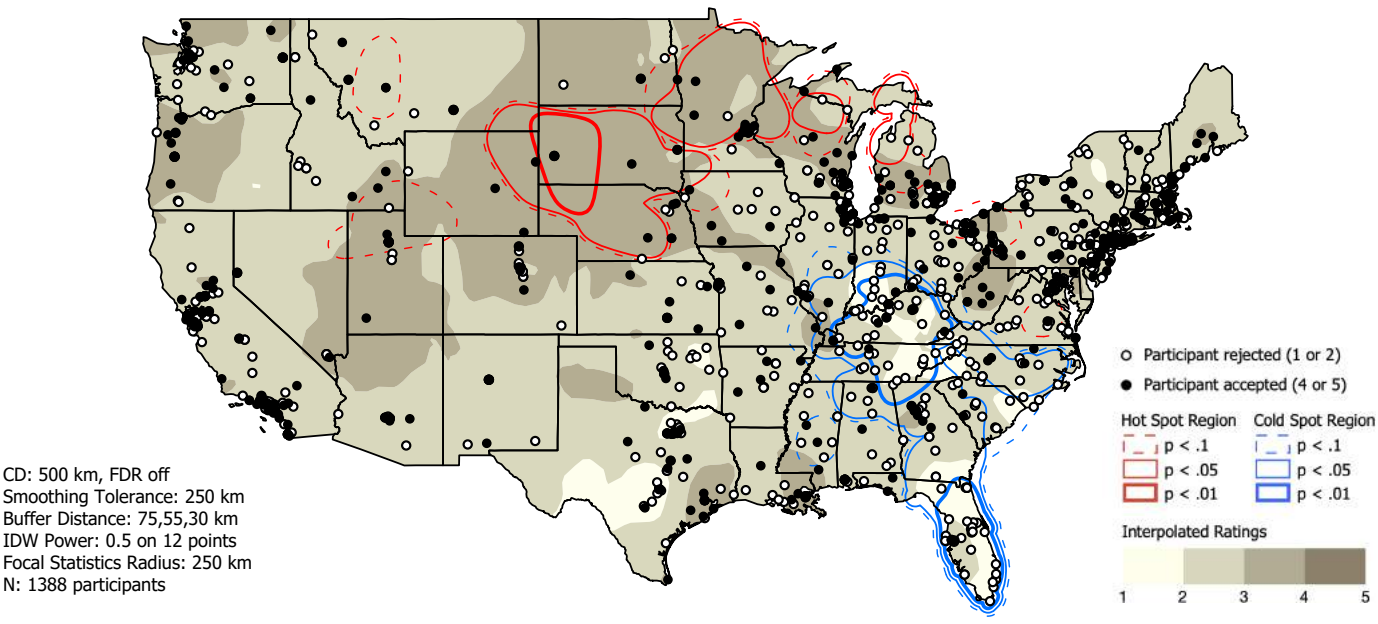
F1084: "John has yet to win the hearts of his classmates, and Bill does too"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1388 participants

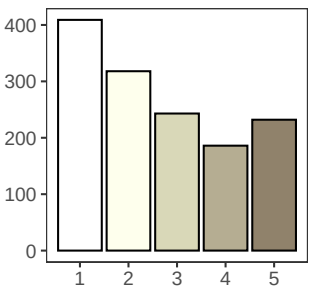
Without FDR Correction: Interpret with caution

F1084: "John has yet to win the hearts of his classmates, and Bill does too"

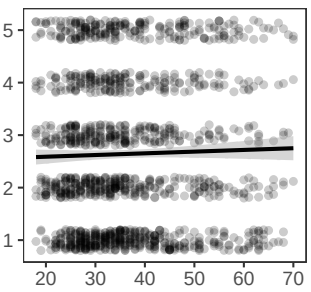


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1388 participants

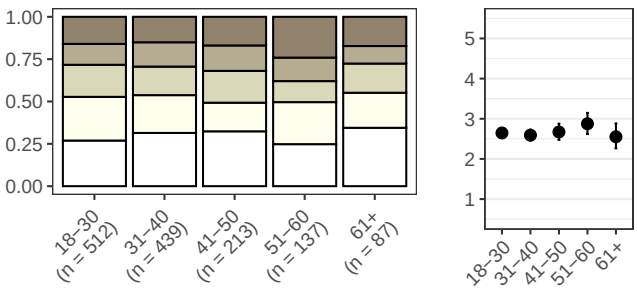
Judgments



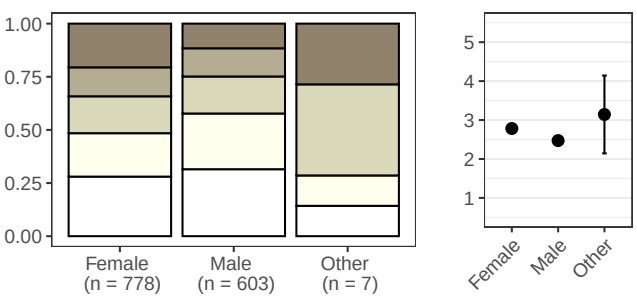
Age



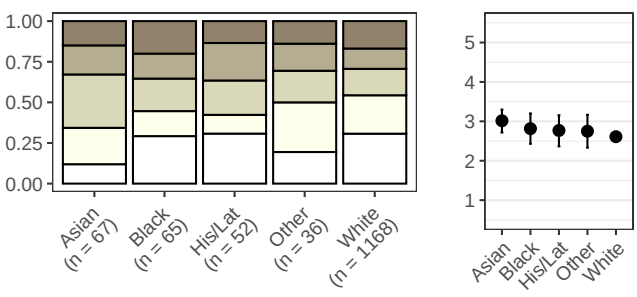
Age groups



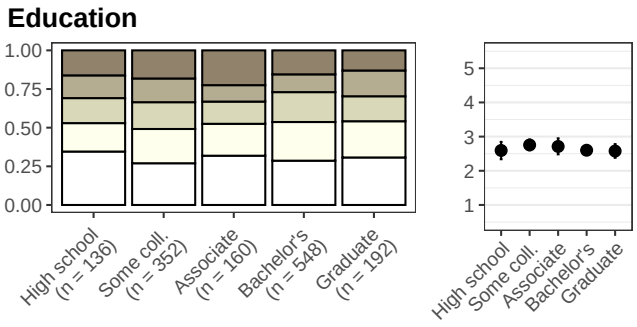
Gender



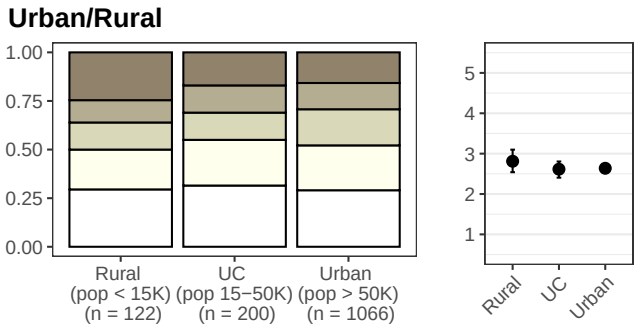
Race



Education

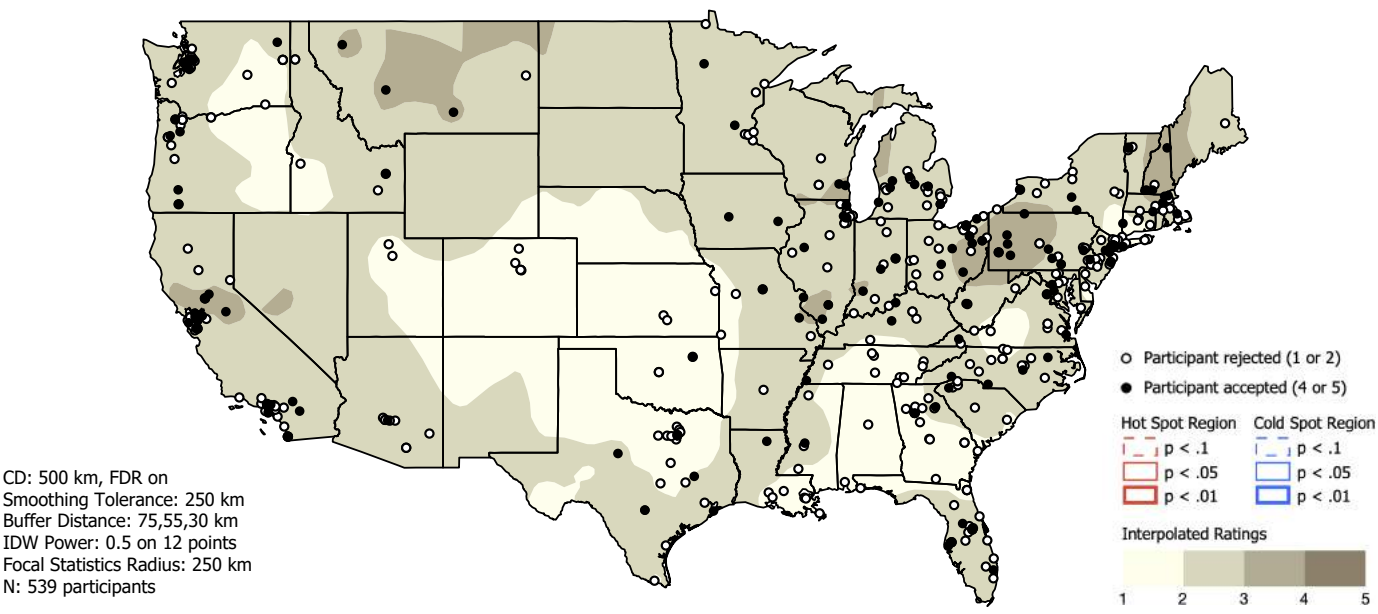


Urban/Rural



With FDR Correction

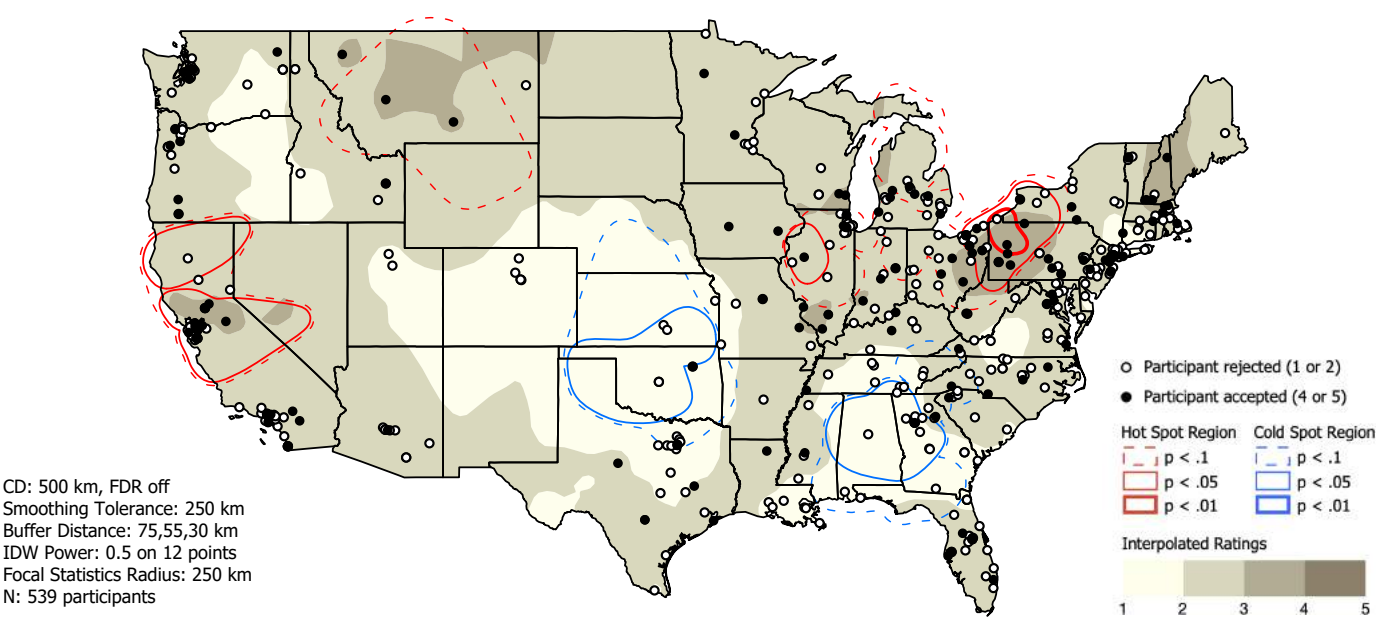
F1148: "Oh, she has yet to finish, does she?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

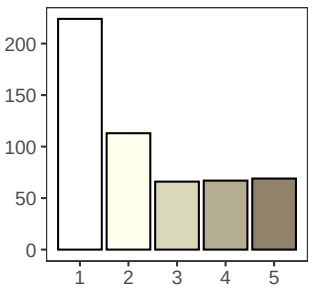
Without FDR Correction: Interpret with caution

F1148: "Oh, she has yet to finish, does she?"

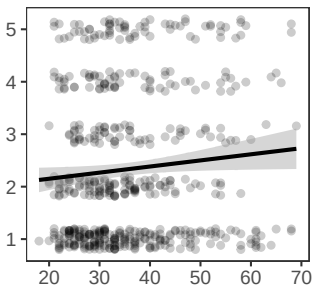


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

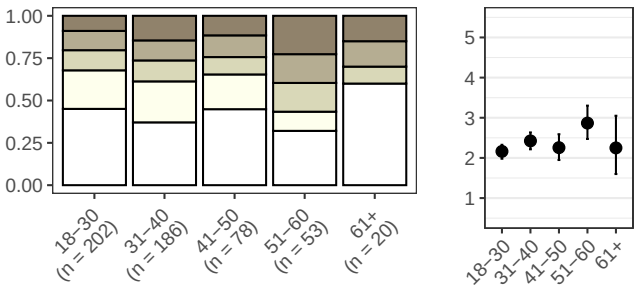
Judgments



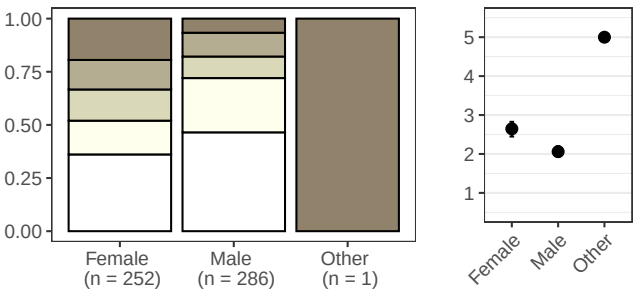
Age



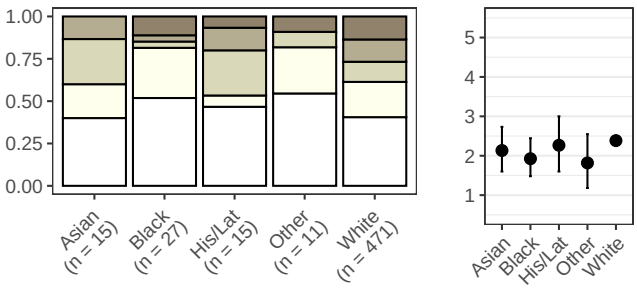
Age groups



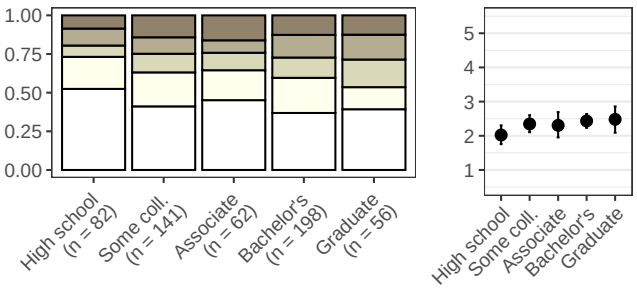
Gender



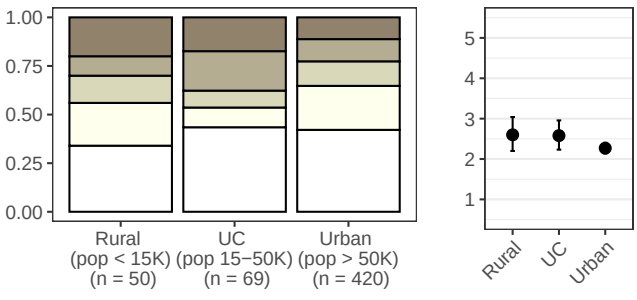
Race



Education

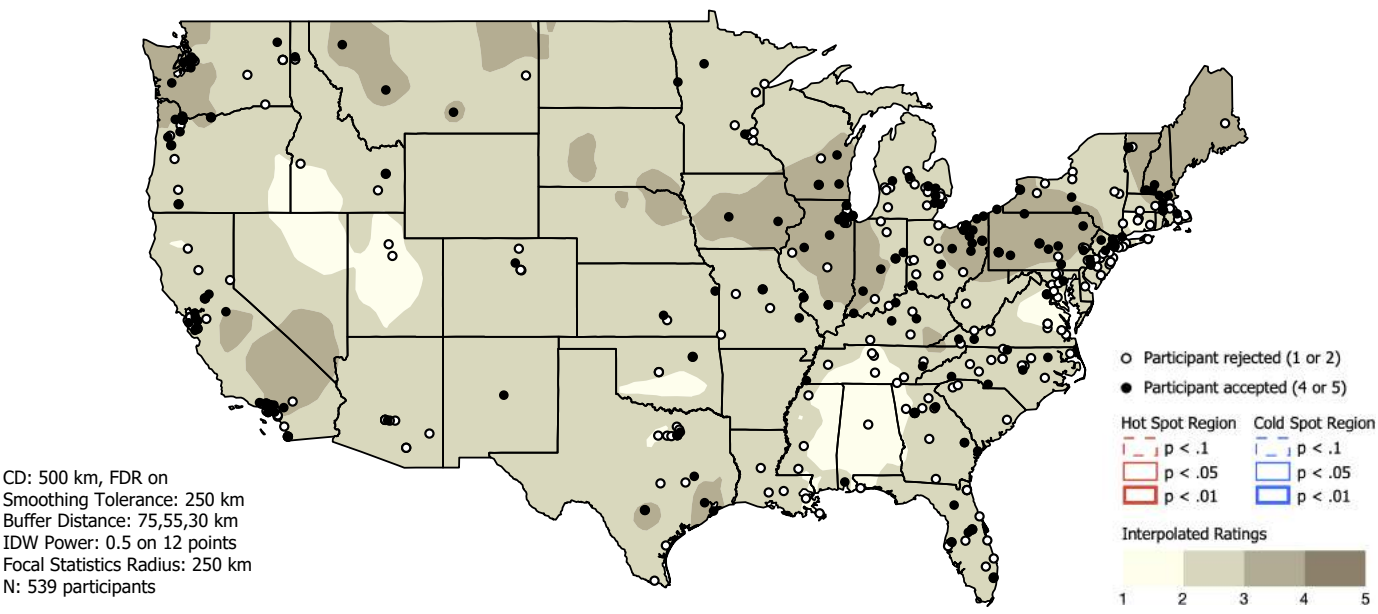


Urban/Rural



With FDR Correction

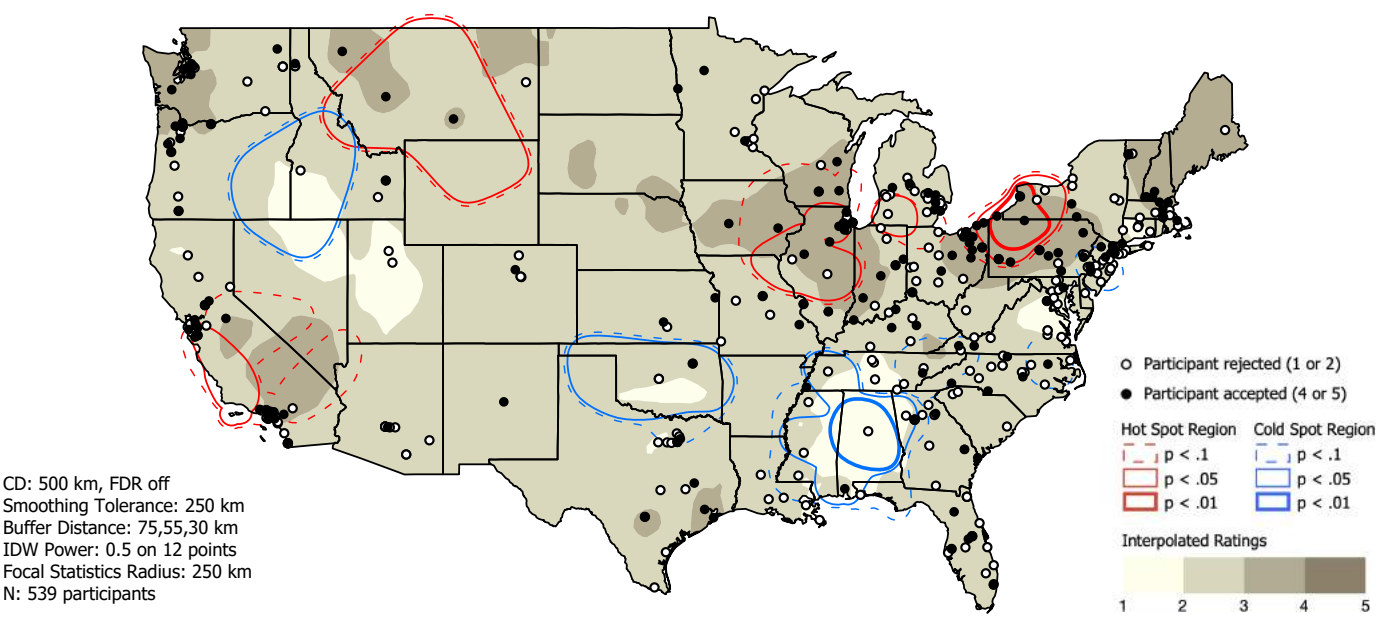
F1151: "Does John have yet to win the hearts of his classmates?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

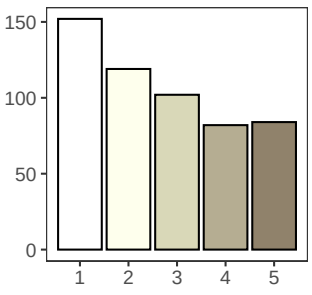
Without FDR Correction: Interpret with caution

F1151: "Does John have yet to win the hearts of his classmates?"

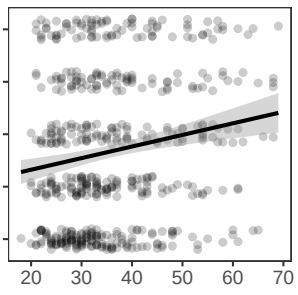


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

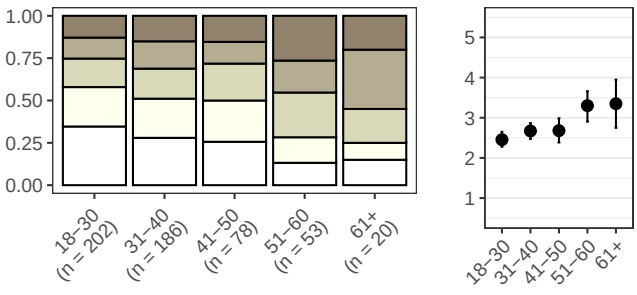
Judgments



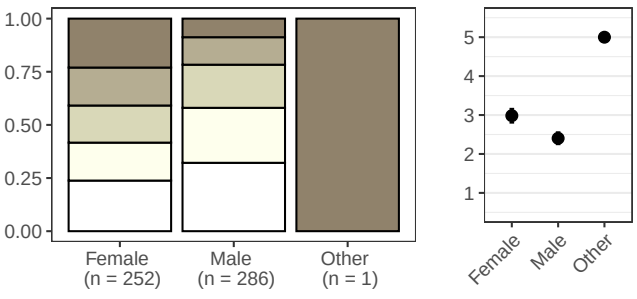
Age



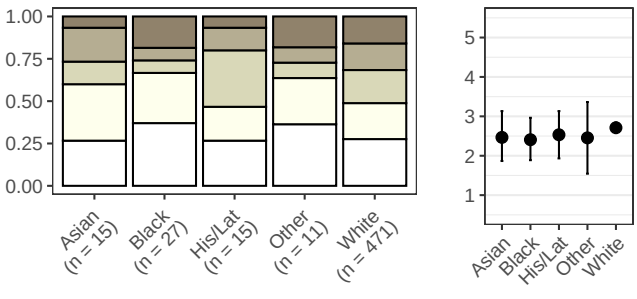
Age groups



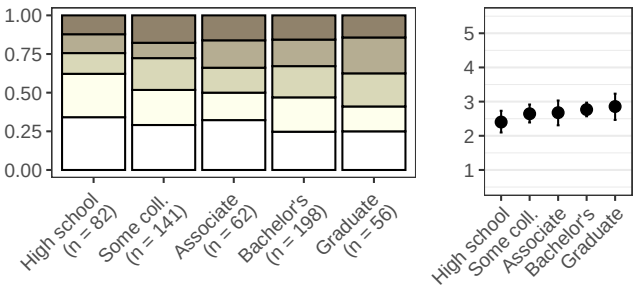
Gender



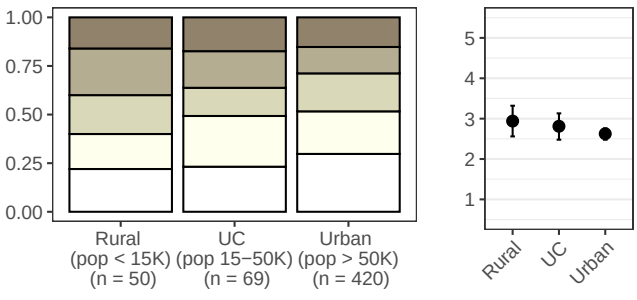
Race



Education

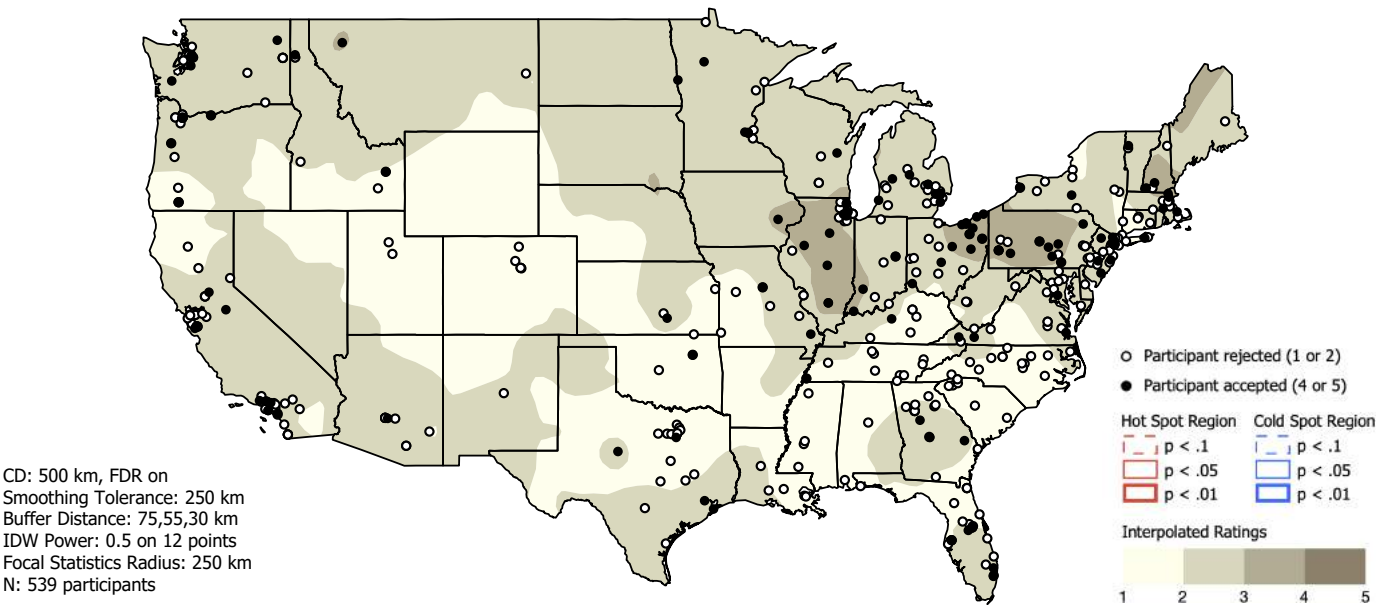


Urban/Rural



With FDR Correction

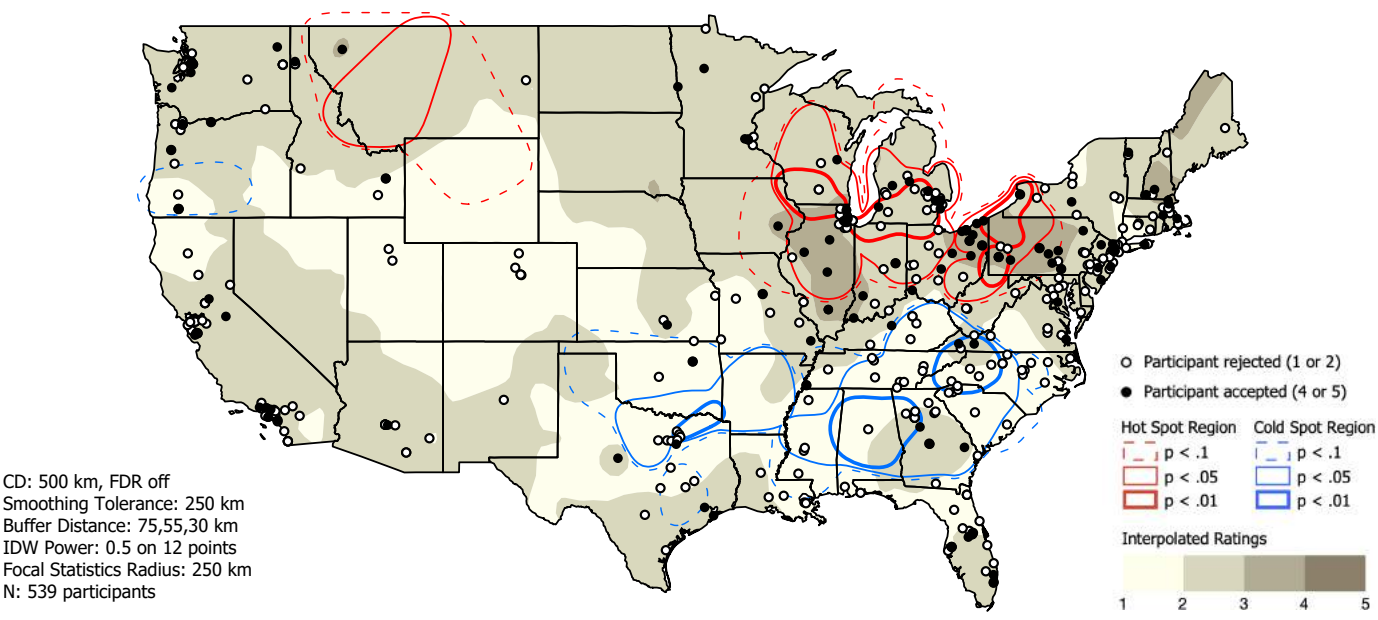
F1153: "Doesn't John have yet to win the hearts of his classmates?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

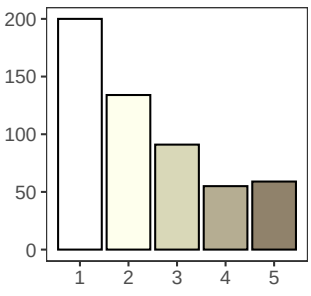
Without FDR Correction: Interpret with caution

F1153: "Doesn't John have yet to win the hearts of his classmates?"

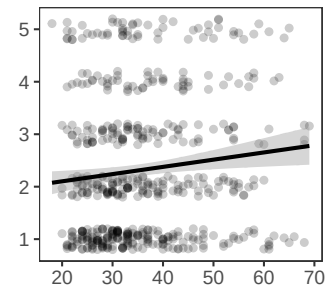


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

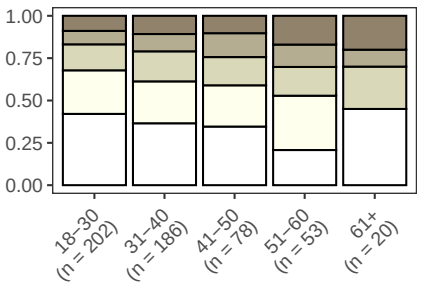
Judgments

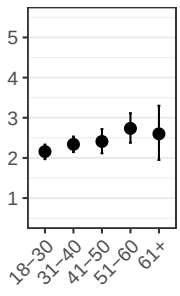


Age

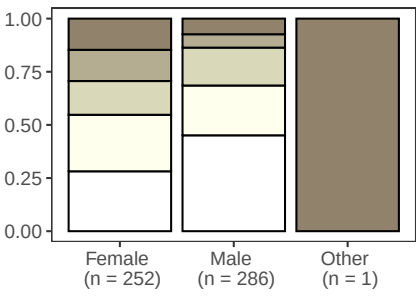


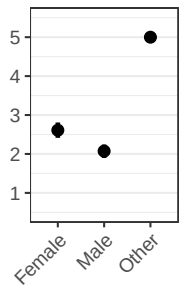
Age groups



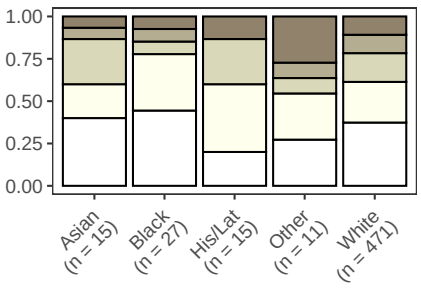


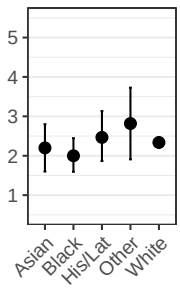
Gender



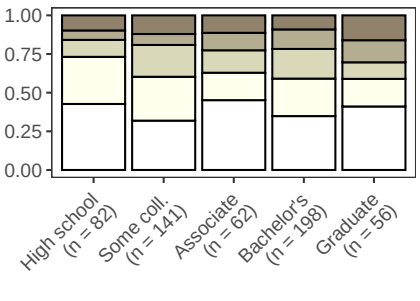


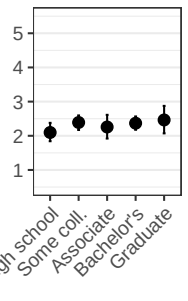
Race



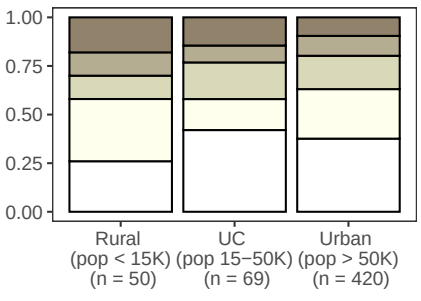


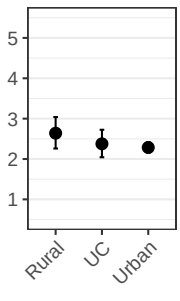
Education





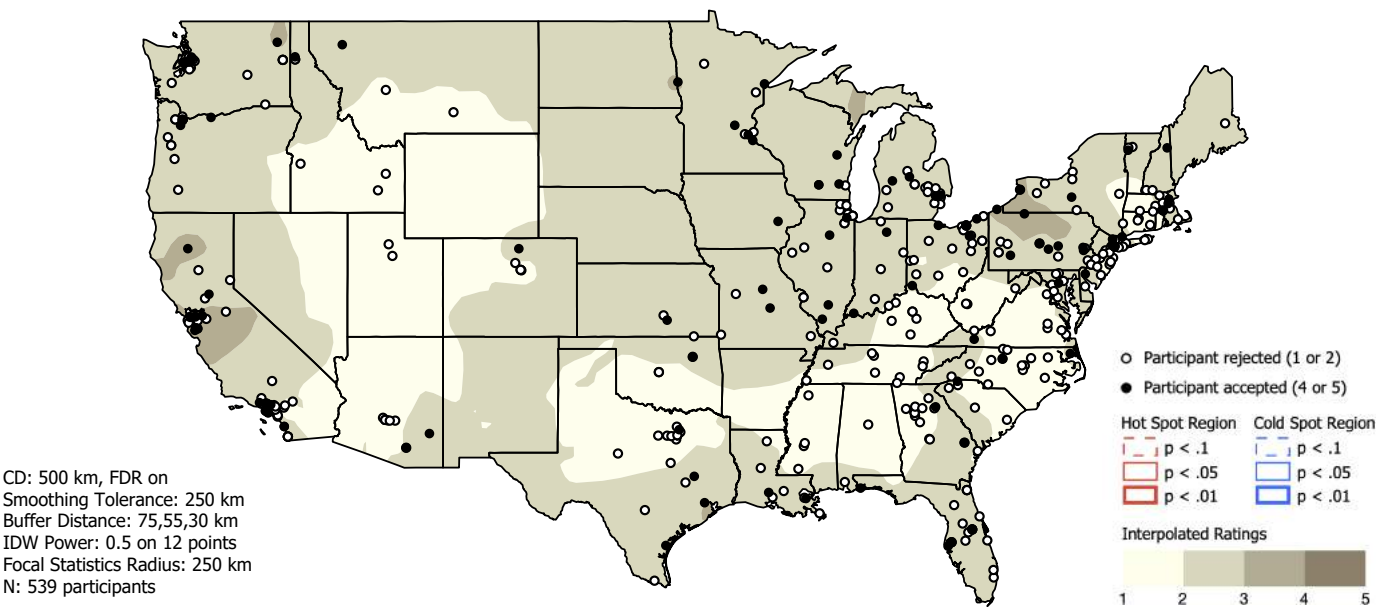
Urban/Rural





With FDR Correction

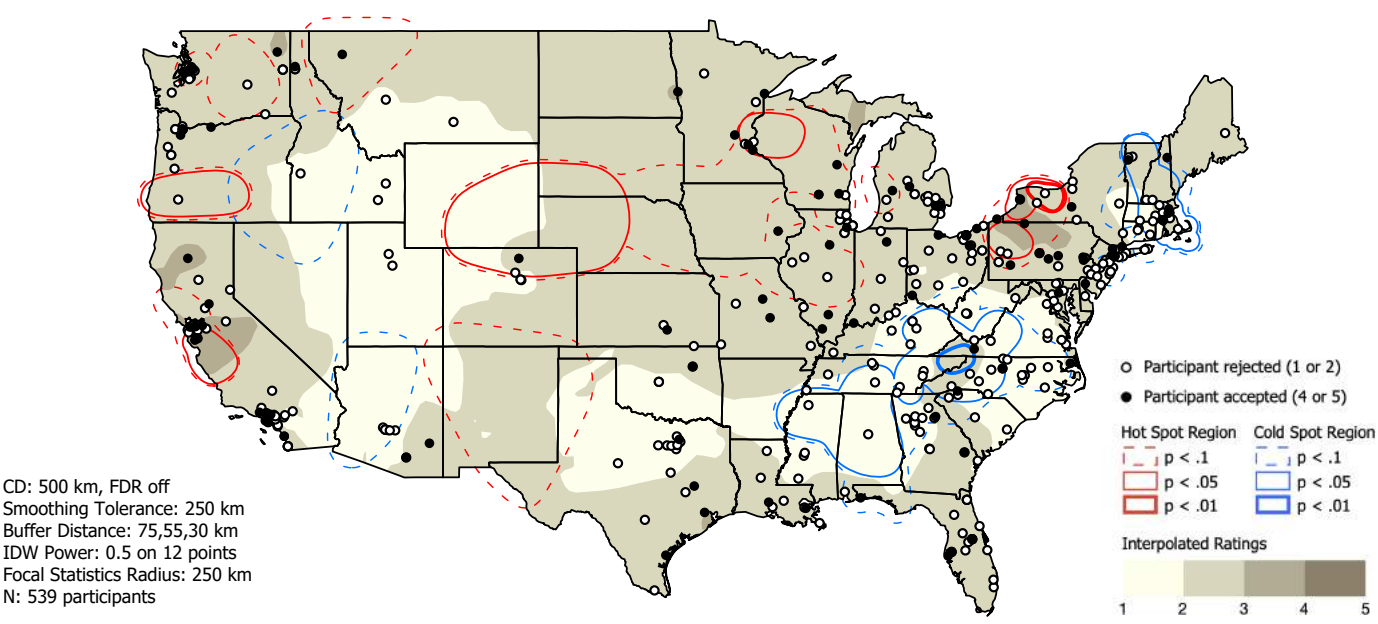
F1155: "What do you have yet to eat?"



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

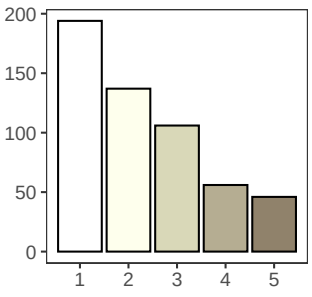
Without FDR Correction: Interpret with caution

F1155: "What do you have yet to eat?"

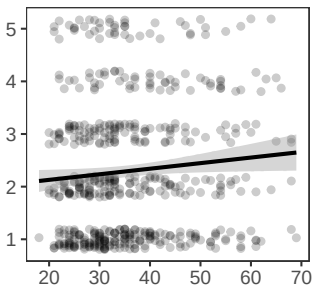


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

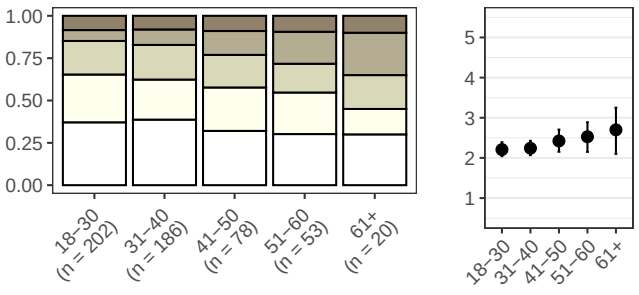
Judgments



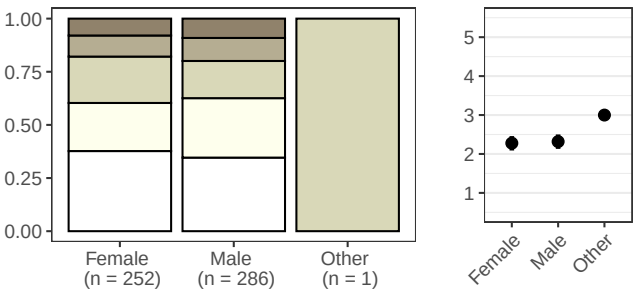
Age



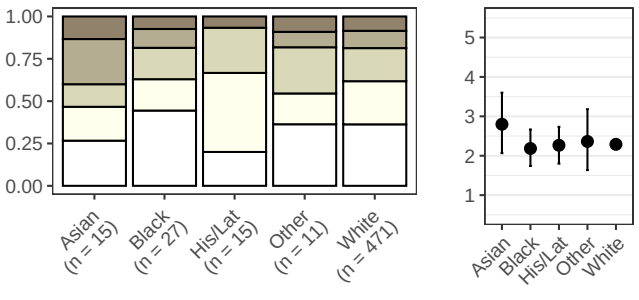
Age groups



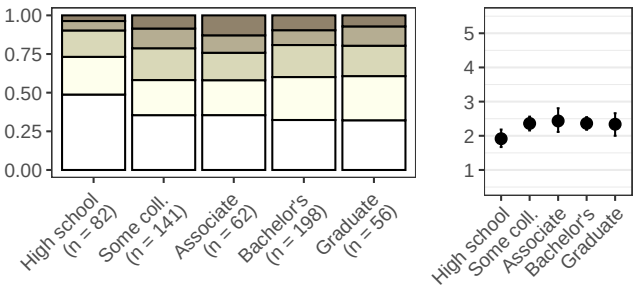
Gender



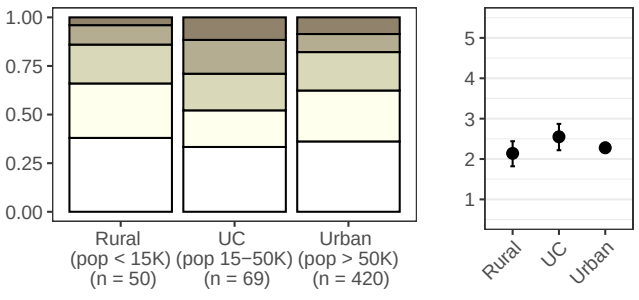
Race



Education



Urban/Rural



3.2 *Have Yet To*: Negative vs. Affirmative

The HYT construction has a semantically negative meaning, but there has been some controversy about whether it is syntactically negative as well (Kelly 2008, 2012; Bybel and Johnson 2014; Harves and Myler 2014). The sentences in (10) were intended to test the affirmative or negative status of the construction.

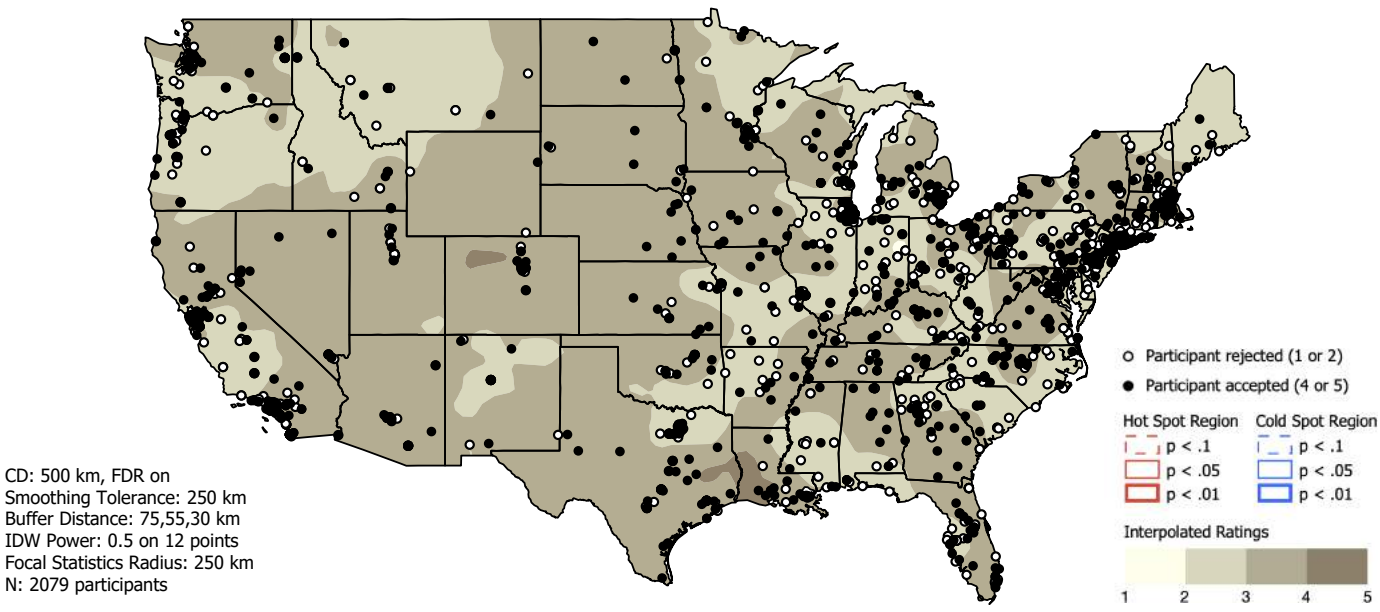
(10)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1066	Jordan has yet to read it, and so has Pat.	2079	3.08	1.37	5, 5b, 6, 8
F1062	I haven't yet to finish the homework, but I'll finish it tomorrow.	1062	2.50	1.35	5, 5b
F1065	Jordan has yet to read it, and neither has Pat.	1943	3.73	1.33	5, 5b, 6, 8
F1085	Jordan has yet to visit Grandpa, not even once.	1389	4.27	1.11	6, 6b
F1146	Jordan has yet to read it, and so does Pat.	539	2.20	1.30	8
F1147	Jordan has yet to read it, and neither does Pat.	539	1.78	0.99	8
F1150	John has yet to eat dinner, I don't think.	539	2.45	1.26	8

The results of this investigation have been reported in Tyler and Wood (2019). We have not investigated the regionality of the negation sentences in any detail, but some pilot dialectometry studies in the works suggest (perhaps somewhat surprisingly) that there may be some regional patterns to some of them, particularly the *so*-inversion sentences, 1066 and 1146. No regional patterns for these sentences reach significance in the maps below when the FDR is used, but this might warrant further research.

With FDR Correction

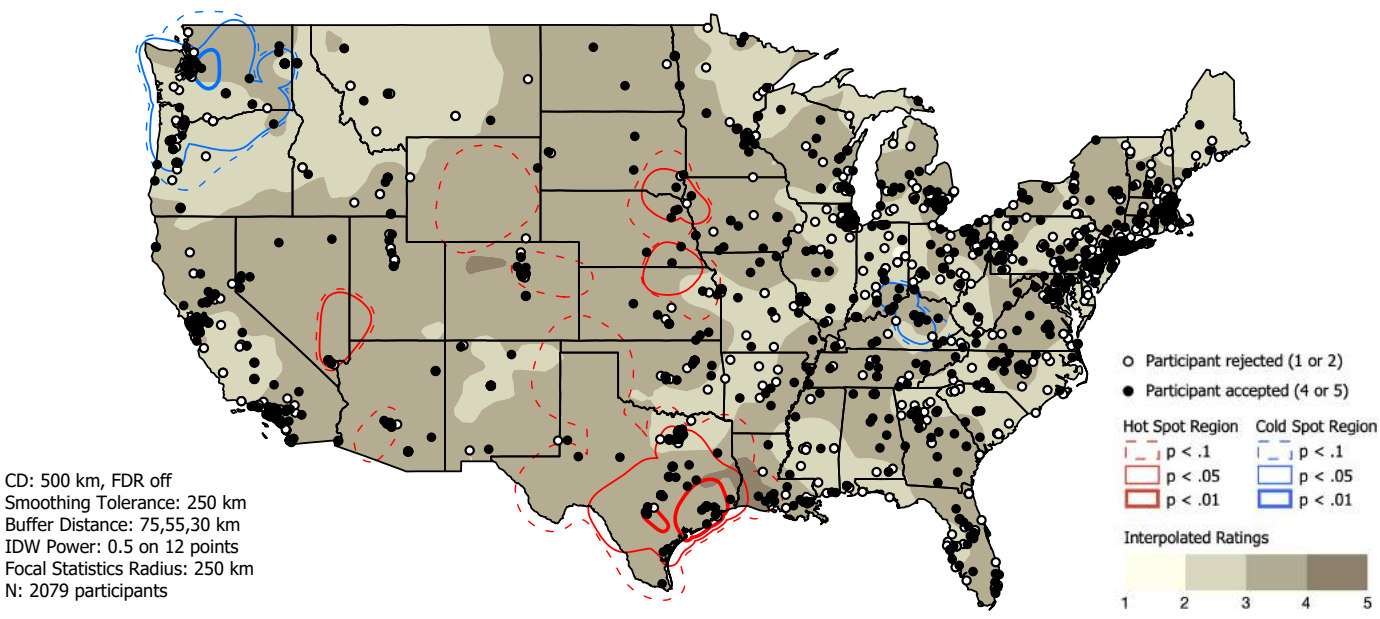
F1066: "Jordan has yet to read it, and so has Pat."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 2079 participants

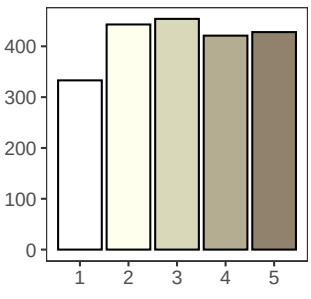
Without FDR Correction: Interpret with caution

F1066: "Jordan has yet to read it, and so has Pat."

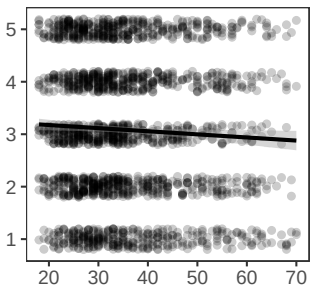


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 2079 participants

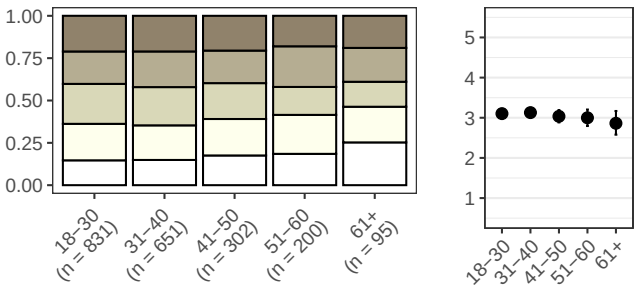
Judgments



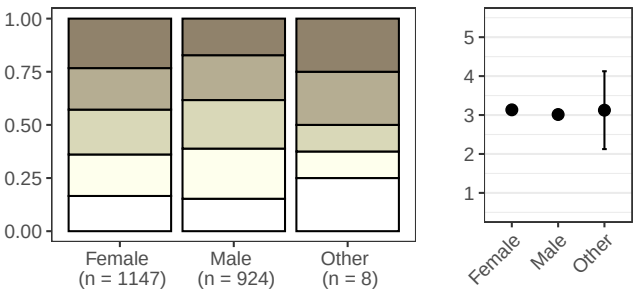
Age



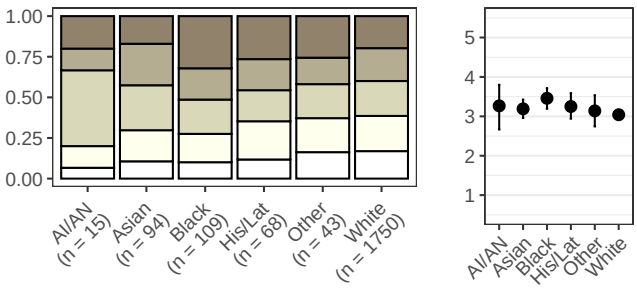
Age groups



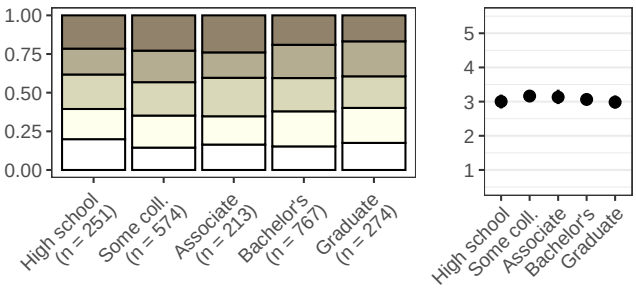
Gender



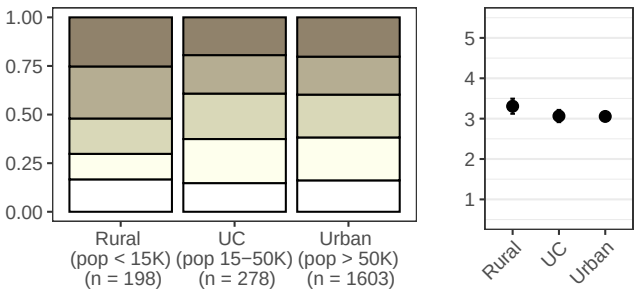
Race



Education

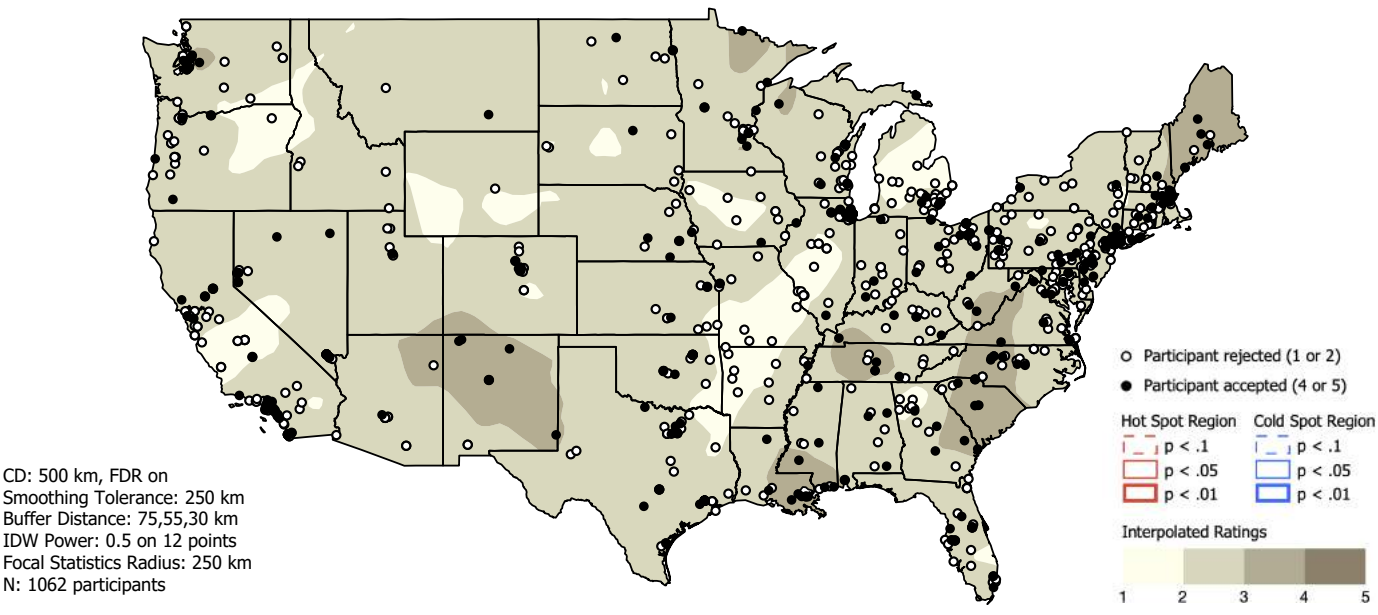


Urban/Rural



With FDR Correction

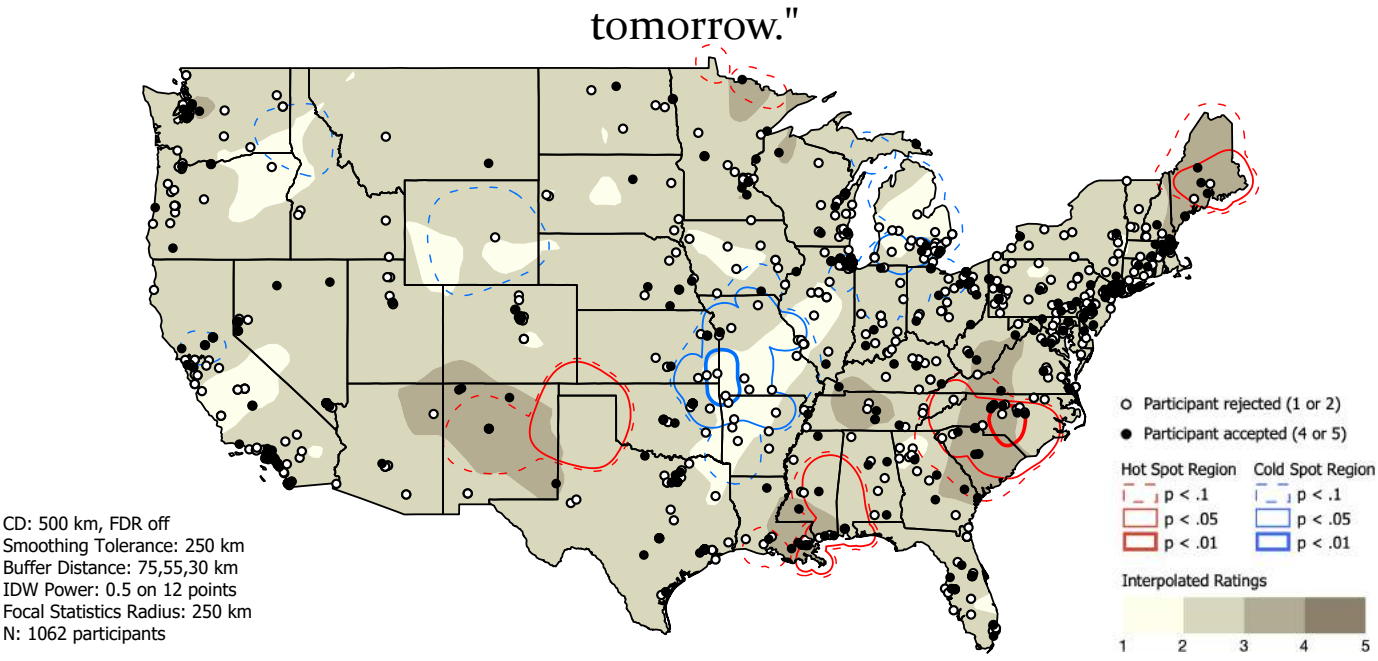
F1062: "I haven't yet to finish the homework, but I'll finish it tomorrow."



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Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

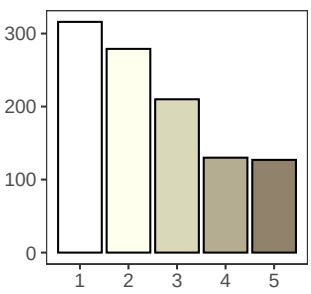
Without FDR Correction: Interpret with caution

F1062: "I haven't yet to finish the homework, but I'll finish it tomorrow."

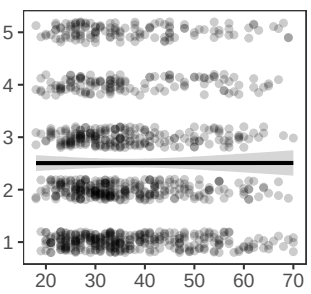


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

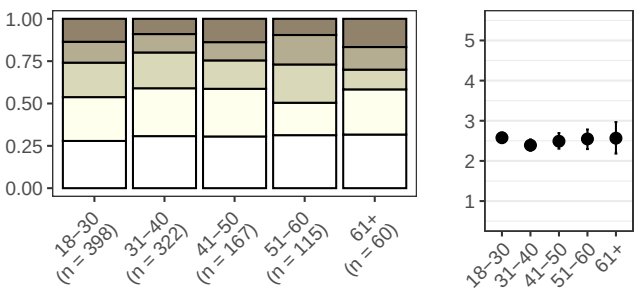
Judgments



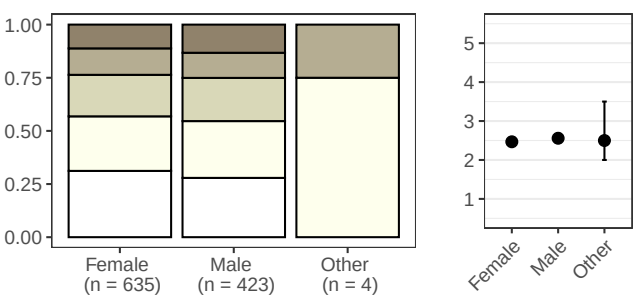
Age



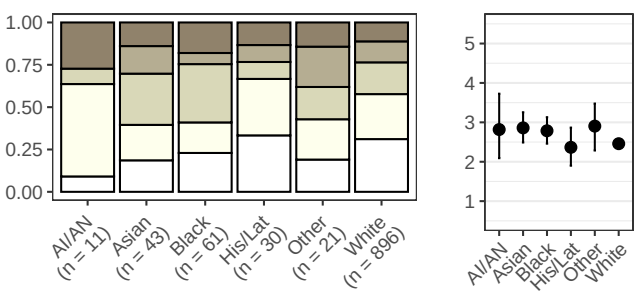
Age groups



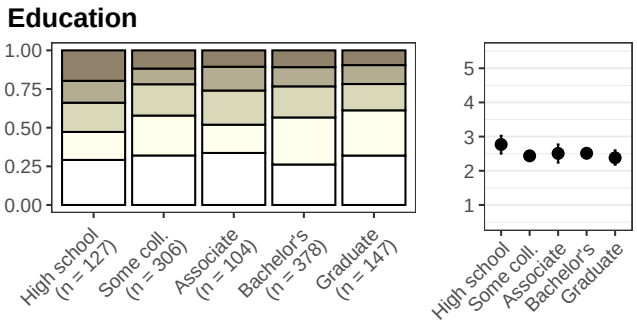
Gender



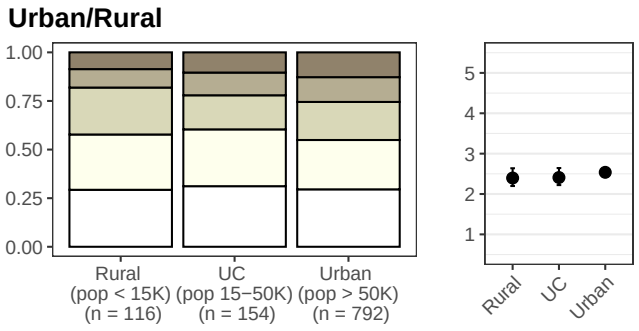
Race



Education

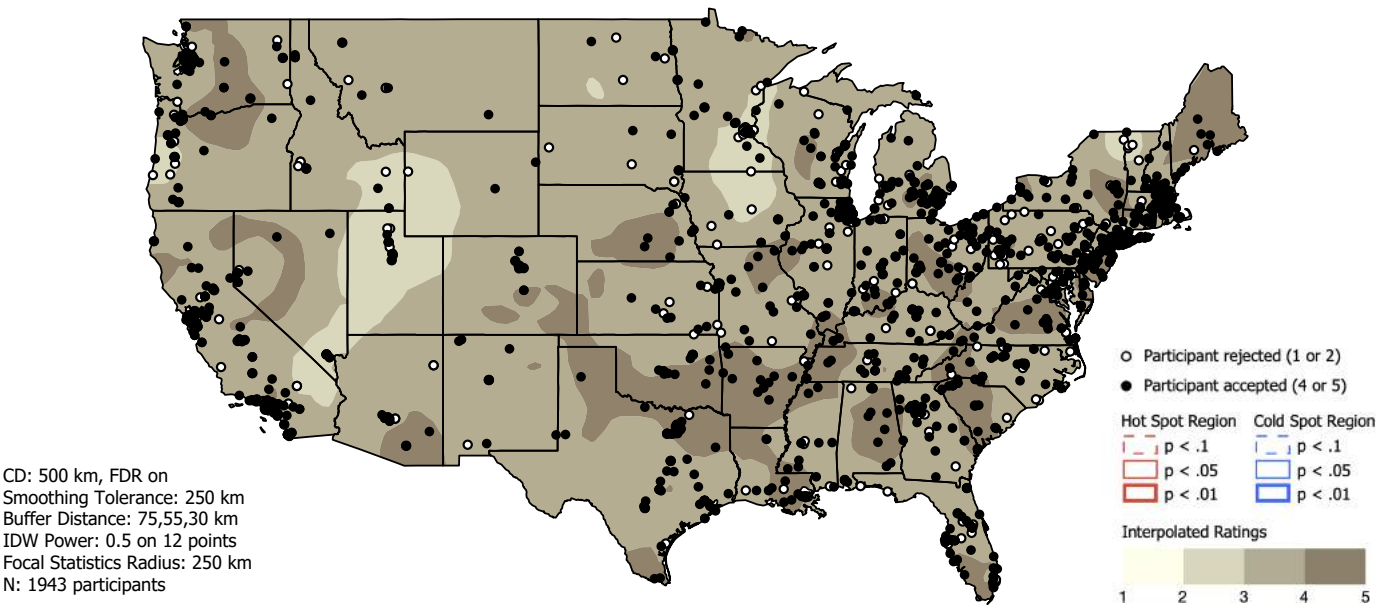


Urban/Rural



With FDR Correction

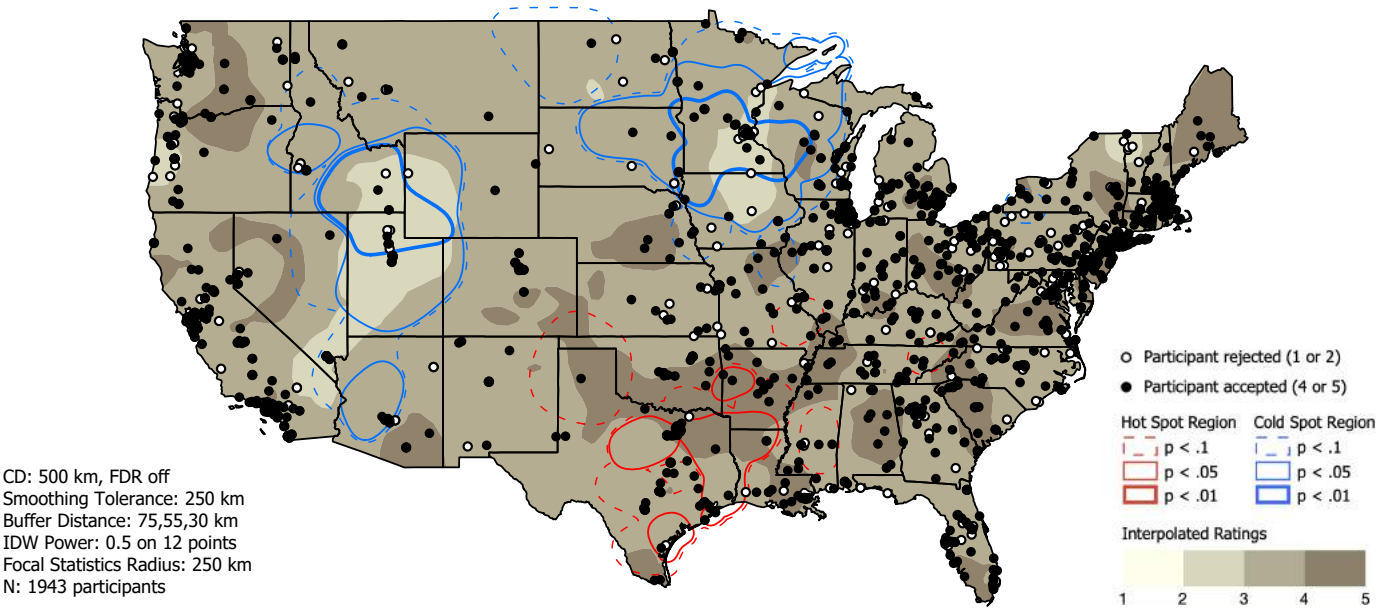
F1065: "Jordan has yet to read it, and neither has Pat."



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Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1943 participants

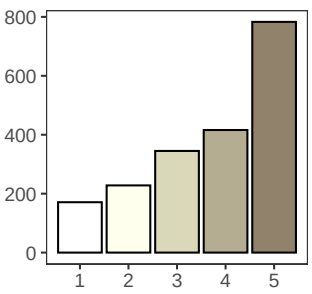
Without FDR Correction: Interpret with caution

F1065: "Jordan has yet to read it, and neither has Pat."

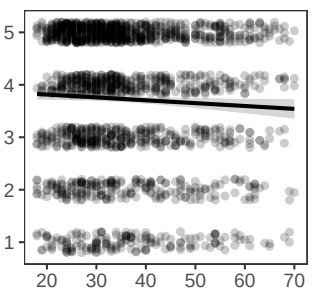


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1943 participants

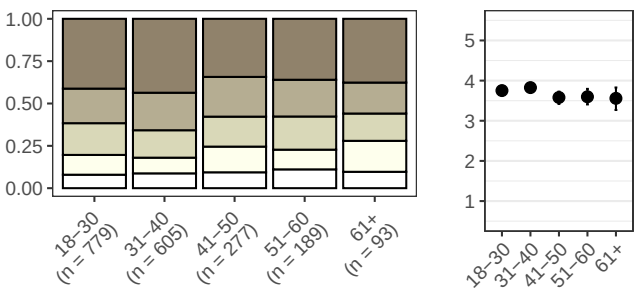
Judgments



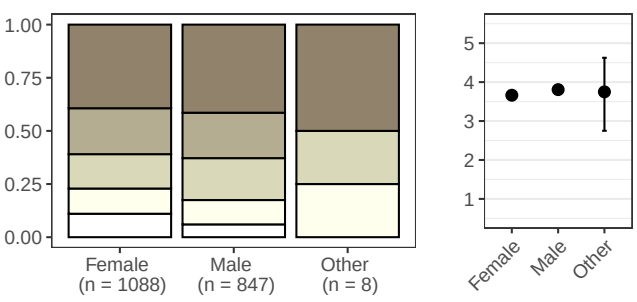
Age



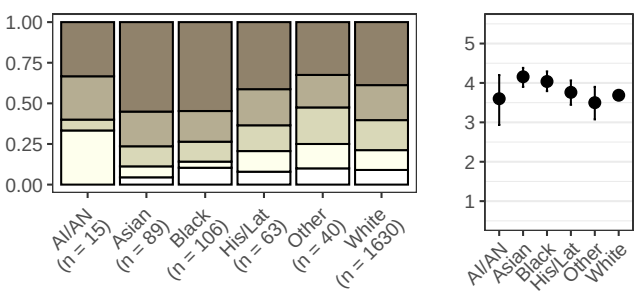
Age groups



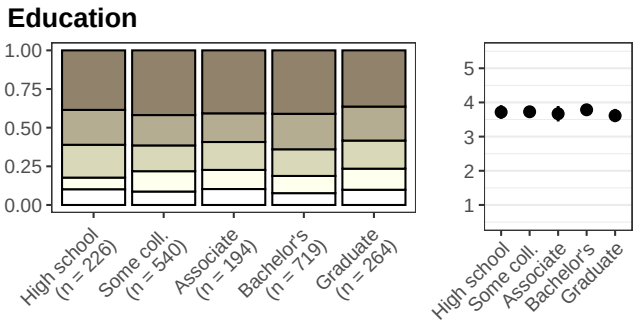
Gender



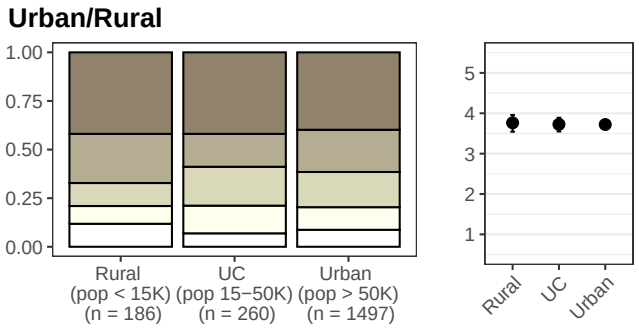
Race



Education

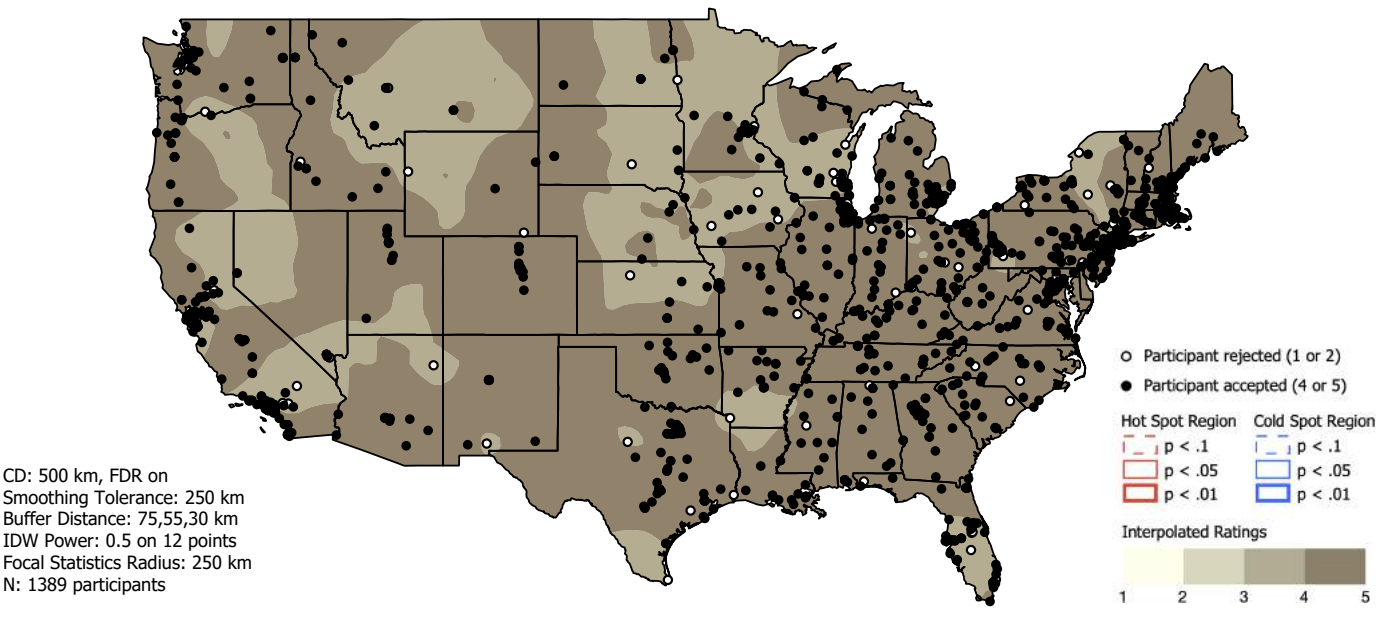


Urban/Rural



With FDR Correction

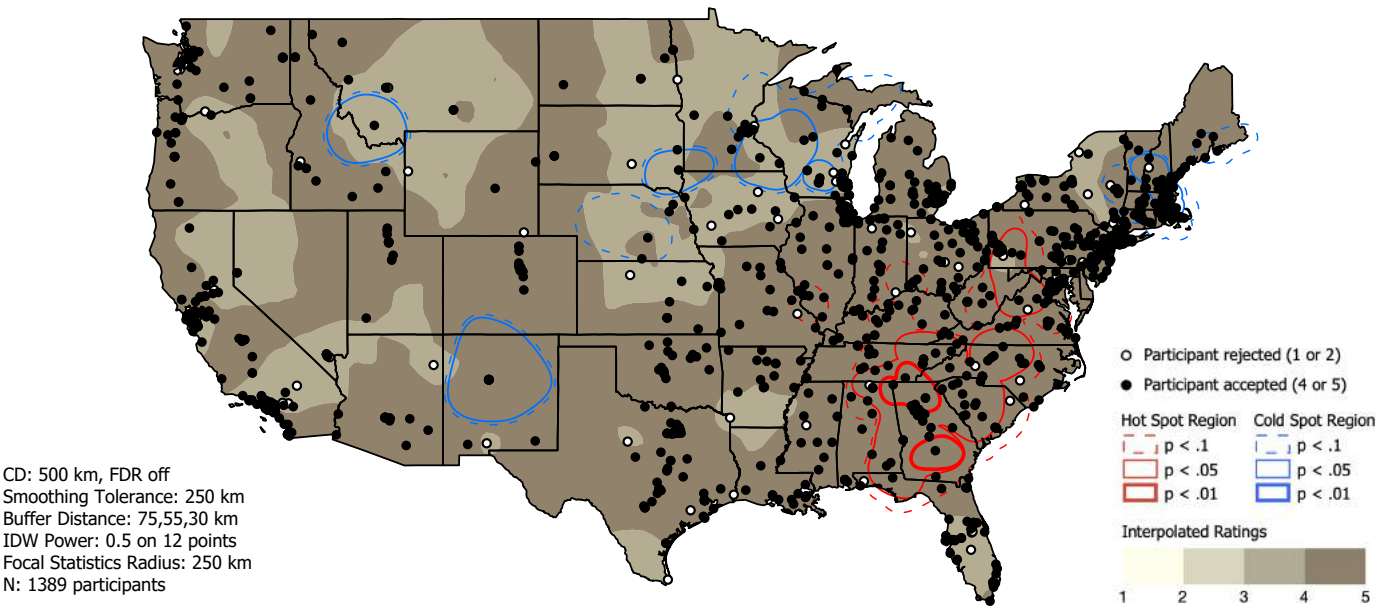
F1085: "Jordan has yet to visit Grandpa, not even once"



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Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

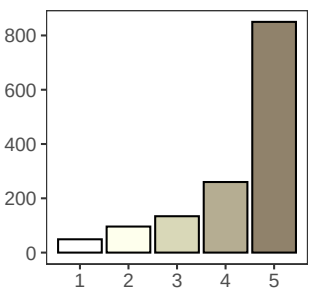
Without FDR Correction: Interpret with caution

F1085: "Jordan has yet to visit Grandpa, not even once"

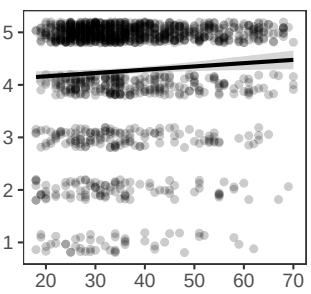


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

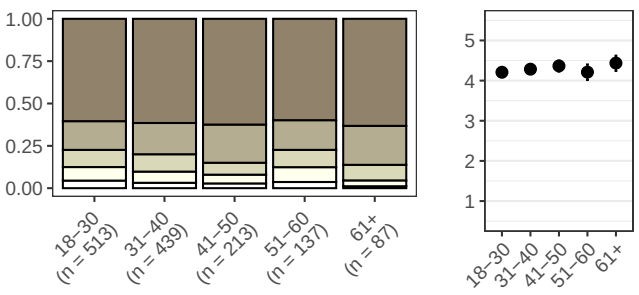
Judgments



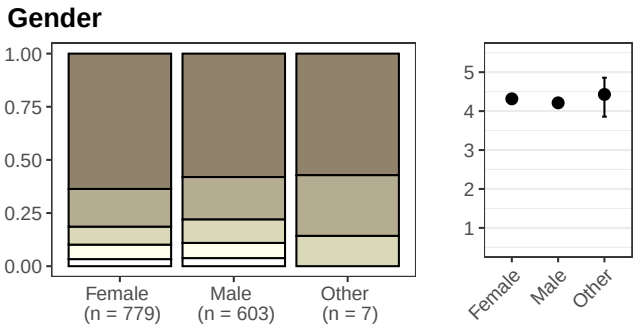
Age



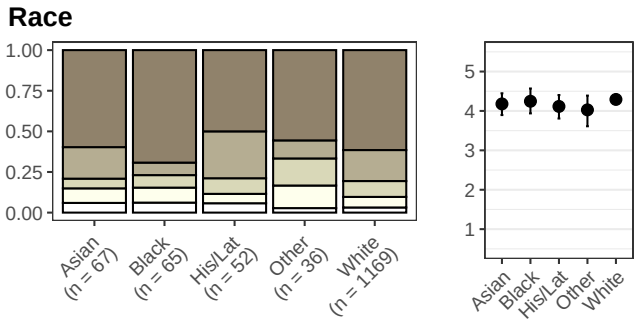
Age groups



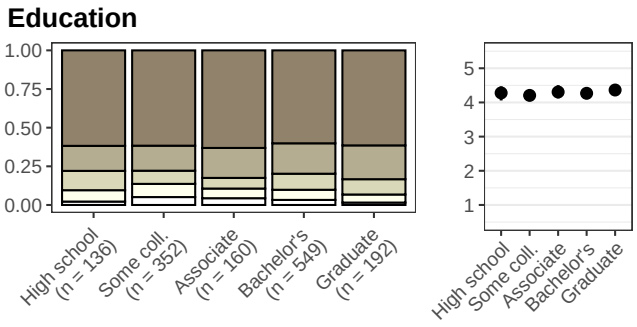
Gender



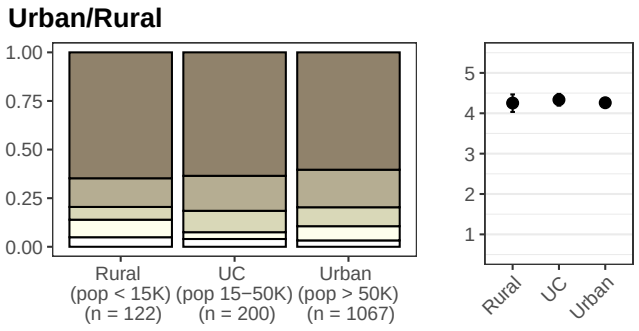
Race



Education

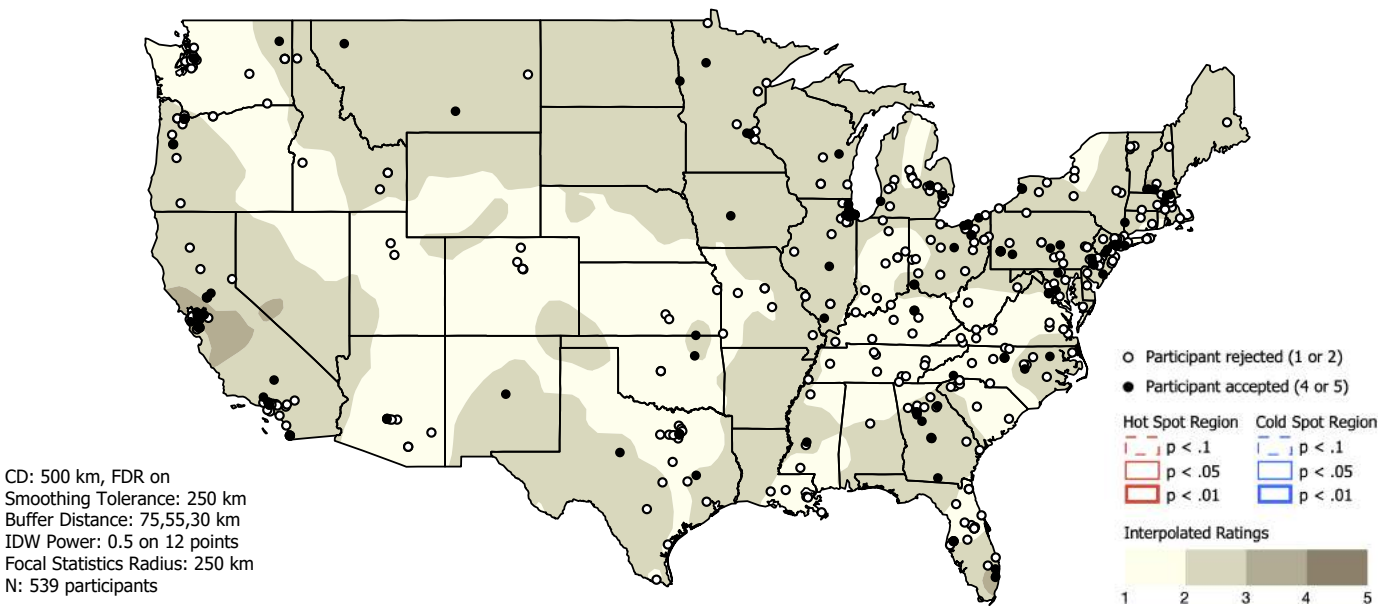


Urban/Rural



With FDR Correction

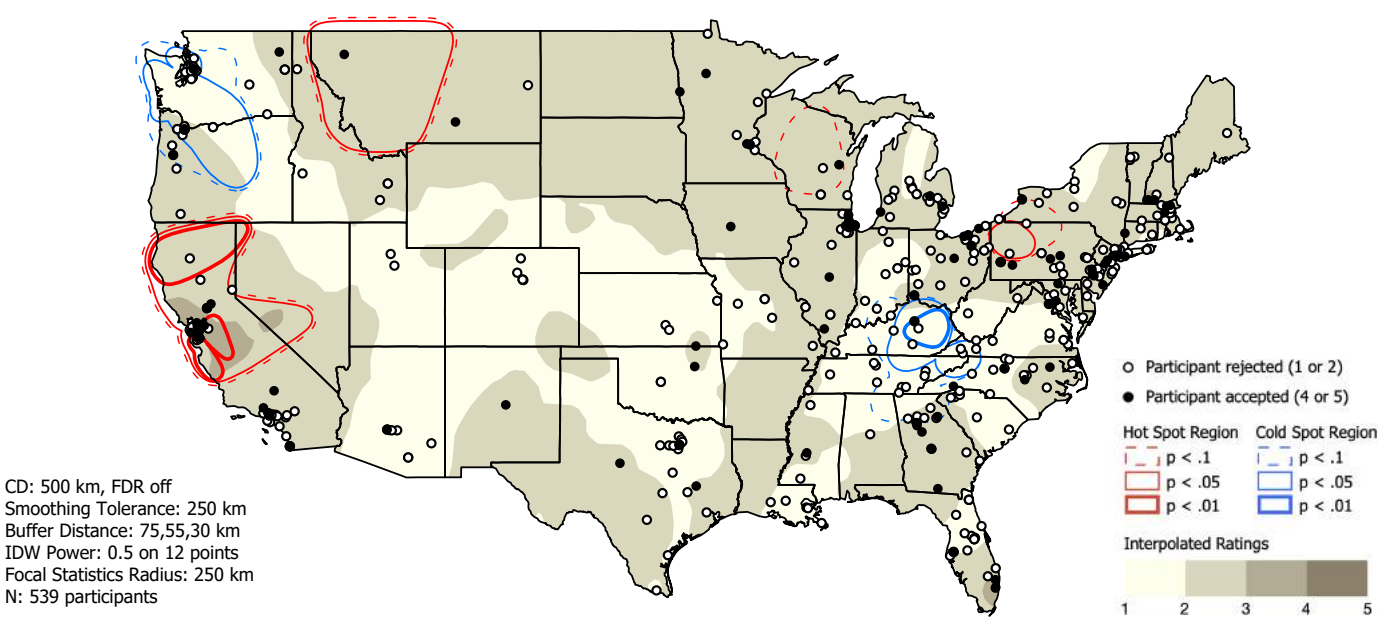
F1146: "Jordan has yet to read it, and so does Pat."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

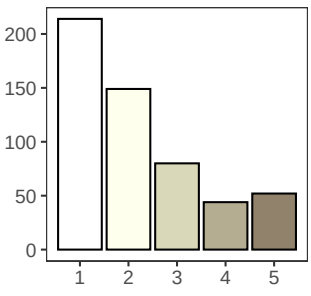
Without FDR Correction: Interpret with caution

F1146: "Jordan has yet to read it, and so does Pat."

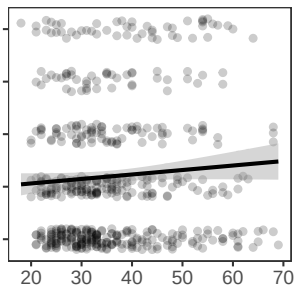


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

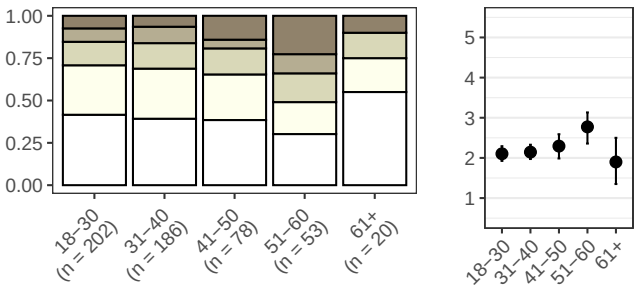
Judgments



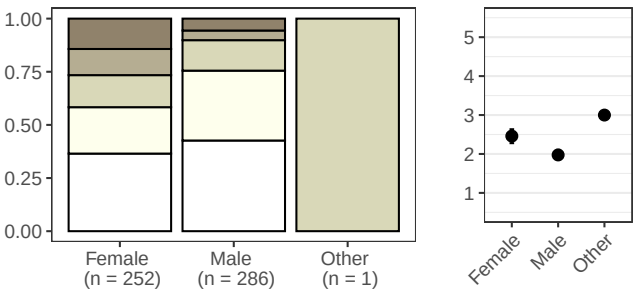
Age



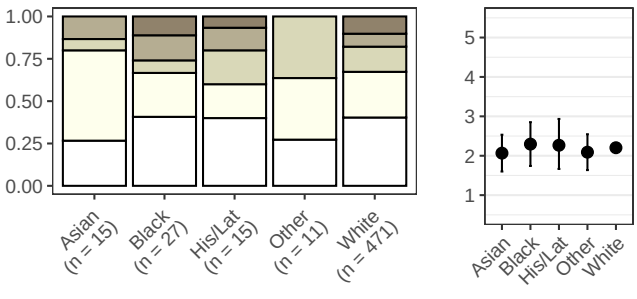
Age groups



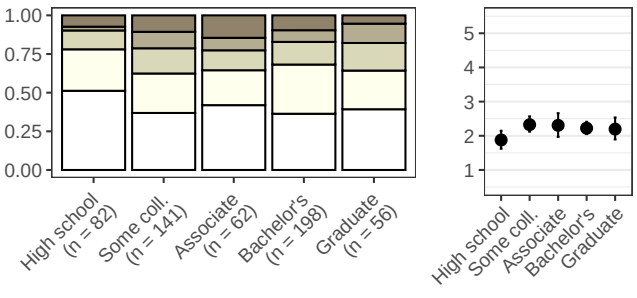
Gender



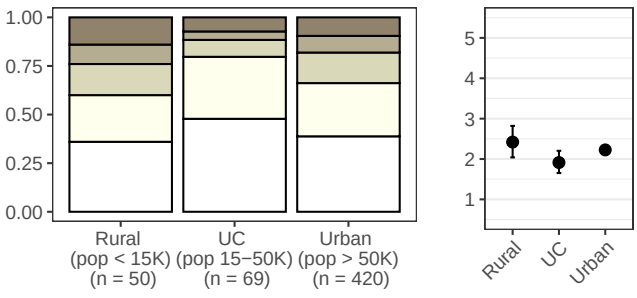
Race



Education

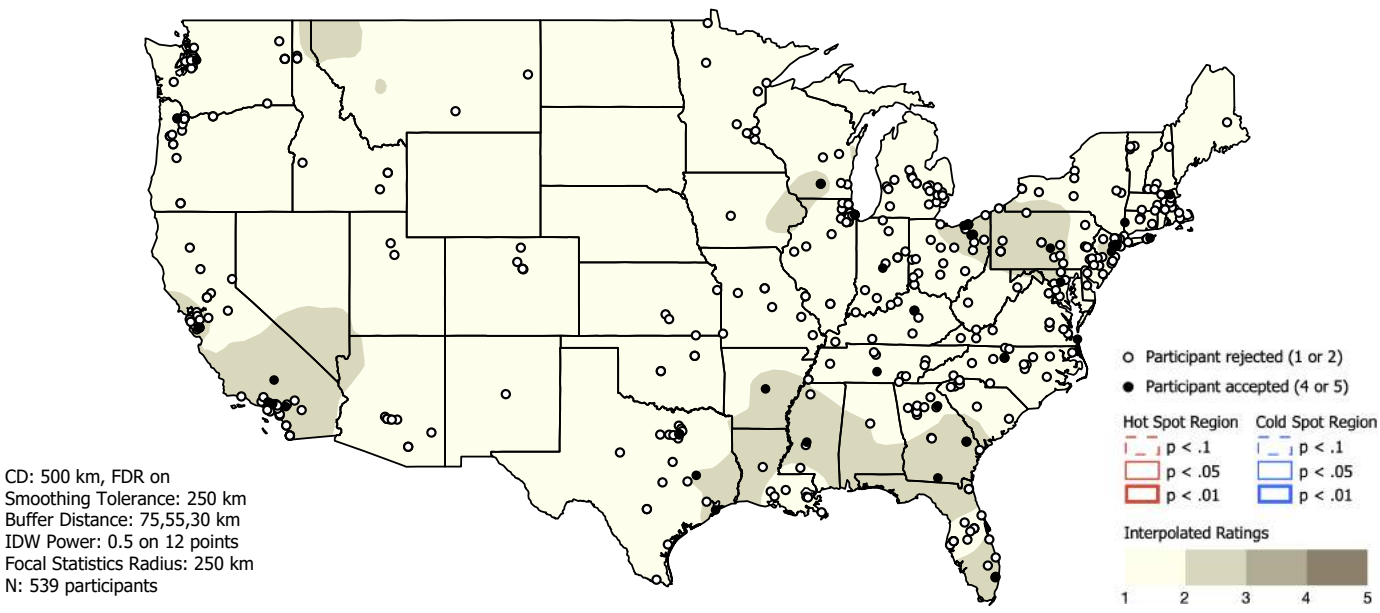


Urban/Rural



With FDR Correction

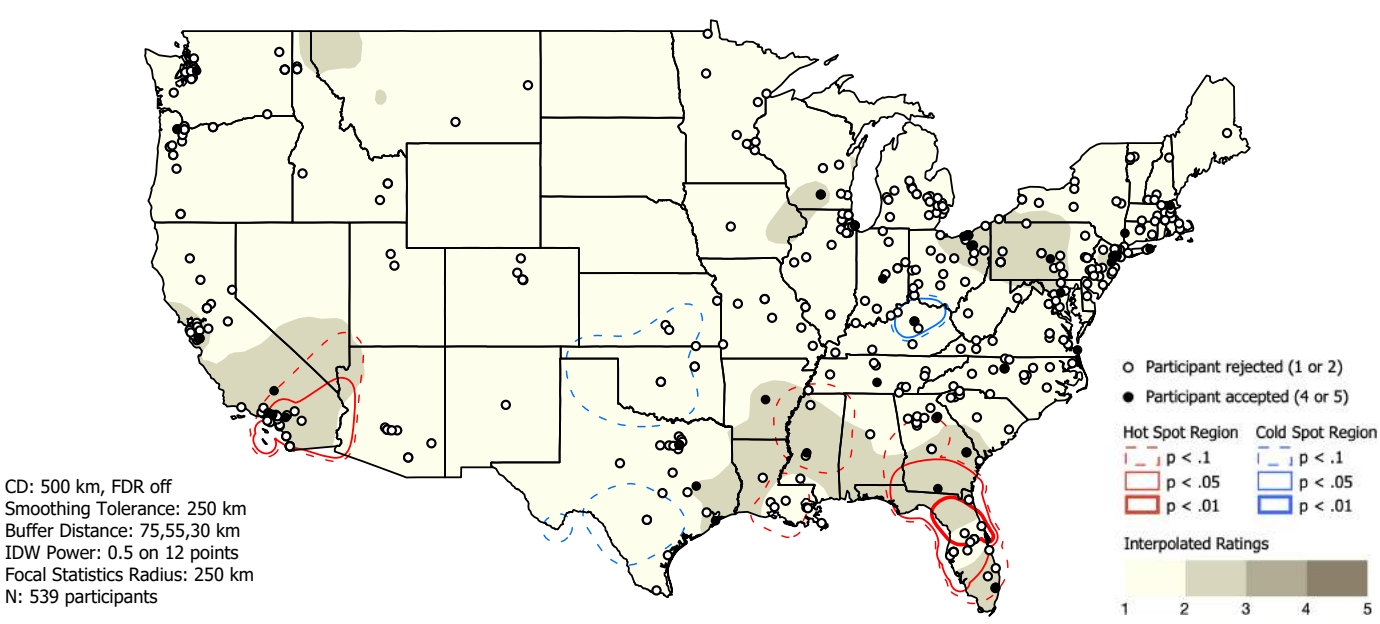
F1147: "Jordan has yet to read it, and neither does Pat."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

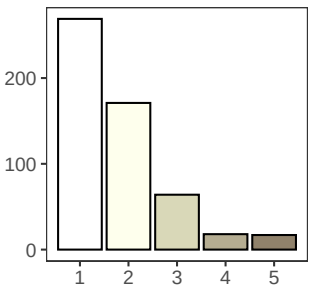
Without FDR Correction: Interpret with caution

F1147: "Jordan has yet to read it, and neither does Pat."

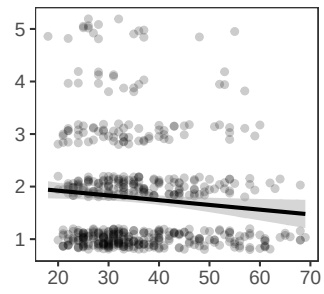


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

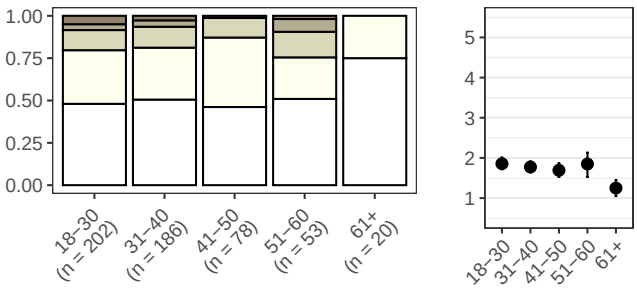
Judgments



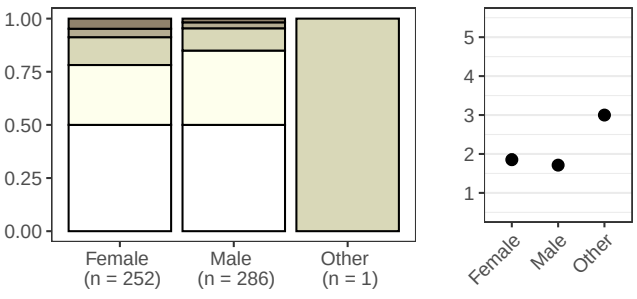
Age



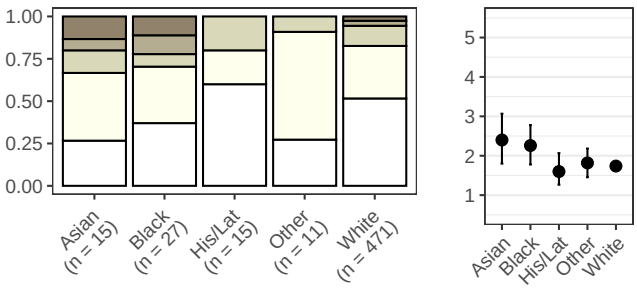
Age groups



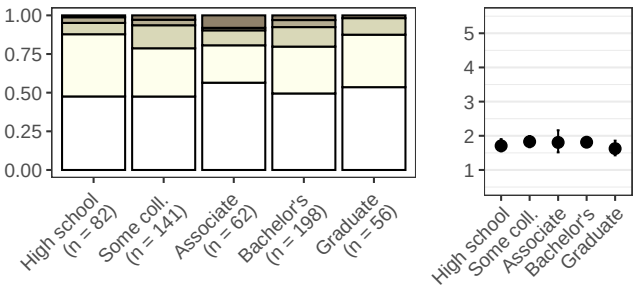
Gender



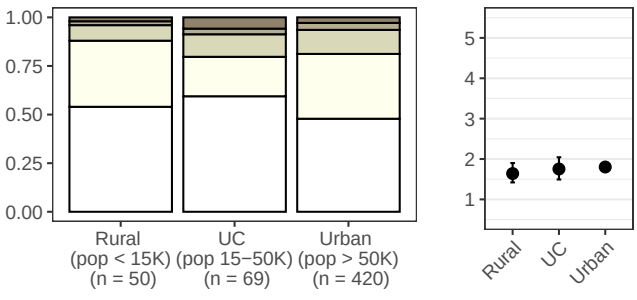
Race



Education

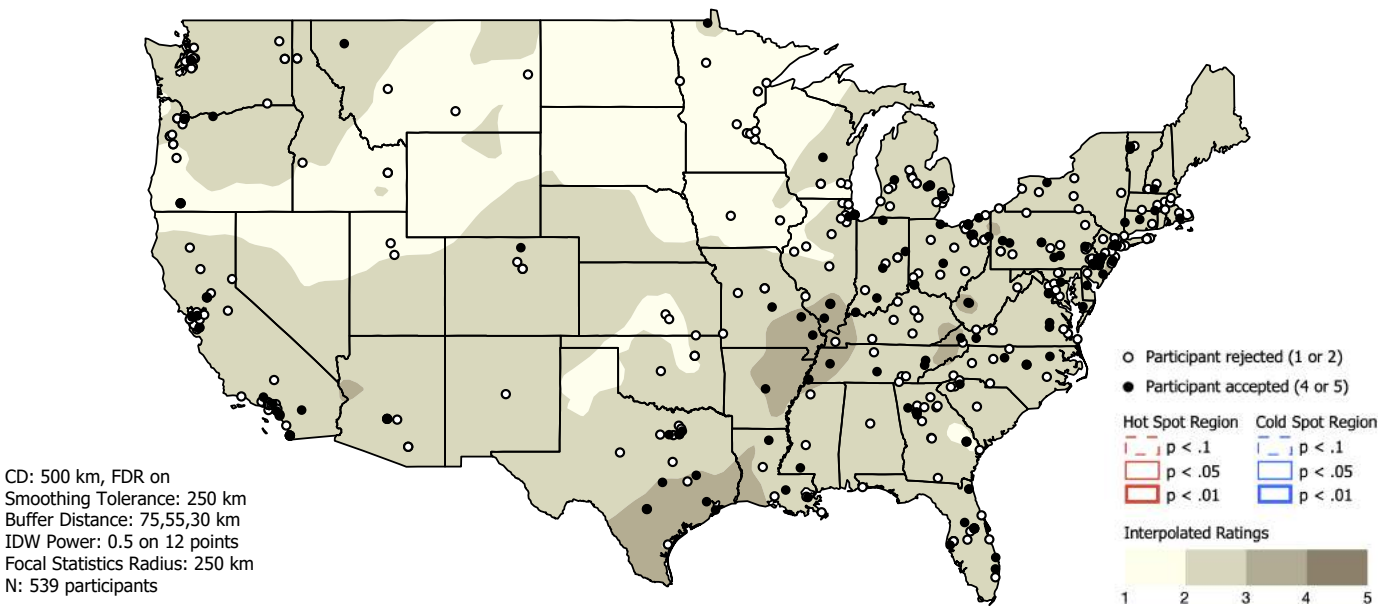


Urban/Rural



With FDR Correction

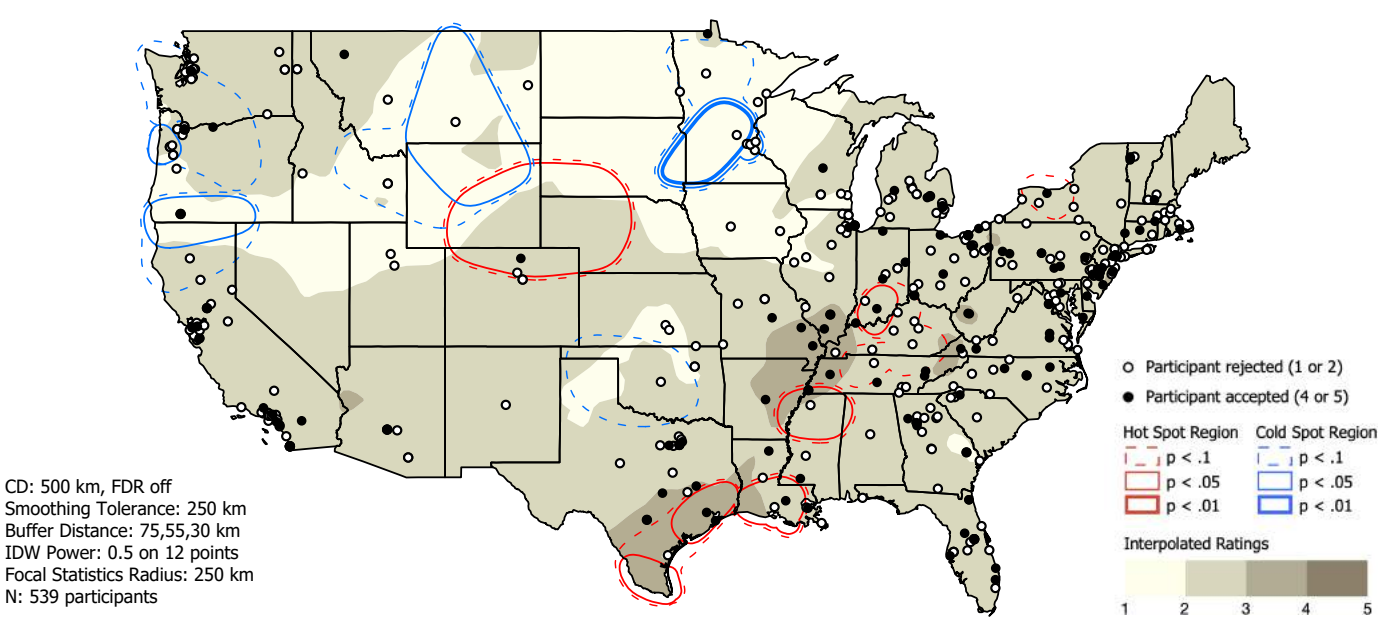
F1150: "John has yet to eat dinner, I don't think."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

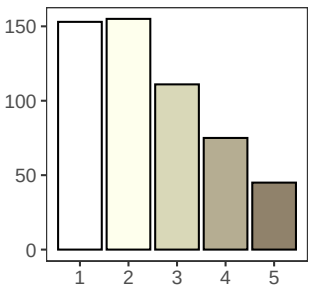
Without FDR Correction: Interpret with caution

F1150: "John has yet to eat dinner, I don't think."

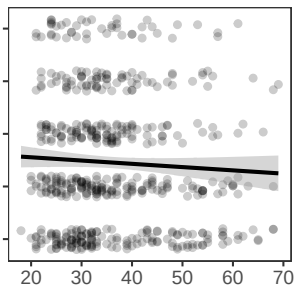


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

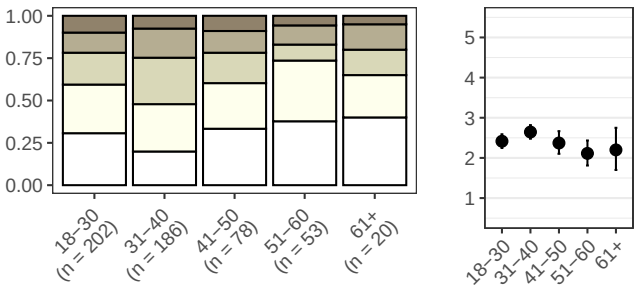
Judgments



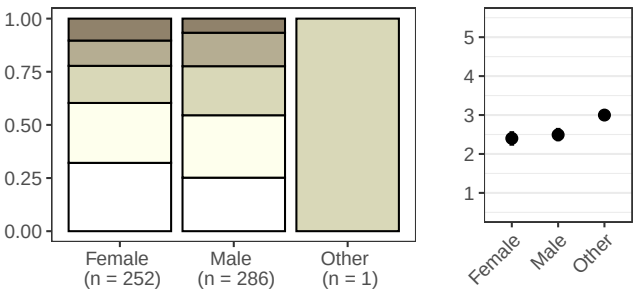
Age



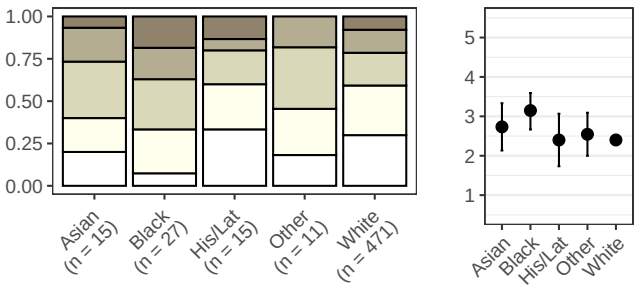
Age groups



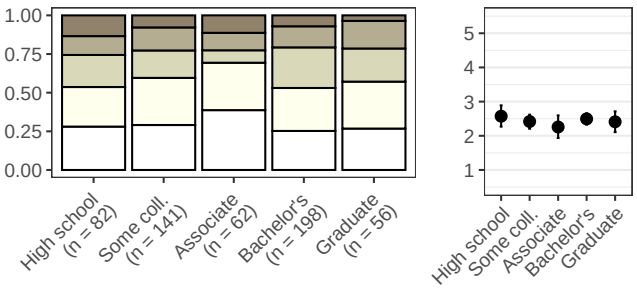
Gender



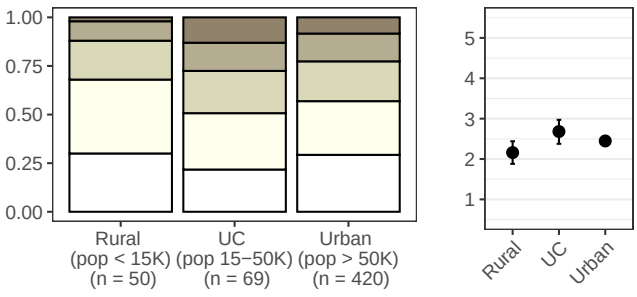
Race



Education



Urban/Rural



3.3 *Got yet to* and *have still to*

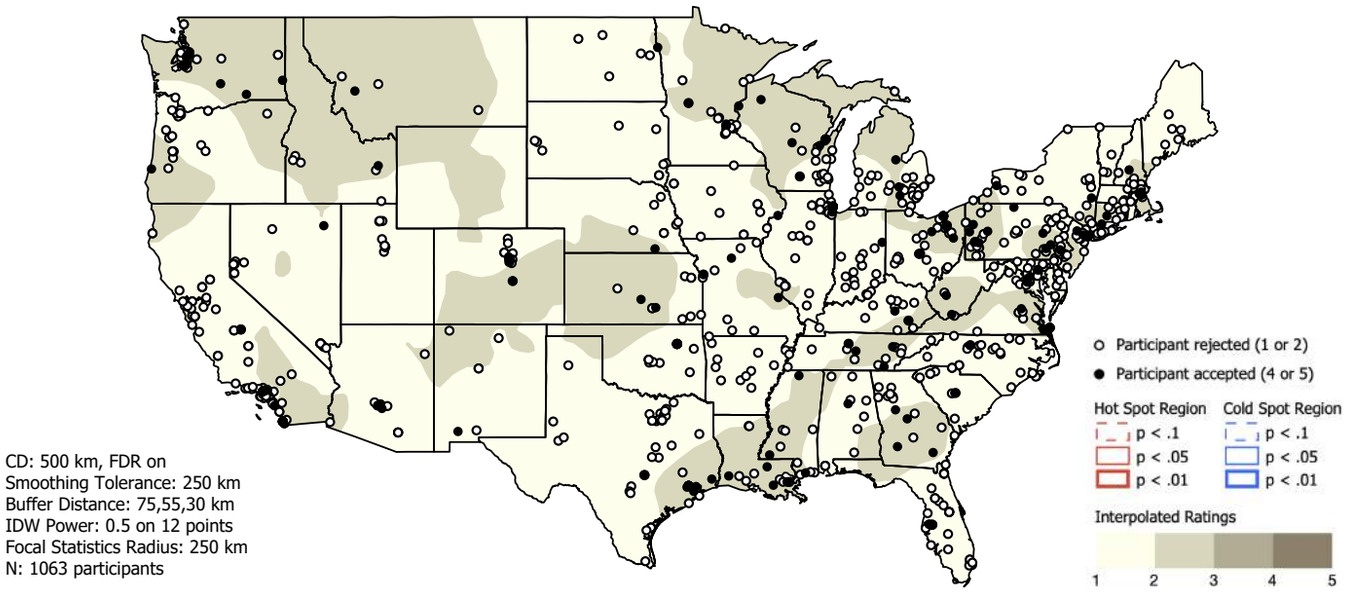
Through the course of our investigation of the HYT construction, it was discovered that *got yet to* and *have still to* exist for some speakers. Tyler and Wood (2019) discuss the implications of this more broadly. The sentences in (11) were included to test these constructions.

(11)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1061	You've got yet to visit your grandmother.	1063	1.91	1.15	5, 5b
F1126	We've got yet to catch whoever did this.	303	2.08	1.22	7
F1127	You've got yet to visit Grandpa, haven't you?	303	1.83	1.06	7
F1128	You've got yet to visit Grandpa, don't you?	303	1.79	1.07	7
F1130	Mr. Brown still has still to reply to my email.	303	2.15	1.51	7

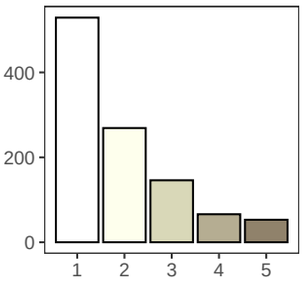
The maps below show that these sentences are not widely accepted, though there is some variation. None of the variation was picked out as regionally significant in the hot spot test with FDR correction. Other than 1061, there might not be enough data to reliably detect any regional patterns anyway, unless the pattern is very strong. For 1130, we show the non-FDR map, because the area picked out is roughly the region that shows up in some of the other HYT sentences, particularly the *do*-support sentences discussed earlier. Since this is a region of interest, it is possible that it reflects a real pattern, but at this point there is too little data to tell. Note that the two instances of *still* in 1130 were intentional, and were used to avoid a reading where *have to* was understood as a modal (as in *Mr. Brown still has to reply to my email*). The intended reading of 1130 is 'Mr. Brown still has yet to reply to my email', roughly 'It is still the case that Mr. Brown has yet to reply to my email'. That is, the second *still*, for the relevant speakers, is interpreted more or less like *yet*, while the first *still* has its ordinary meaning.

F1061: "You've got yet to visit your grandmother."

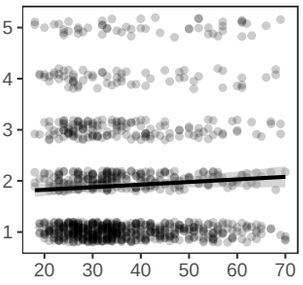


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

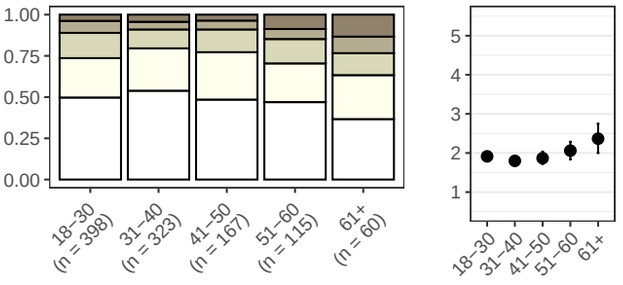
Judgments



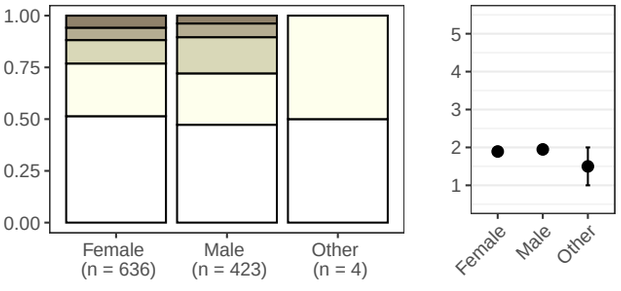
Age



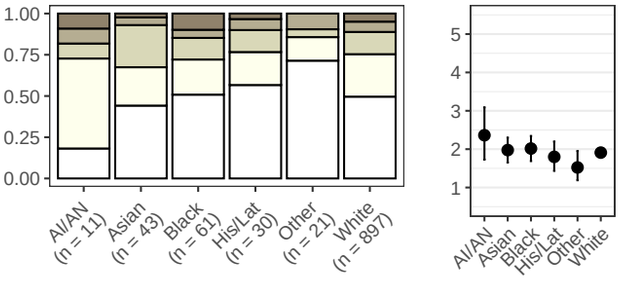
Age groups



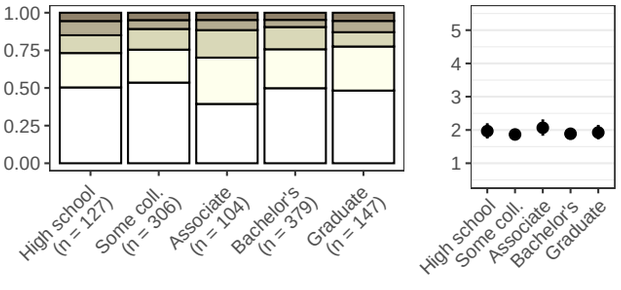
Gender



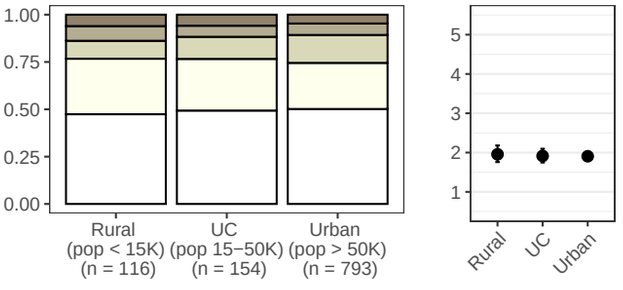
Race



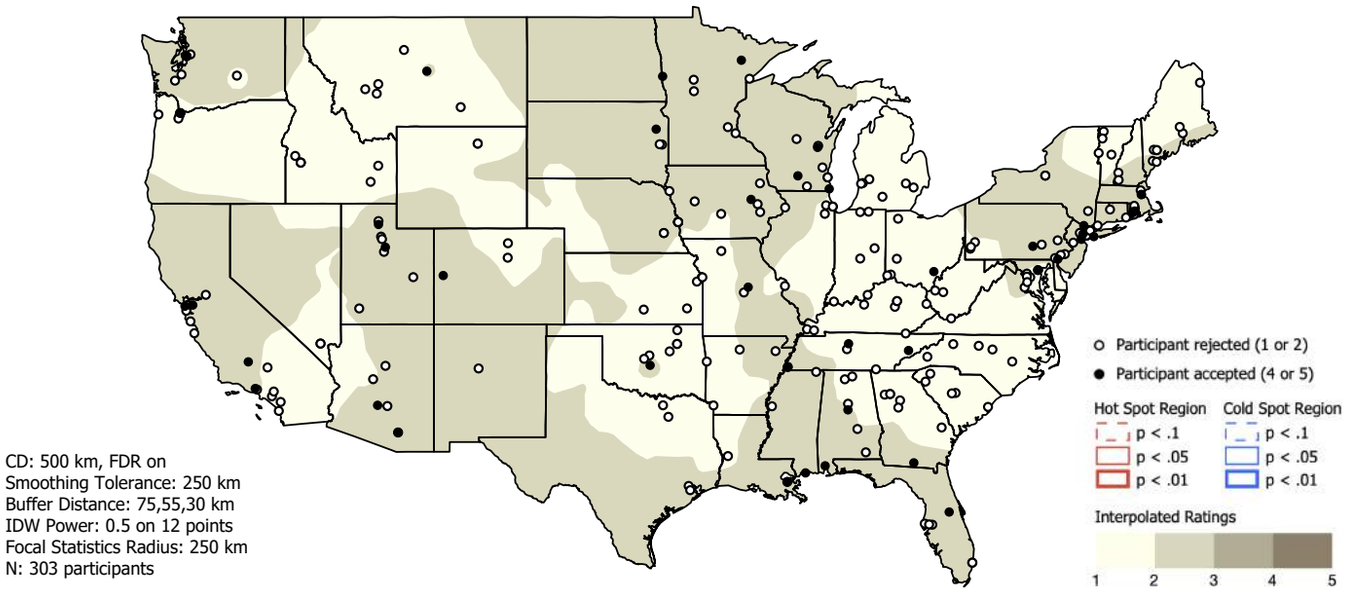
Education



Urban/Rural

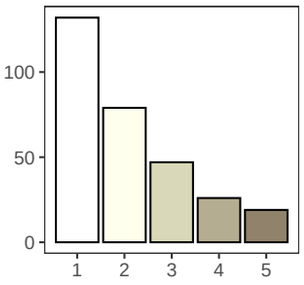


F1126: "We've got yet to catch whoever did this."

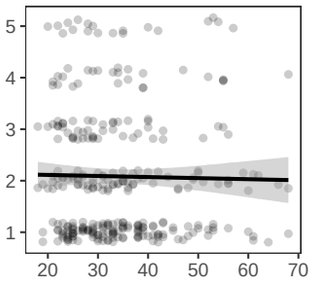


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

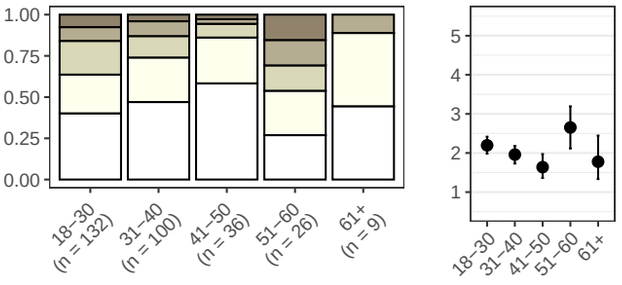
Judgments



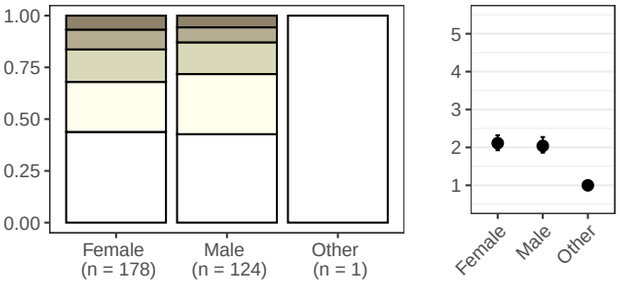
Age



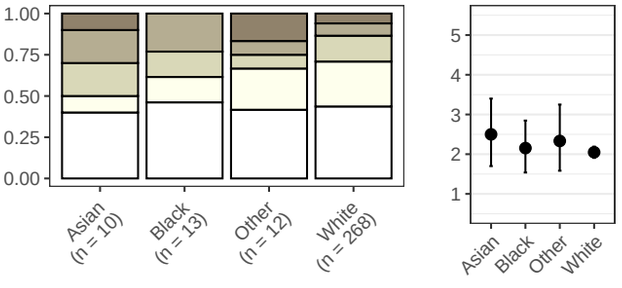
Age groups



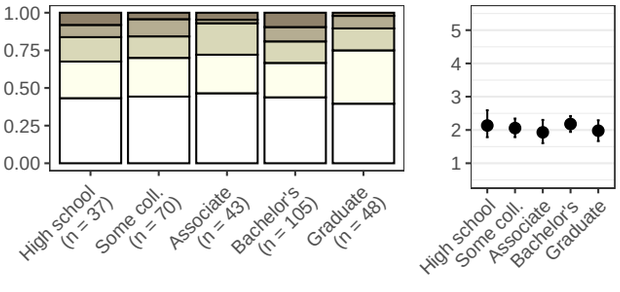
Gender



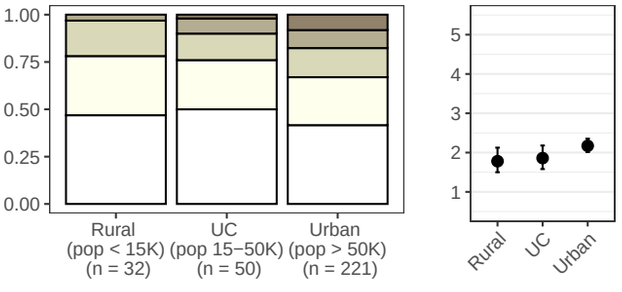
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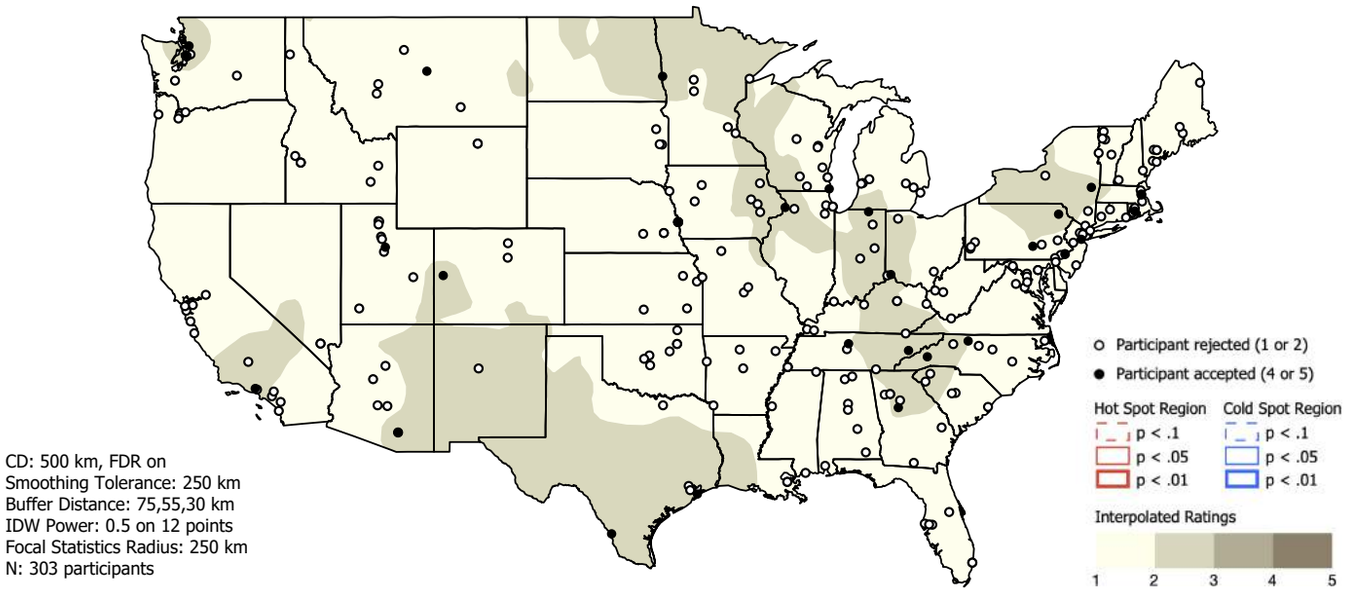
Education



Urban/Rural

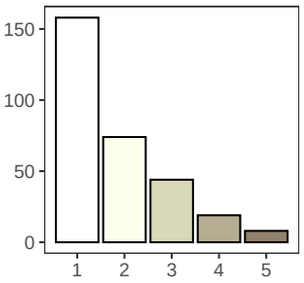


F1127: "You've got yet to visit Grandpa, haven't you?"

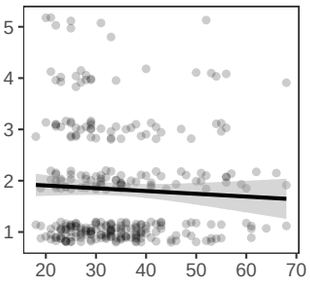


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

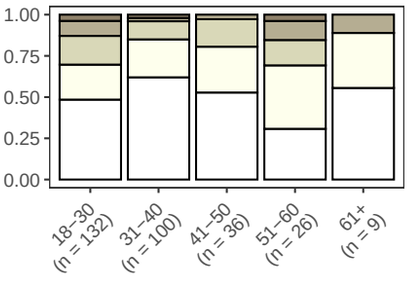
Judgments

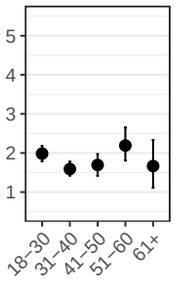


Age

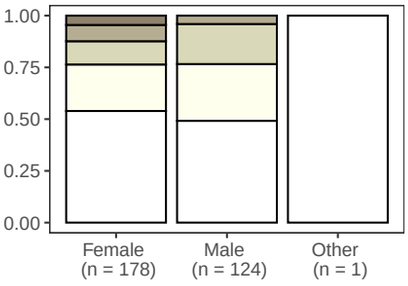


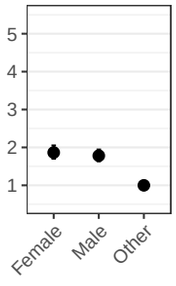
Age groups



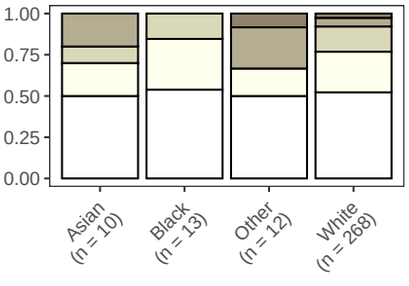


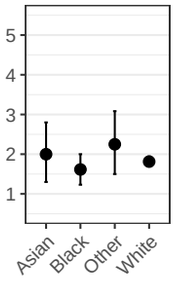
Gender



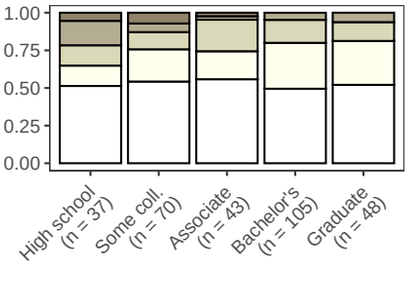


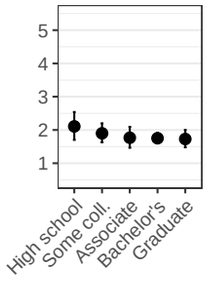
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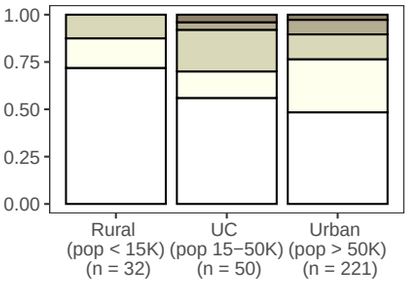


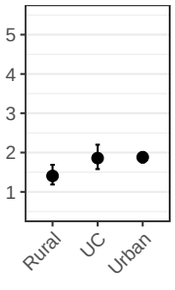
Education



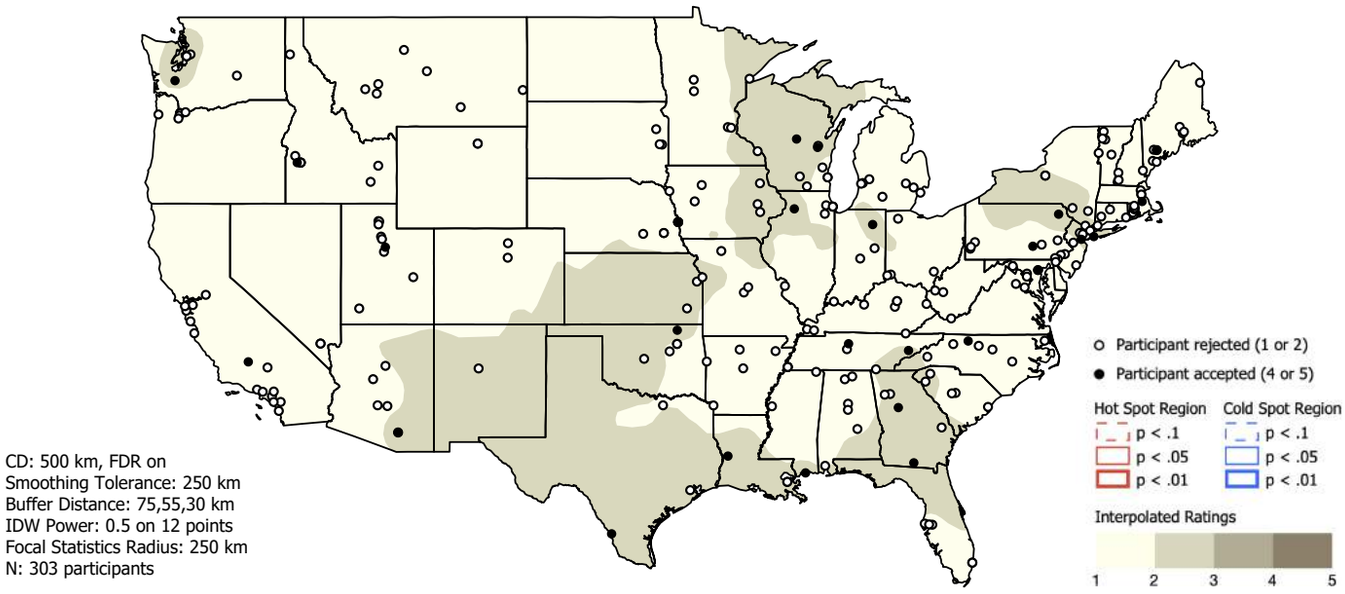


Urban/Rural



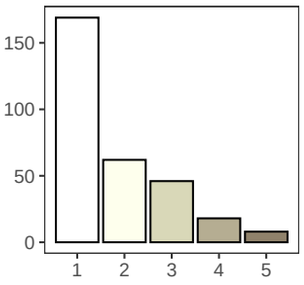


F1128: "You've got yet to visit Grandpa, don't you?"

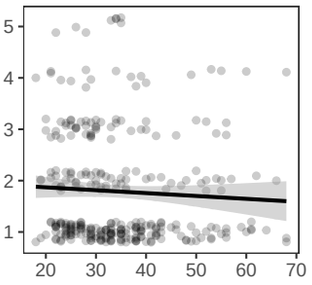


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

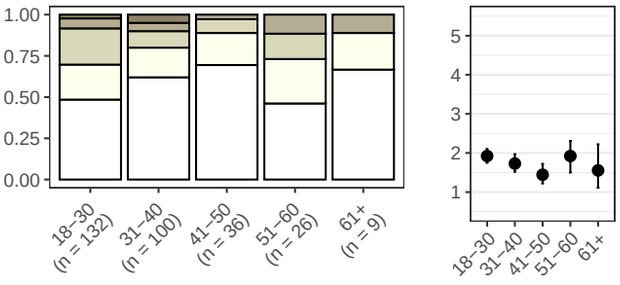
Judgments



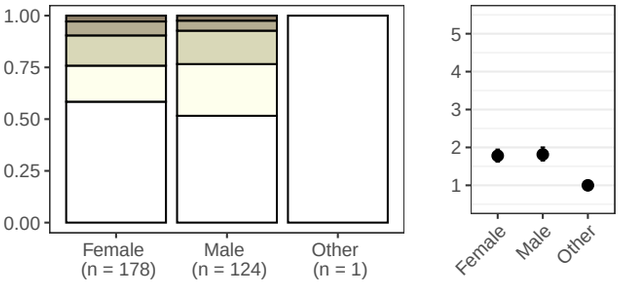
Age



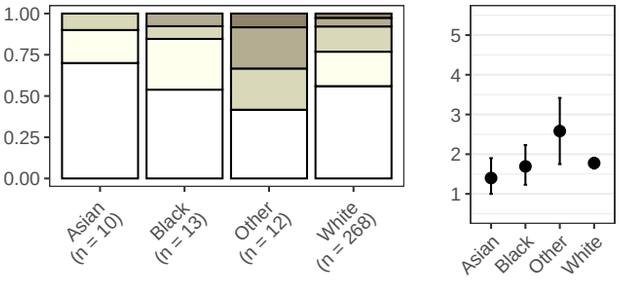
Age groups



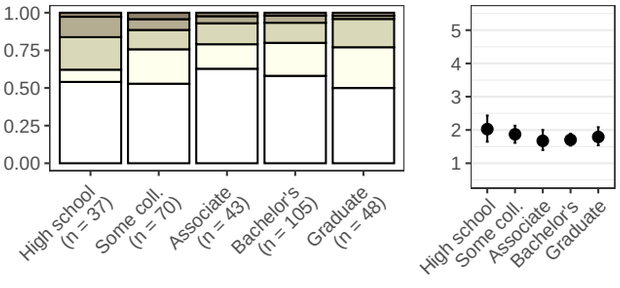
Gender



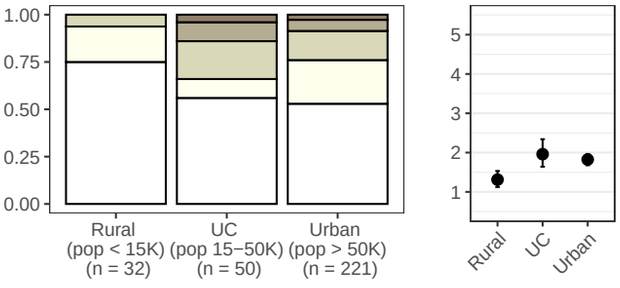
Race



Education

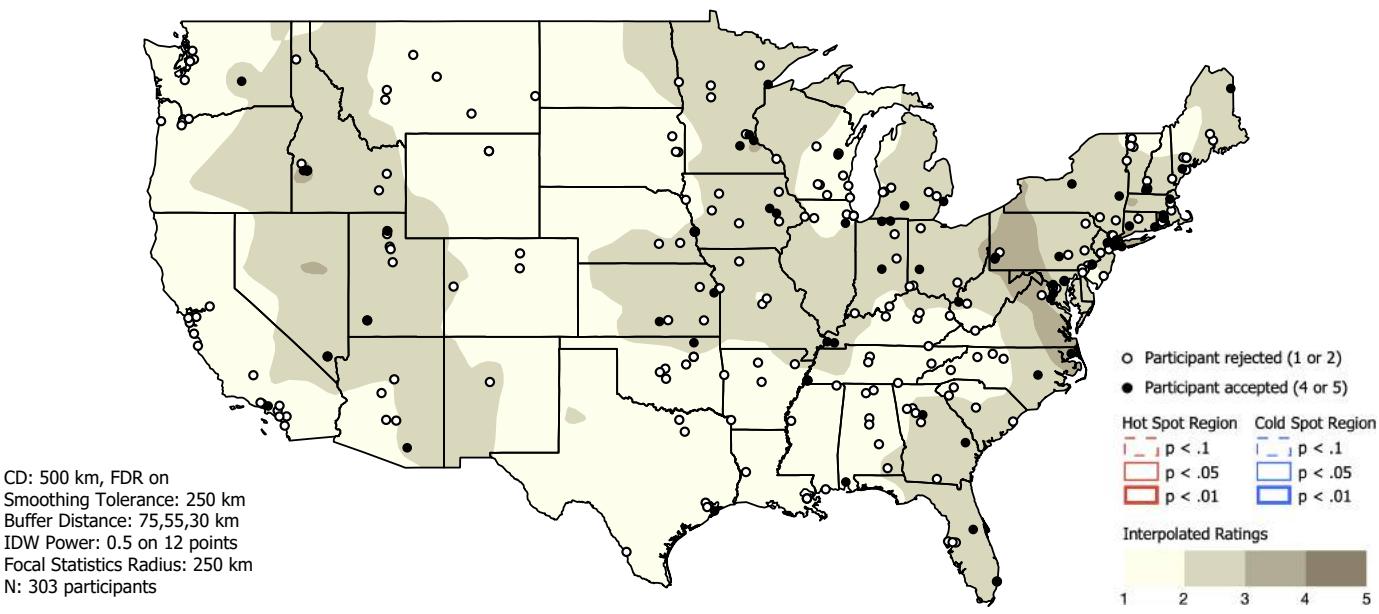


Urban/Rural



With FDR Correction

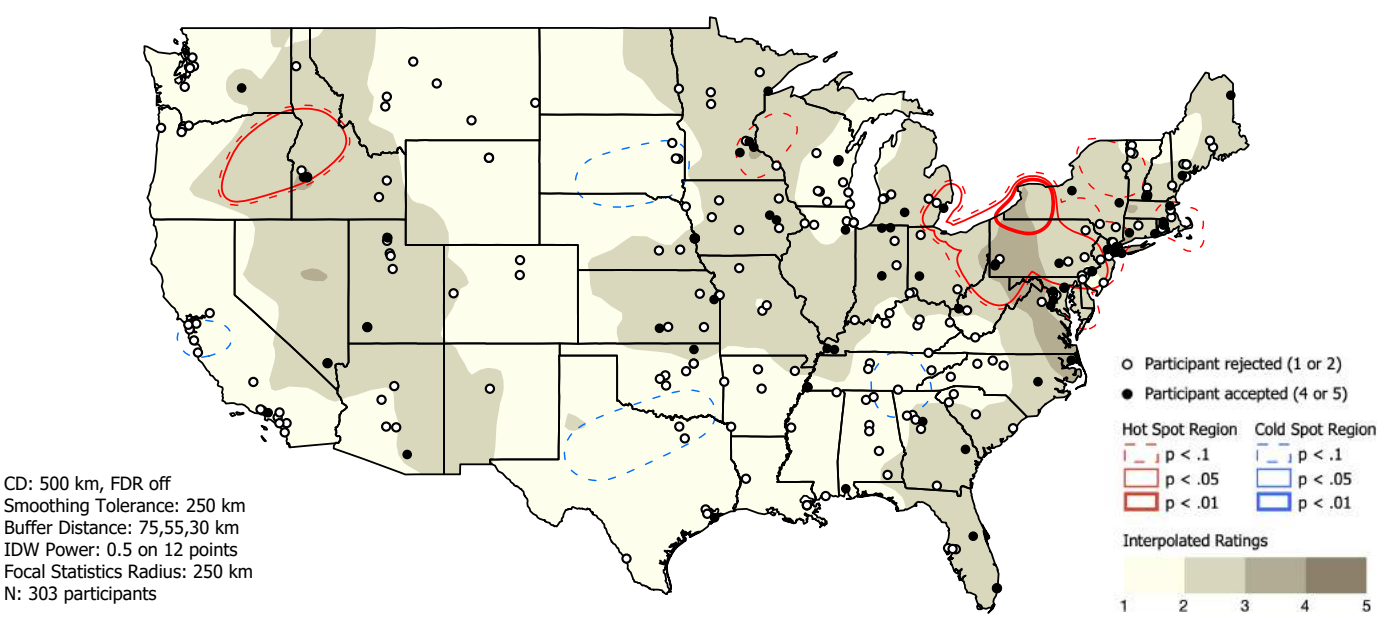
F1130: "Mr. Brown still has still to reply to my email."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

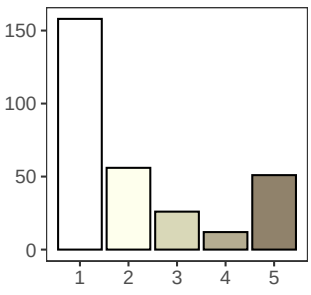
Without FDR Correction: Interpret with caution

F1130: "Mr. Brown still has still to reply to my email."

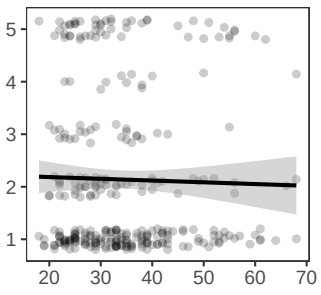


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

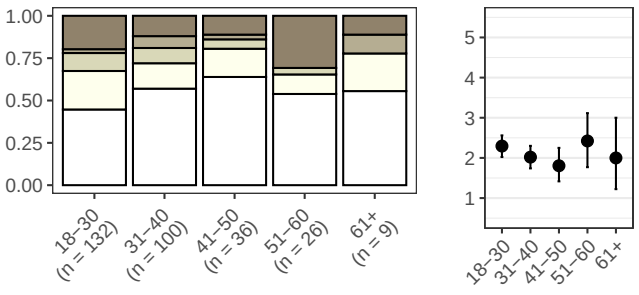
Judgments



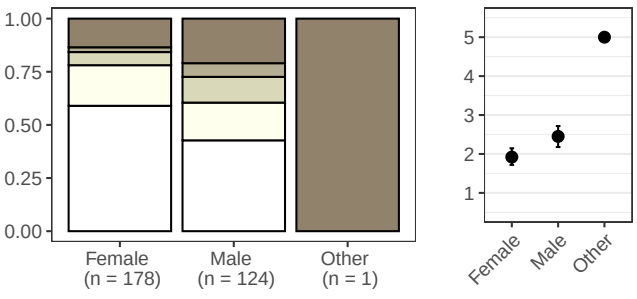
Age



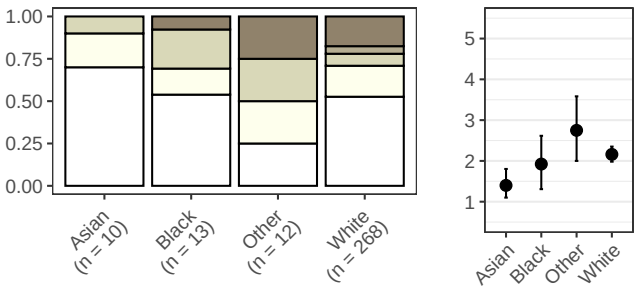
Age groups



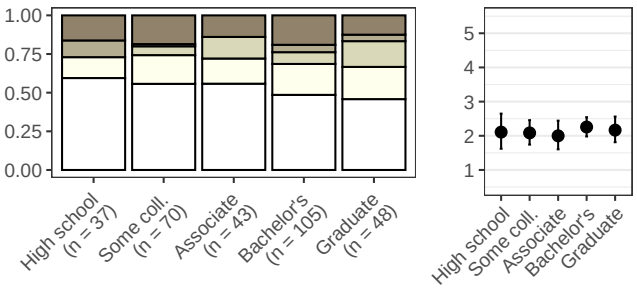
Gender



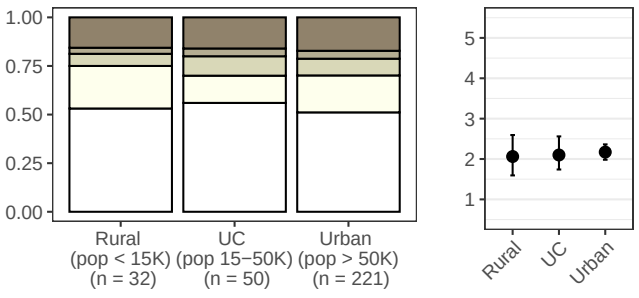
Race



Education



Urban/Rural



4 Repeated Pilots: *Wicked*, *hella*, *so don't I*, *done my homework*

In this section we present some constructions that had two or more sentences repeated across various surveys as pilot sentences.

4.1 *Wicked*

We included the *wicked* sentences in (12) in surveys 6 and 6b.

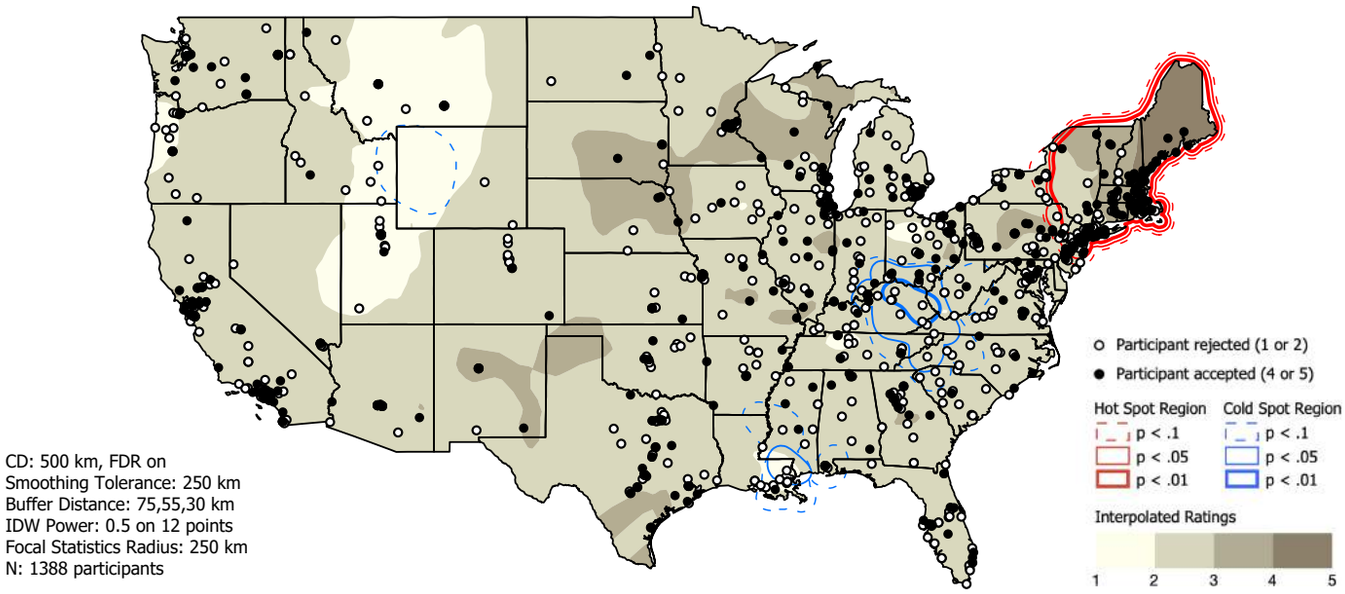
(12)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1086	Jessie likes that band a wicked lot.	1388	2.71	1.26	6, 6b
F1087	I wicked want to go to that concert.	1388	2.28	1.22	6, 6b
F1088	Jamie said that he's been wicked tired lately.	1389	3.69	1.29	6, 6b
F1090	Jordan wants to go there wicked bad.	1389	3.31	1.33	6, 6b
F1089	This coffee is wicked.	478	3.74	1.31	6
F1183	I don't think he's wicked good a singer.	911	1.89	1.12	6b

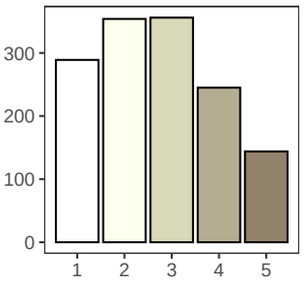
Previous maps of subsets of these data revealed hot spots in New England (Wood 2019b), and these are also found in the maps below for all except for 1089. Note that 1089 and 1183 are special cases, and should be considered separately. 1089 is an adjectival rather than intensifier use of *wicked*, and native speakers of the other sentences find it to be distinct in acceptability;[20] at best, it is a marked usage with an affected feel, unlike the intensifier usage. The regional variation was not statistically significant with the current parameters when the FDR correction was used. 1183 is meant to test whether *wicked good* can move to the left of the indefinite determiner, the way that *very good* can in similar contexts. This sentence also has a hot spot region covering New England, but it is smaller, weaker, and the overall sentence is much more marked.

[20] See Annear (2020) for an example of when this fact received some attention in popular media.

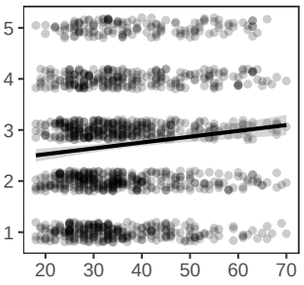
F1086: "Jessie likes that band a wicked lot."



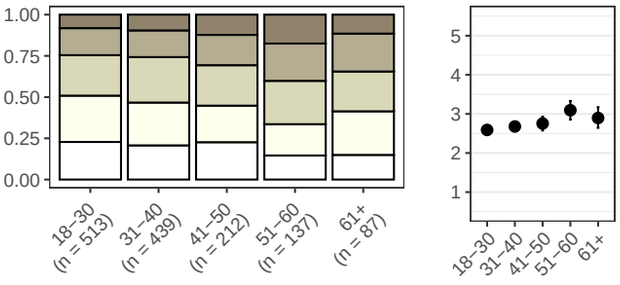
Judgments



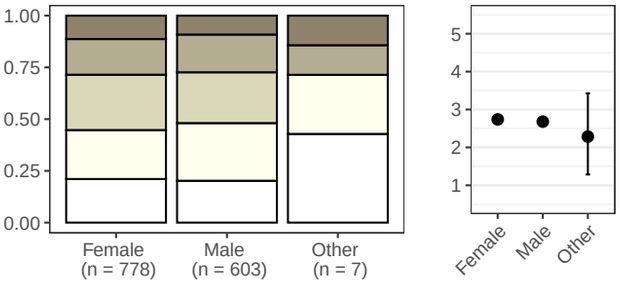
Age



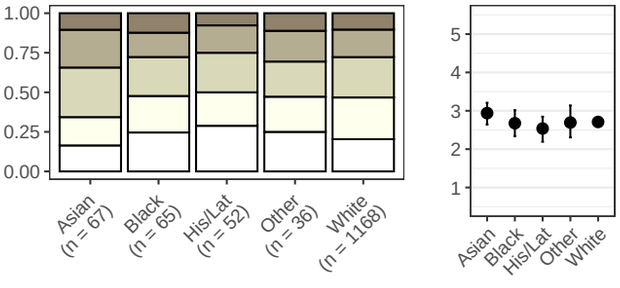
Age groups



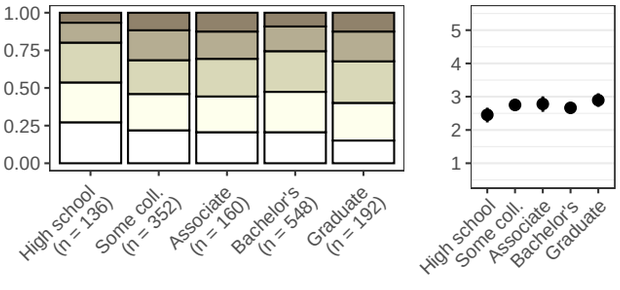
Gender



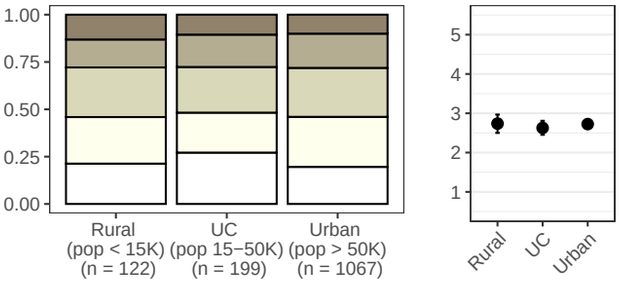
Race



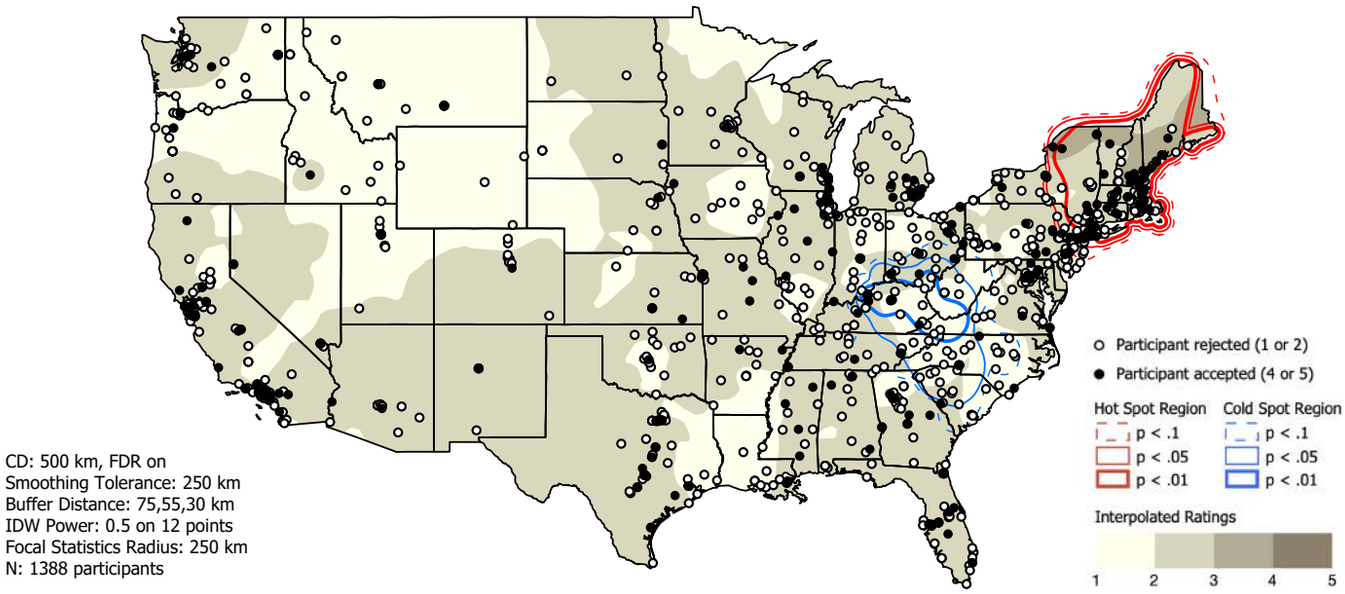
Education



Urban/Rural

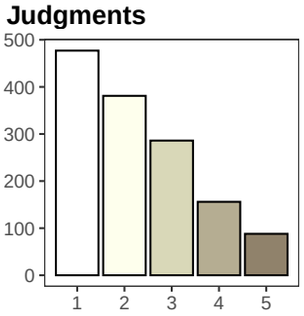


F1087: "I wicked want to go to that concert."

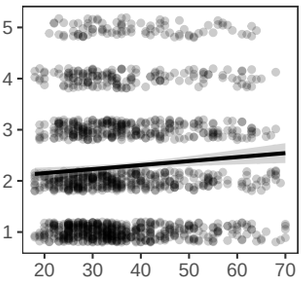


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1388 participants

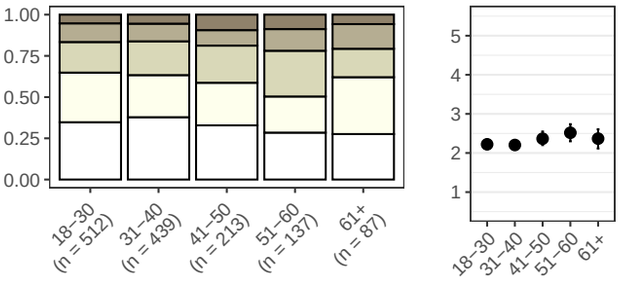
Judgments



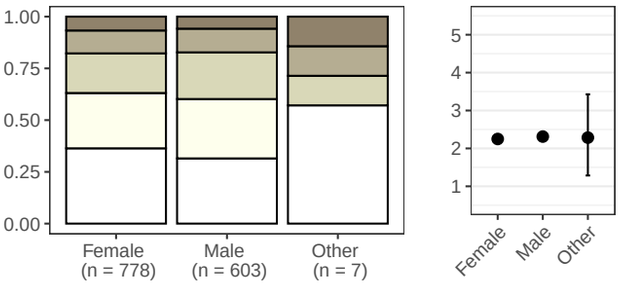
Age



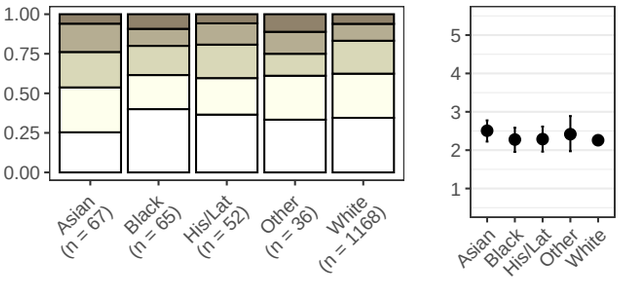
Age groups



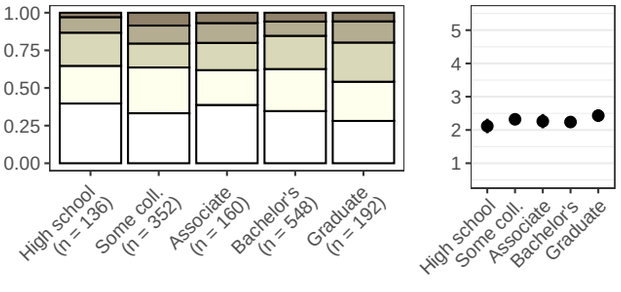
Gender



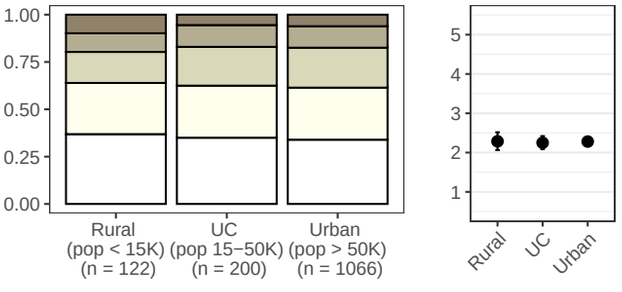
Race



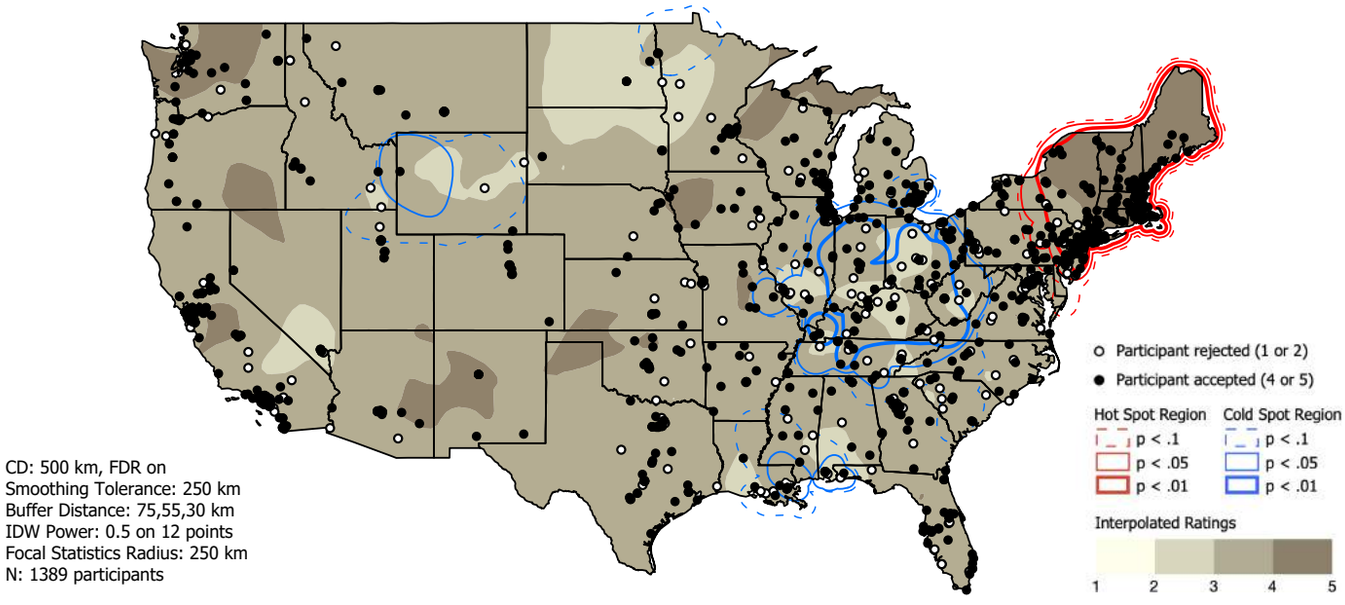
Education



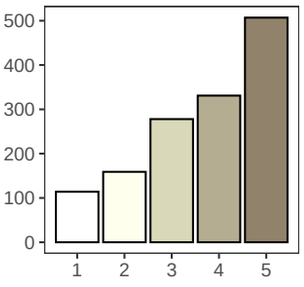
Urban/Rural



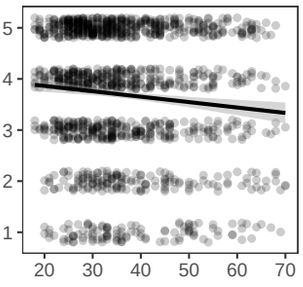
F1088: "Jamie said that he's been wicked tired lately."



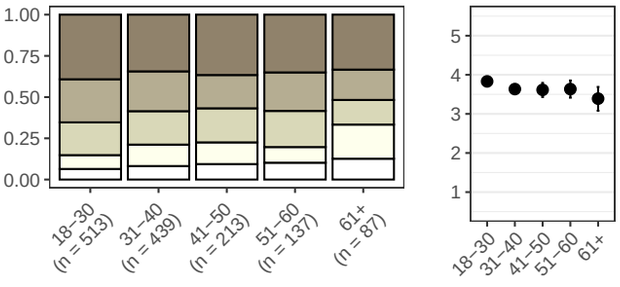
Judgments



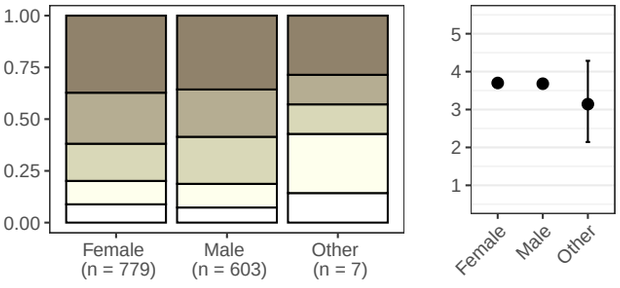
Age



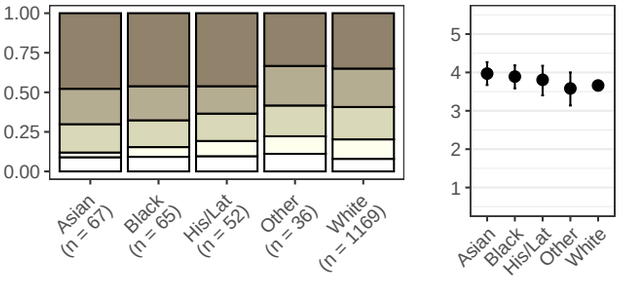
Age groups



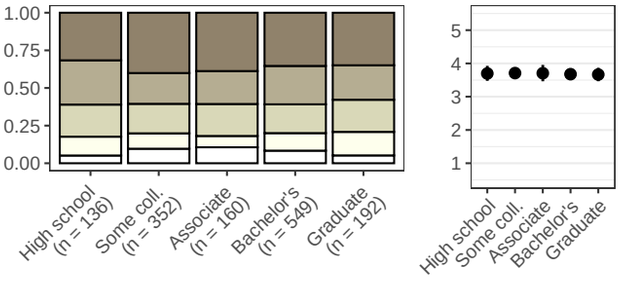
Gender



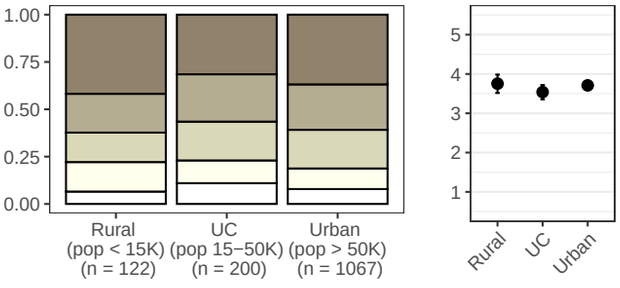
Race



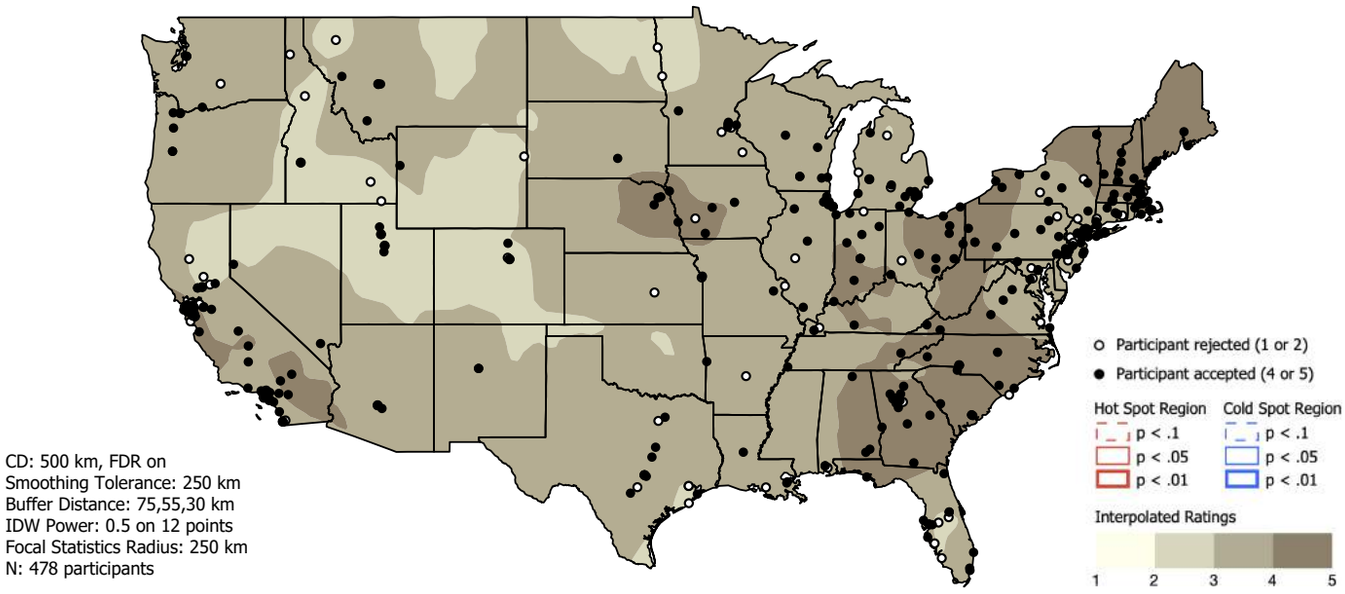
Education



Urban/Rural

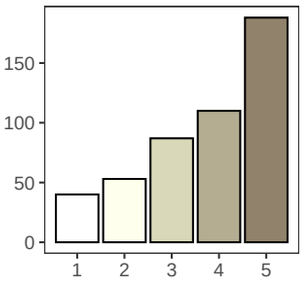


F1089: "This coffee is wicked."

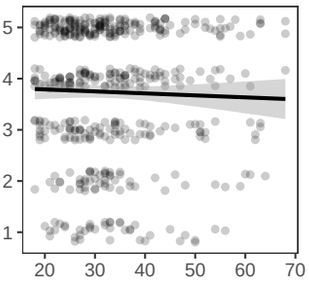


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 478 participants

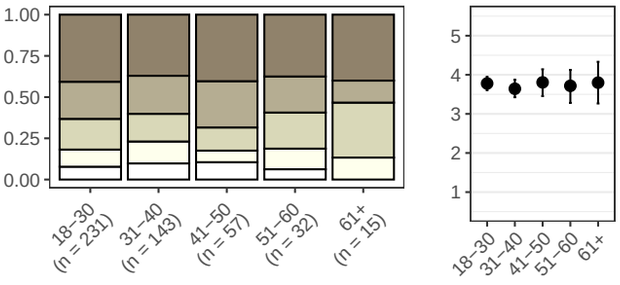
Judgments



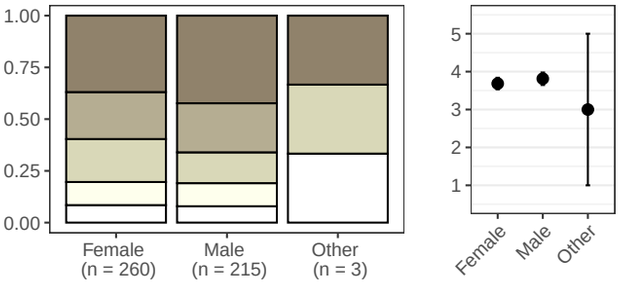
Age



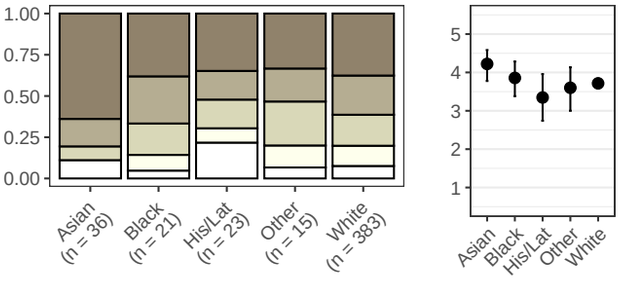
Age groups



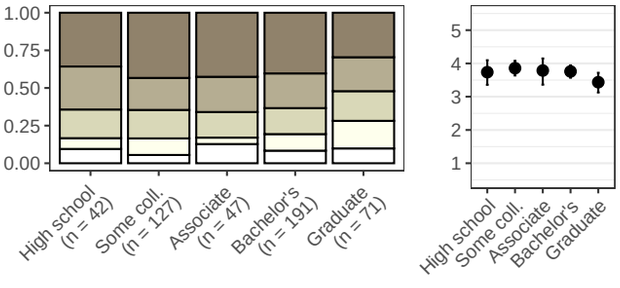
Gender



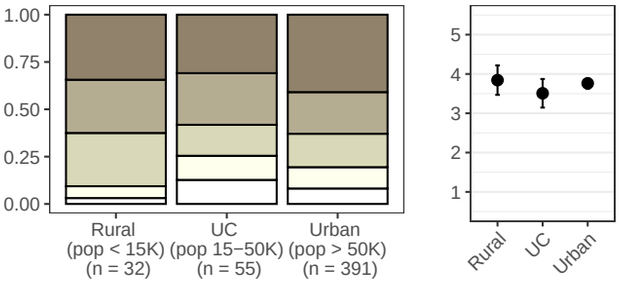
Race



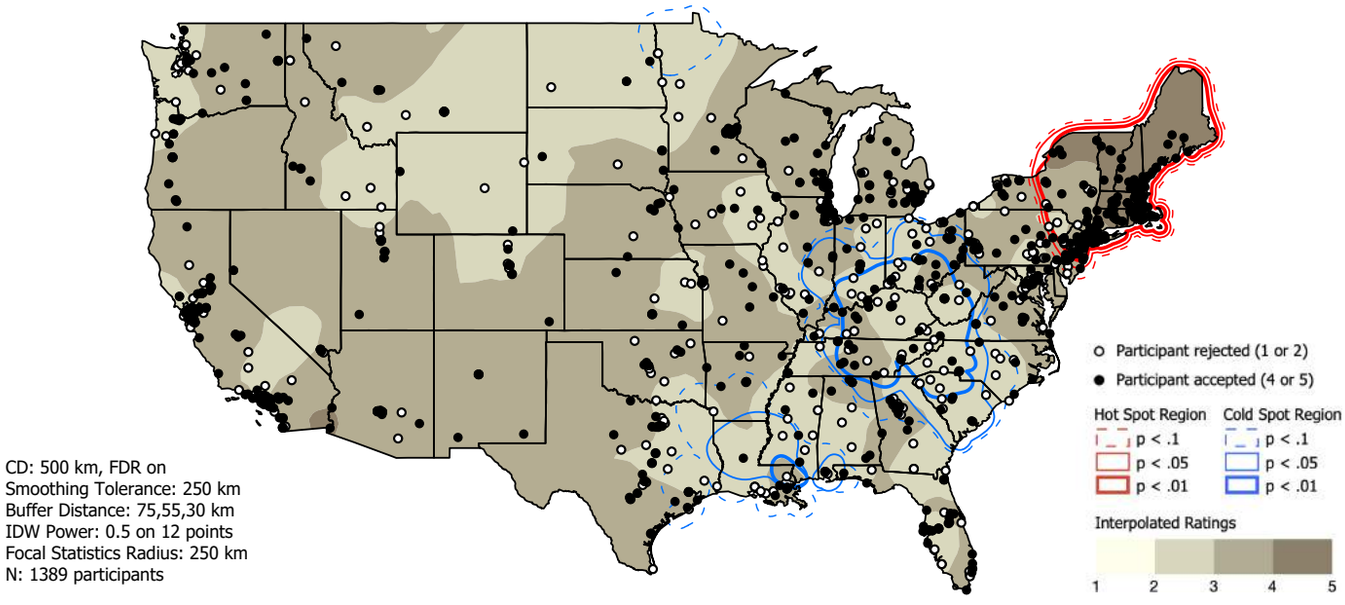
Education



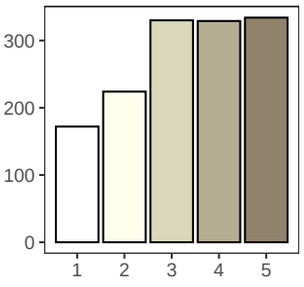
Urban/Rural



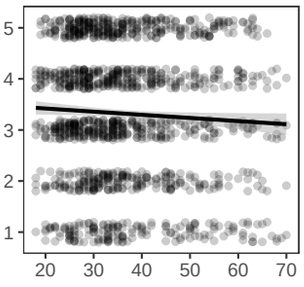
F1090: "Jordan wants to go there wicked bad."



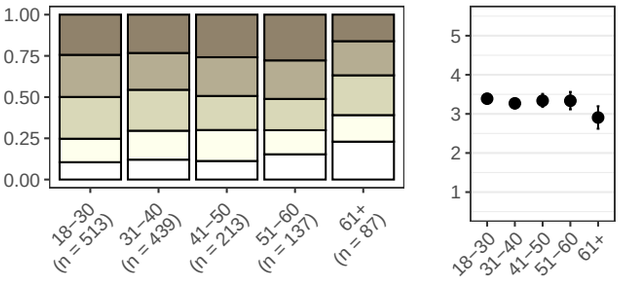
Judgments



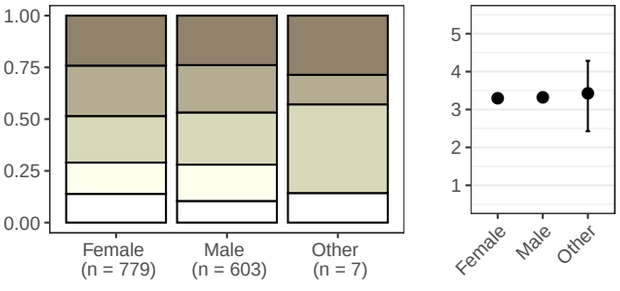
Age



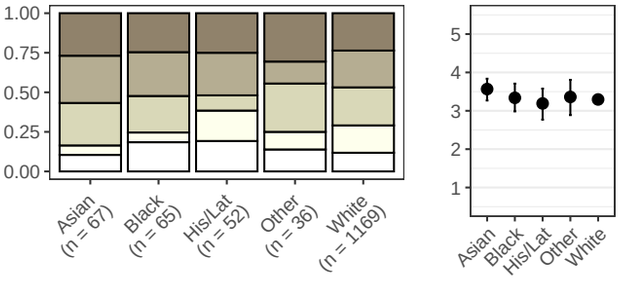
Age groups



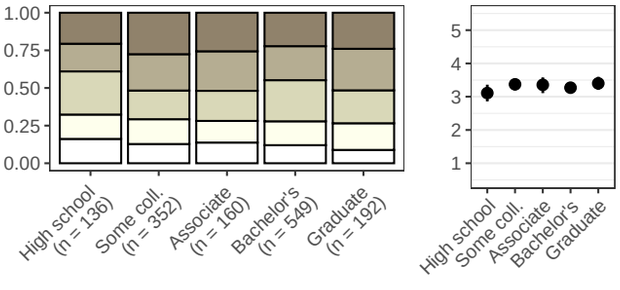
Gender



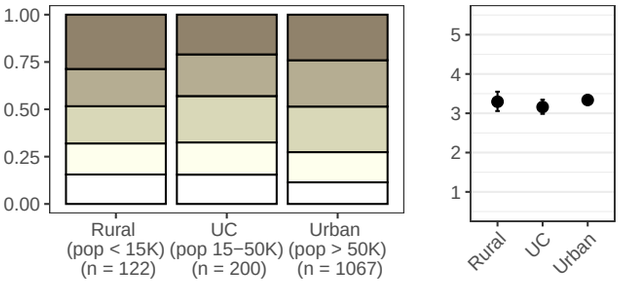
Race



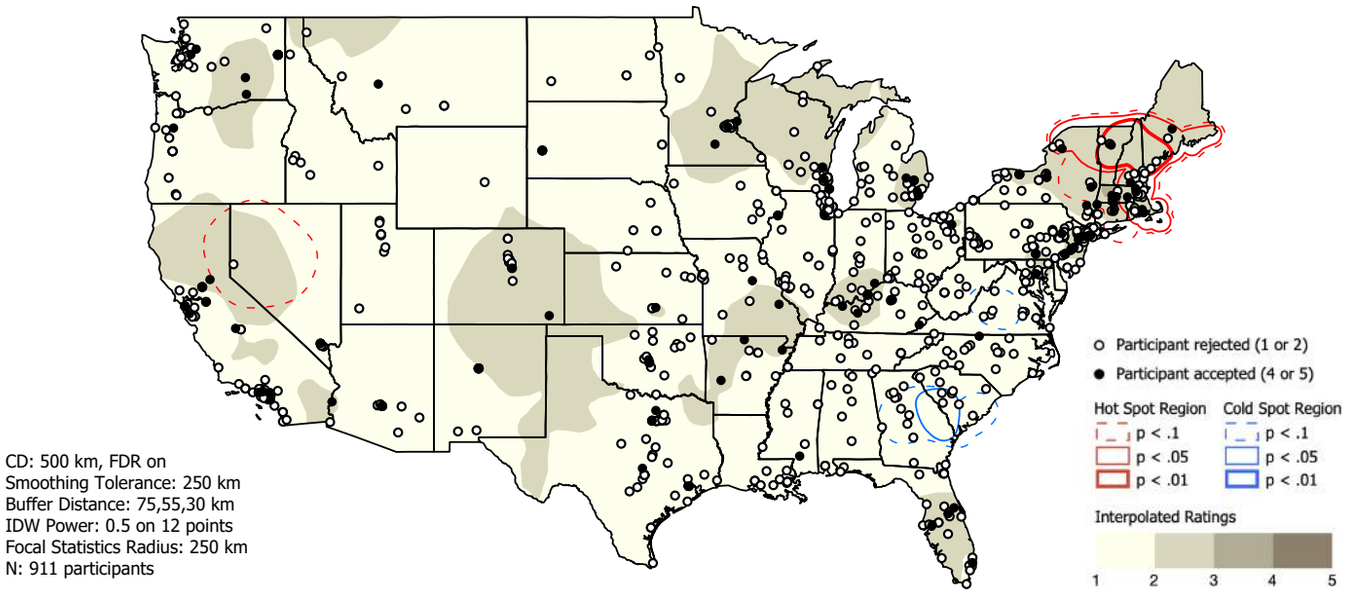
Education



Urban/Rural

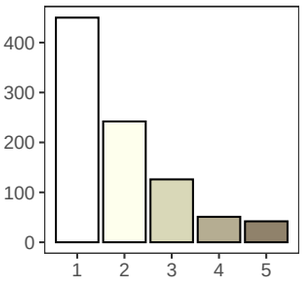


F1183: "I don't think he's wicked good a singer."

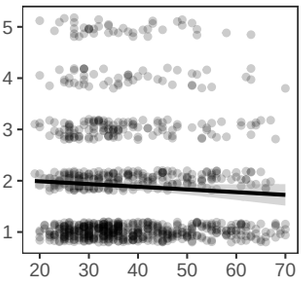


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 911 participants

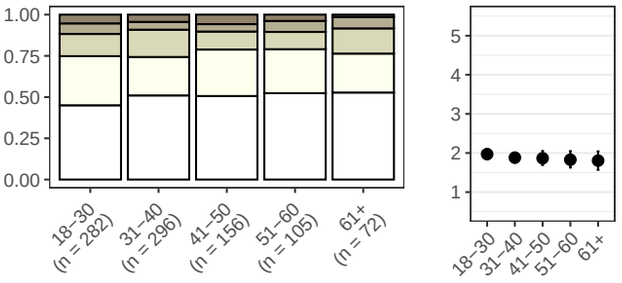
Judgments



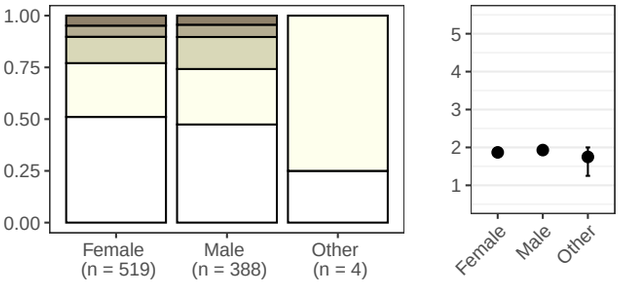
Age



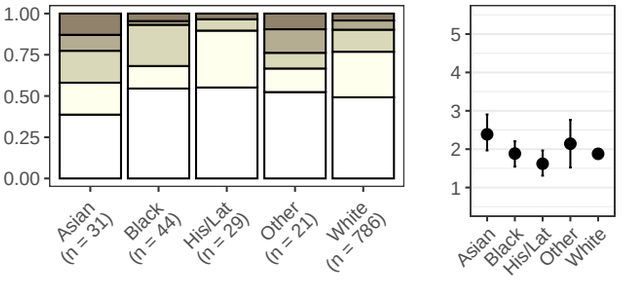
Age groups



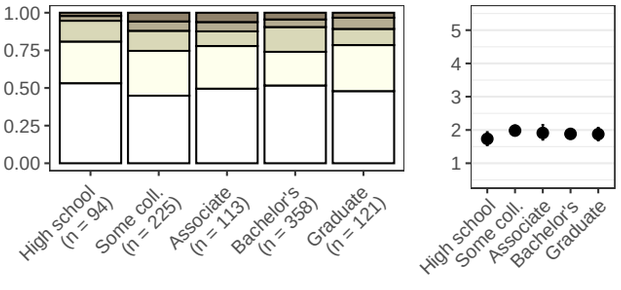
Gender



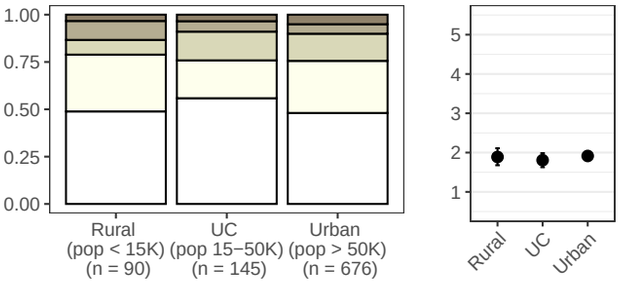
Race



Education



Urban/Rural



4.2 *Hella*

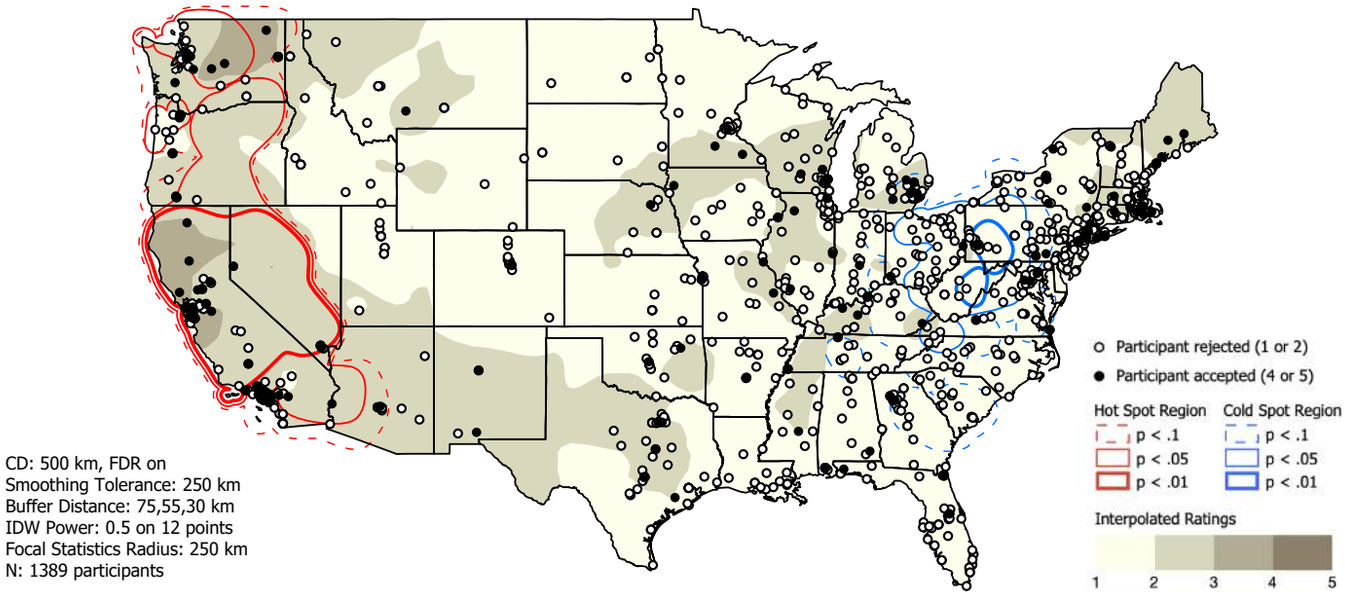
We included the three *hella* sentences in (13) on surveys 6 and 6b. The sentences in 1091 and 1092 were originally from Boboc (2016).

(13)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1091	This seat reclines hella!	1389	1.99	1.16	6, 6b
F1092	I spoke Spanish today for the first time in hella days.	1389	2.36	1.27	6, 6b
F1093	That girl is hella smart.	1389	3.44	1.45	6, 6b

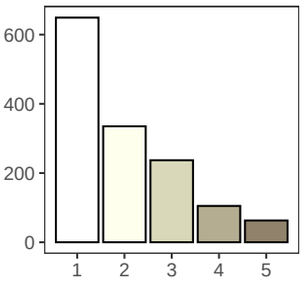
Previous maps of subsets of these data revealed hot spots in Northern California (Wood 2019b), along with other places in the West which is replicated in the maps below. Class investigations in a Fall 2019 undergraduate seminar at Yale revealed an age effect, where younger speakers were more likely to accept *hella* than older speakers, especially for 1093.

F1091: "This seat reclines hella!"

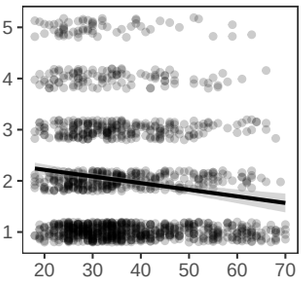


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

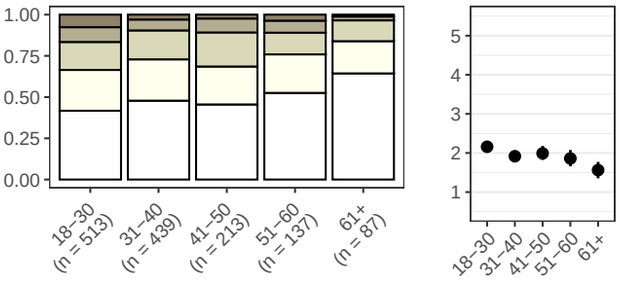
Judgments



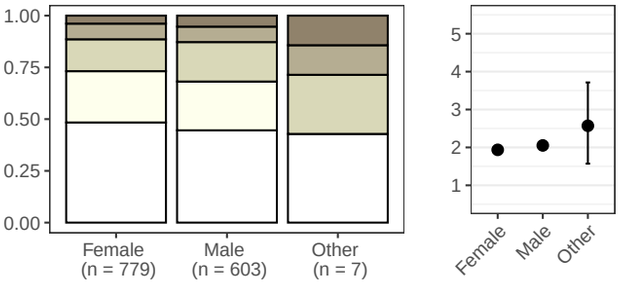
Age



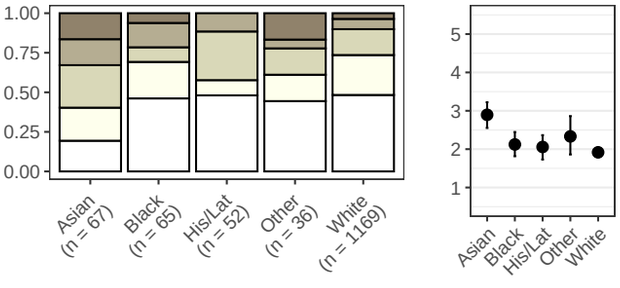
Age groups



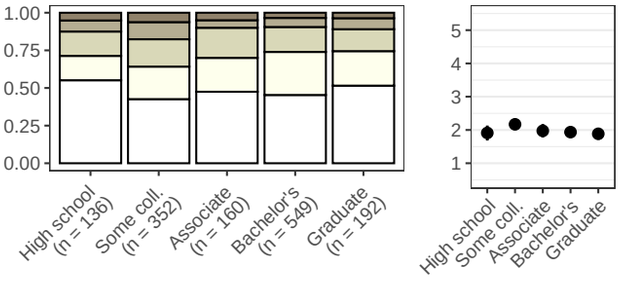
Gender



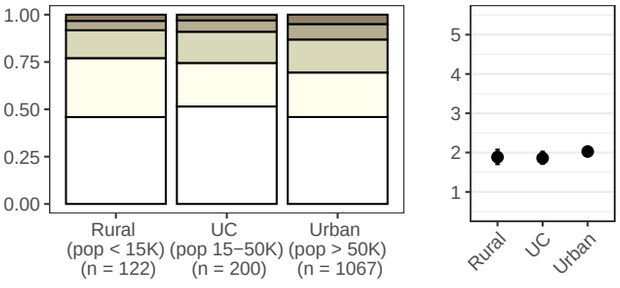
Race



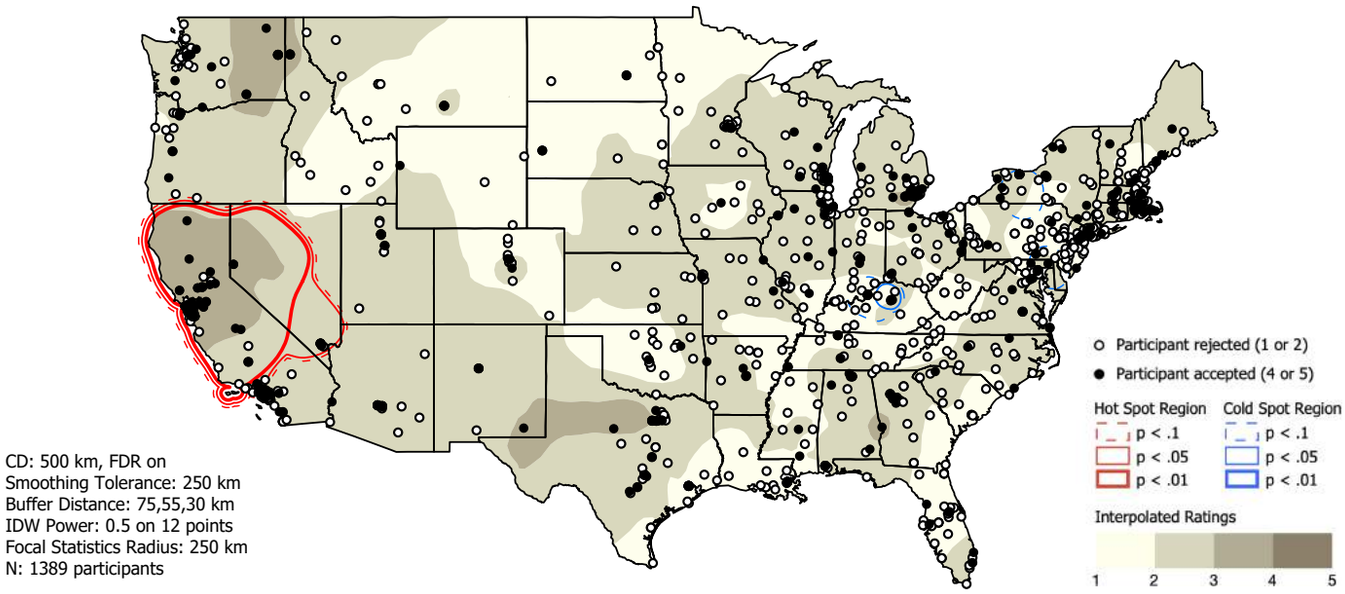
Education



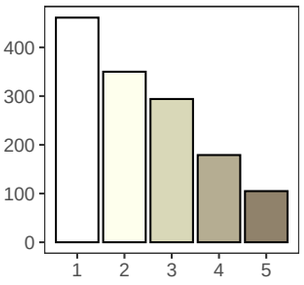
Urban/Rural



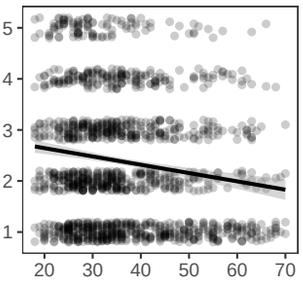
F1092: "I spoke Spanish today for the first time in hella days."



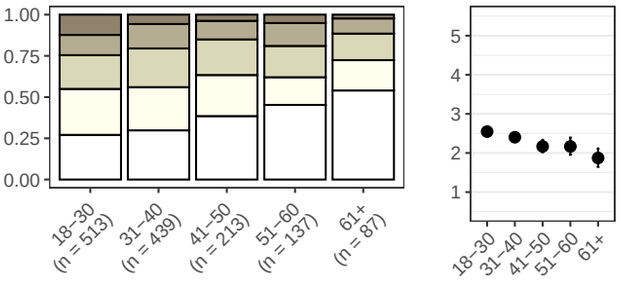
Judgments



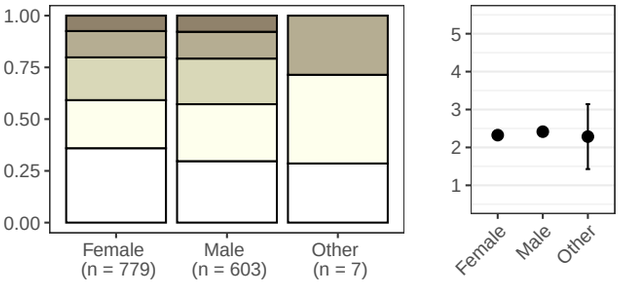
Age



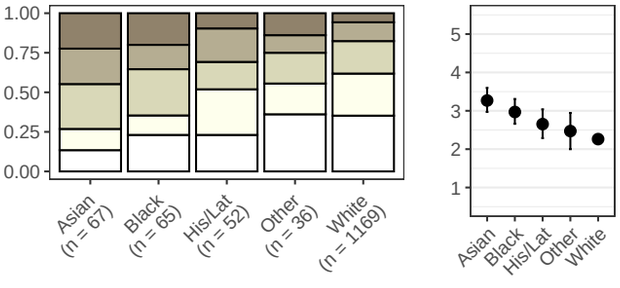
Age groups



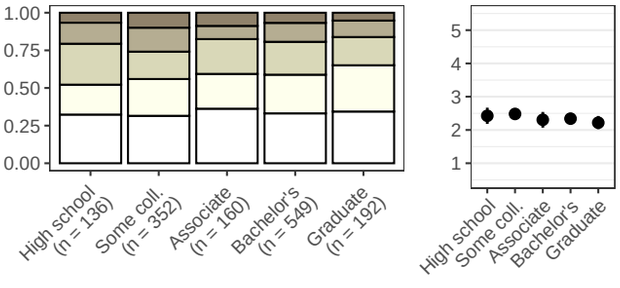
Gender



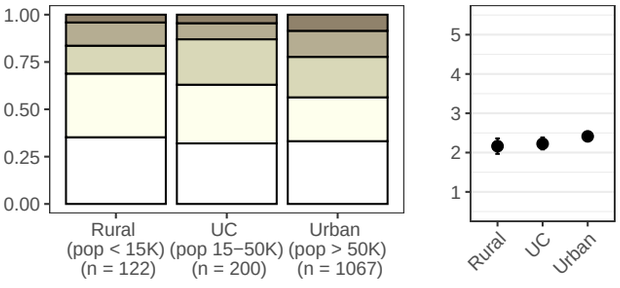
Race



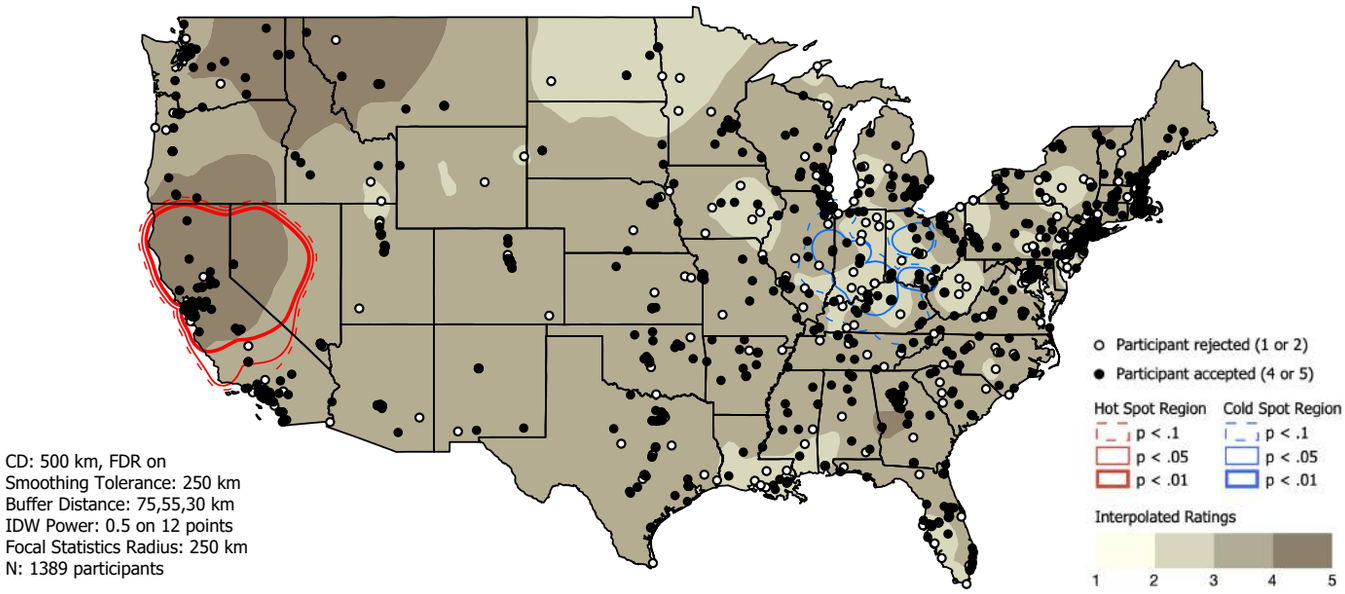
Education



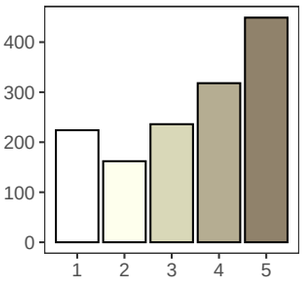
Urban/Rural



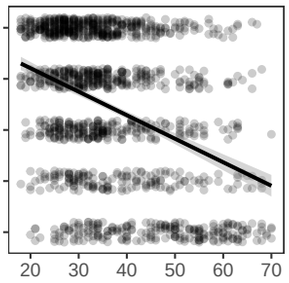
F1093: "That girl is hella smart."



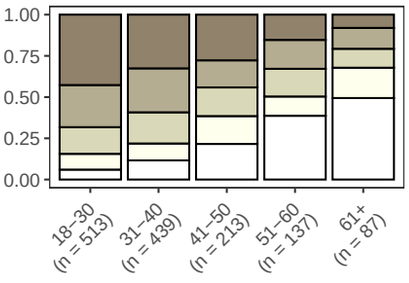
Judgments

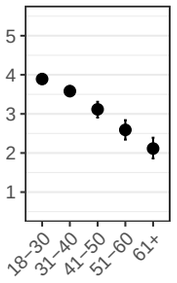


Age

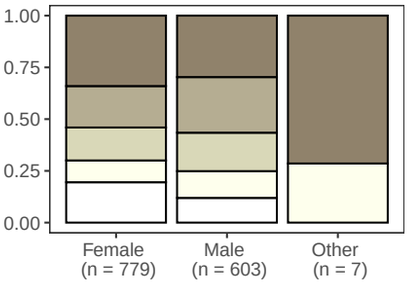


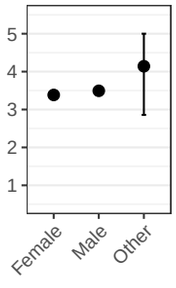
Age groups



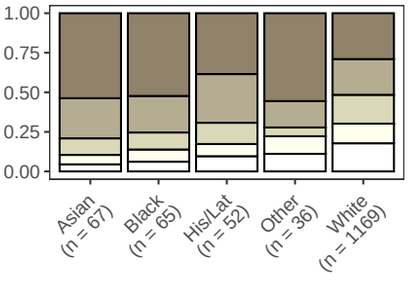


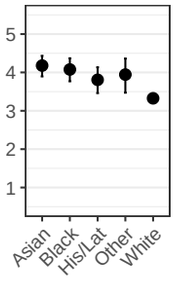
Gender



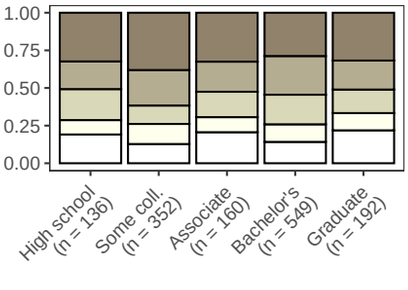


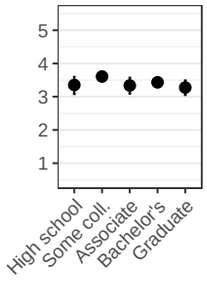
Race



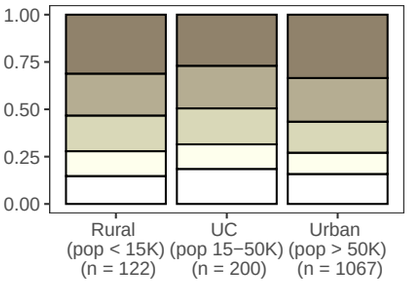


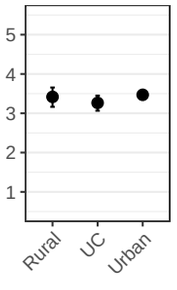
Education





Urban/Rural





4.3 *So don't I*

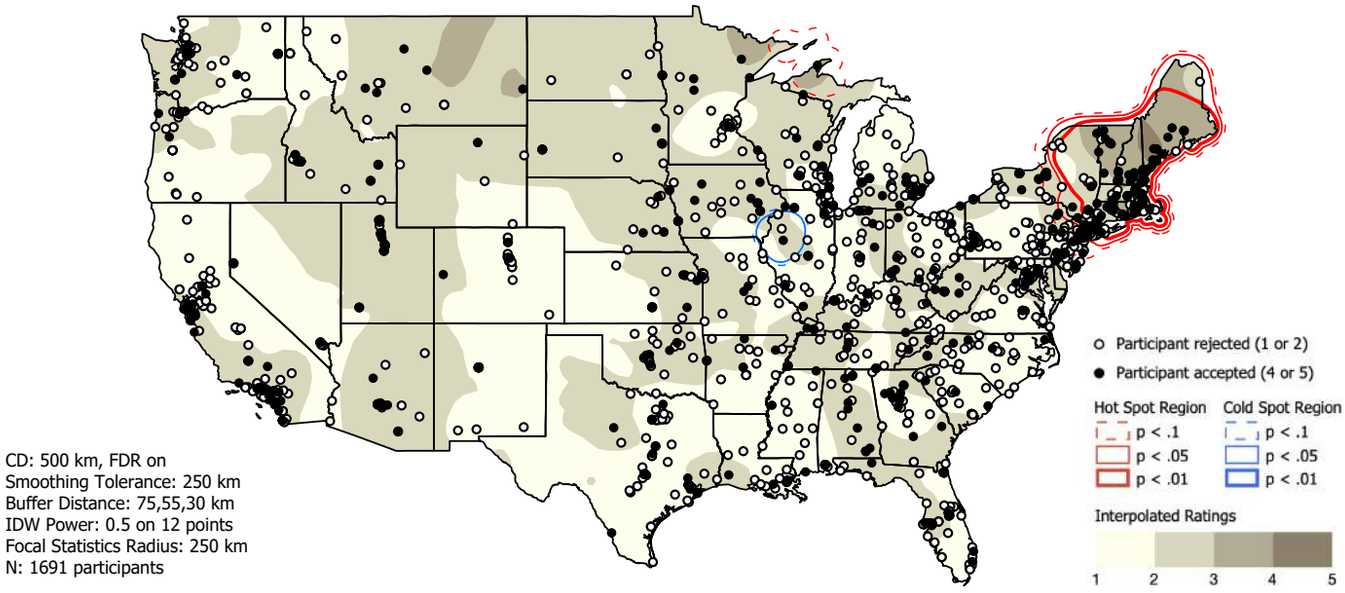
We have included the sentences in (14) as examples of the "*so don't I* construction" (Pappas 2004; Wood 2014) on several different surveys.

(14)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1045	John might like oranges, but so don't I– in fact, I like them a lot!	1388	1.63	1.20	6, 6b
F1094	Sure I could help you, but so couldn't my brother, and he's free right now.	1928	1.55	1.04	6, 6b, 8

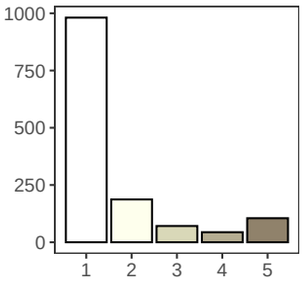
In mapping subsets of these data, we invariably find hotspots in Eastern New England (Wood 2019b). These results are found in the maps below as well. Other aspects of these constructions have not been investigated in detail.

F1045: "John might like oranges, but so don't I—in fact, I like them a lot!"

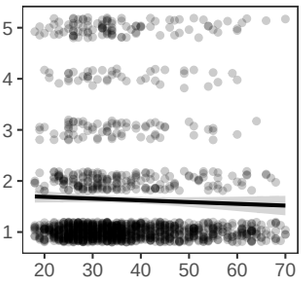


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1691 participants

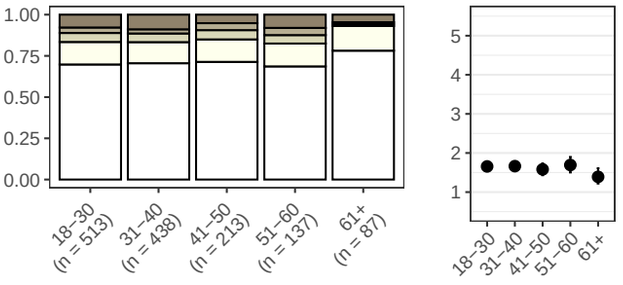
Judgments



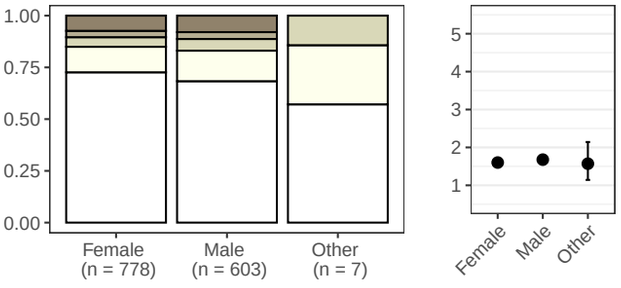
Age



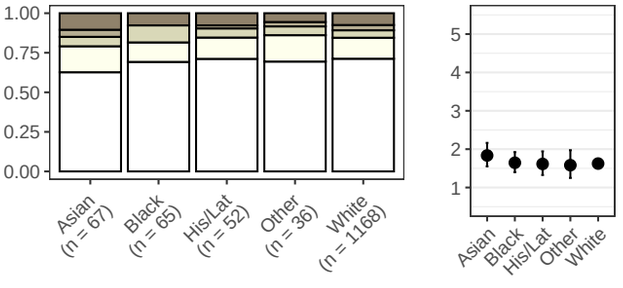
Age groups



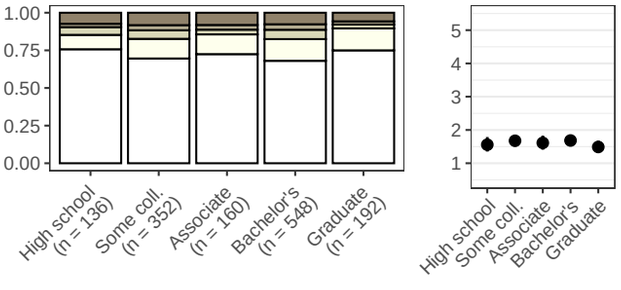
Gender



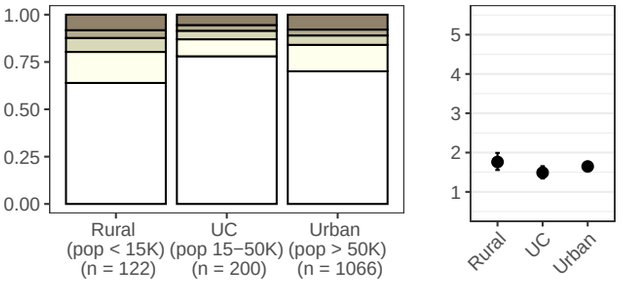
Race



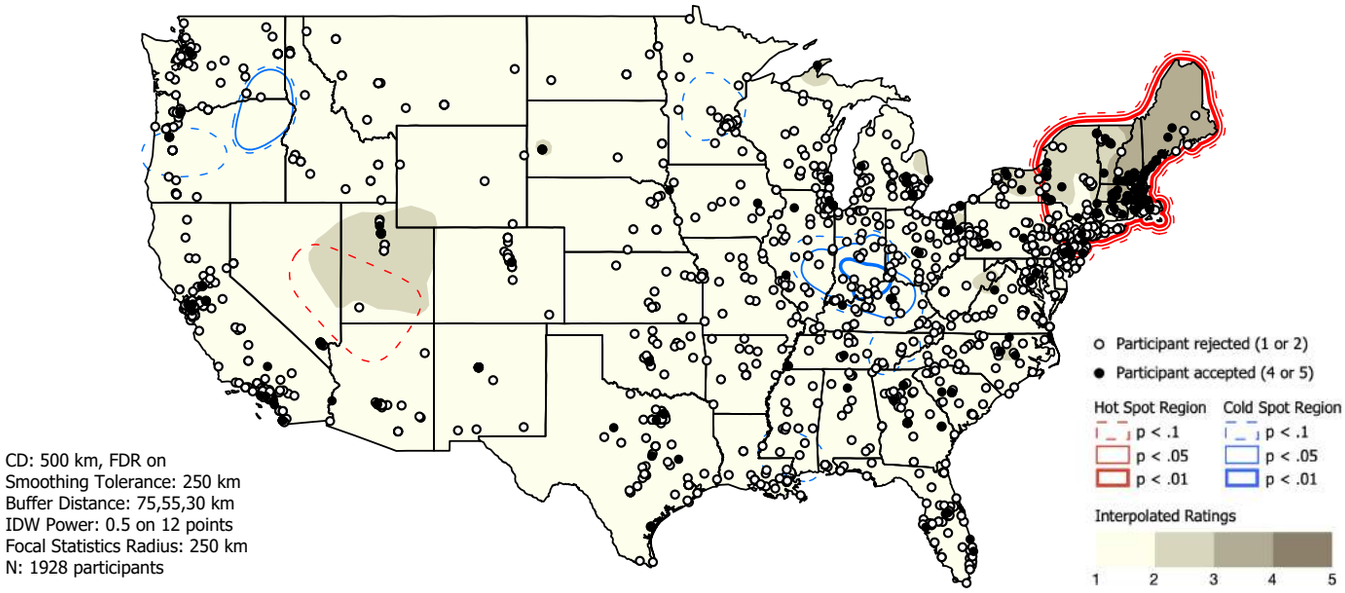
Education



Urban/Rural

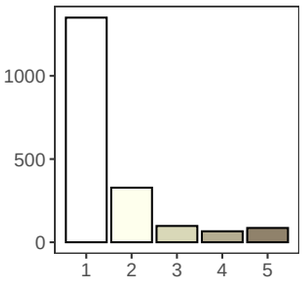


F1094: "Sure I could help you, but so couldn't my brother, and he's free right now."

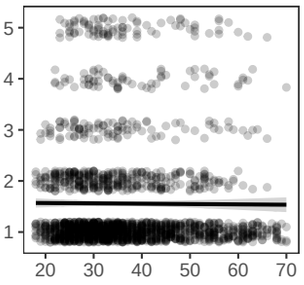


CD: 500 km, FDR on
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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1928 participants

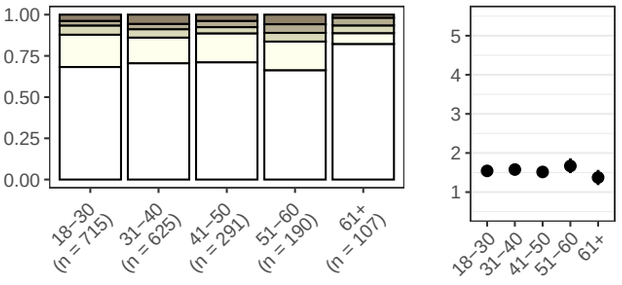
Judgments



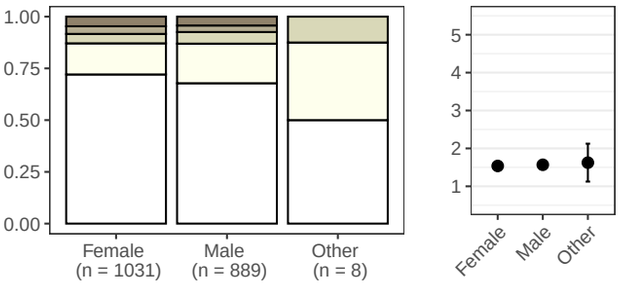
Age



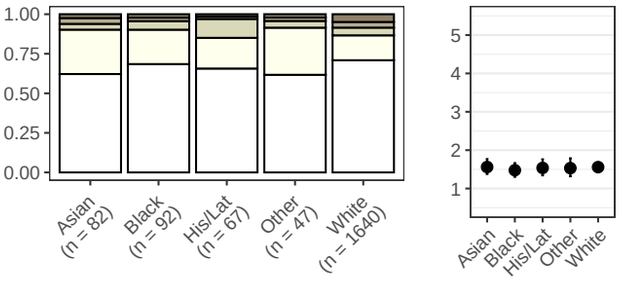
Age groups



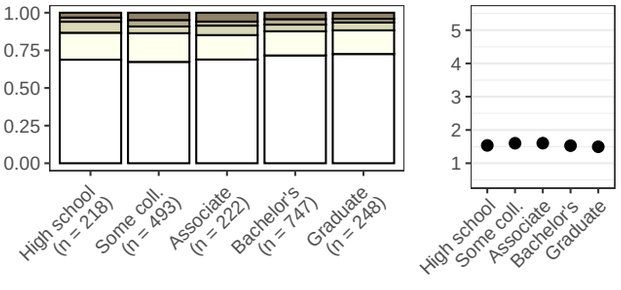
Gender



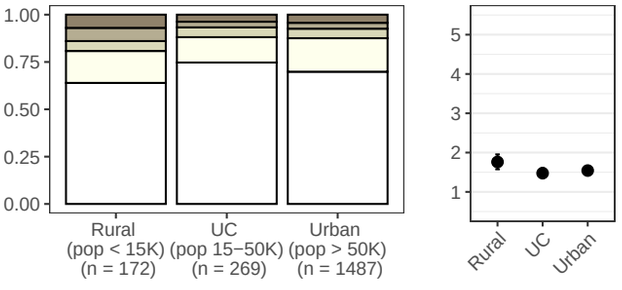
Race



Education



Urban/Rural



4.4 *Be done my homework*

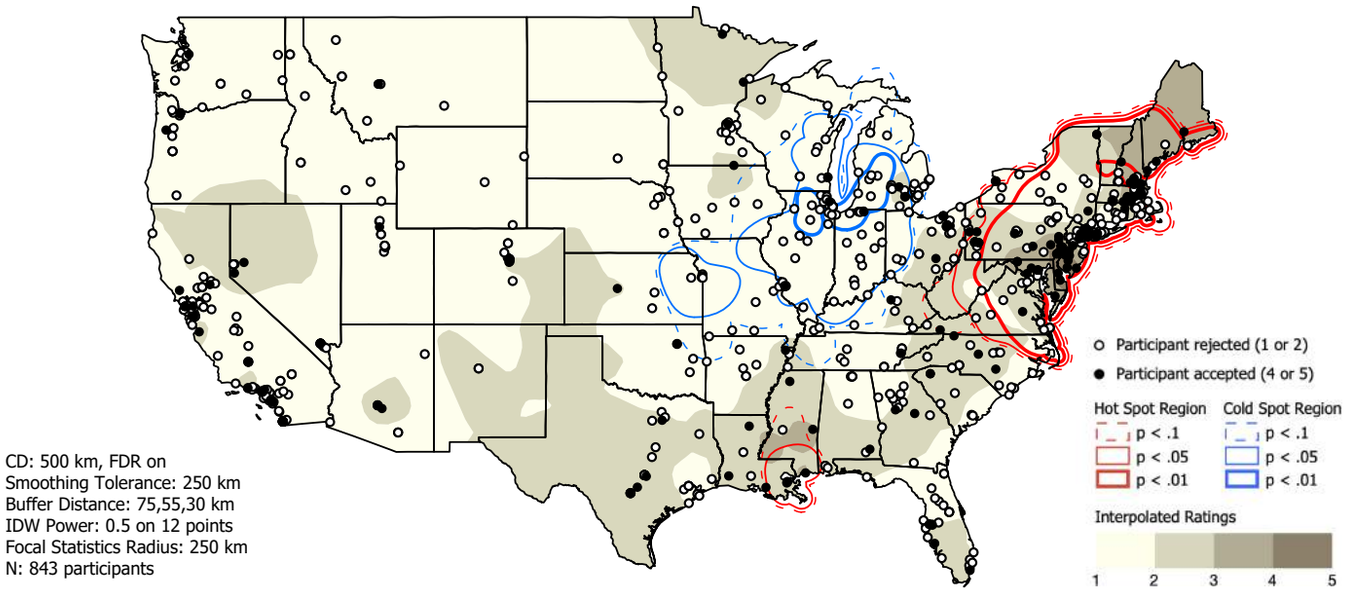
We included the sentences in (15) in various surveys as examples of the *be done my homework* construction (Yerastov 2010; Fruehwald and Myler 2015).

(15)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1043	I'm done my homework.	843	2.05	1.43	5, 6
F1157	Are you done your homework?	1237	1.91	1.31	5b, 8
F1158	Are you started your homework?	539	1.45	0.77	8
F1159	Are you finished your homework?	539	2.11	1.37	8

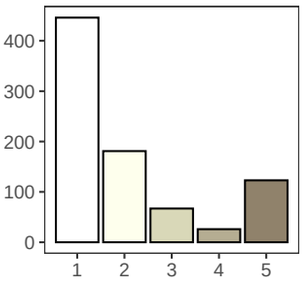
We have mapped subsets of these data, and some of these maps have been published (Wood 2019b). The maps below show a large Northeastern hot spot region for all of these sentences, reaching from Virginia (and part of North Carolina) all the way to Maine. However, we know from (Wood 2019b) that this is not a heterogenious region, and that there are hot and cold spots within the region. This has yet to be explored in detail with the full dataset.

F1043: "I'm done my homework."

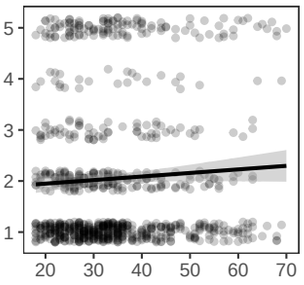


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 843 participants

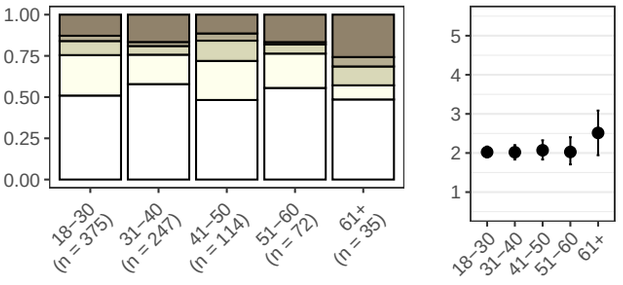
Judgments



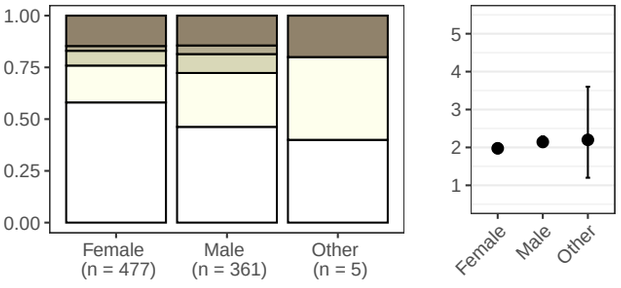
Age



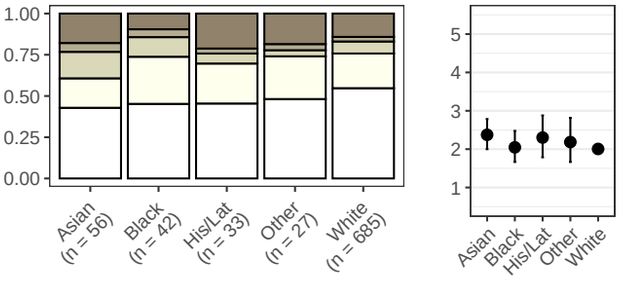
Age groups



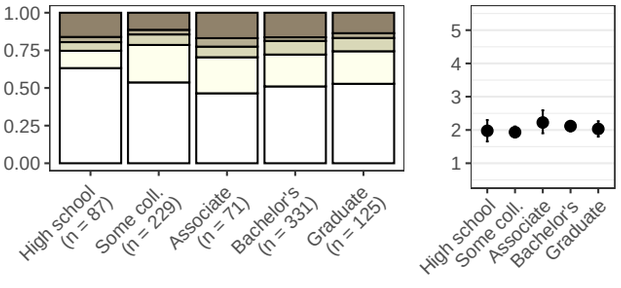
Gender



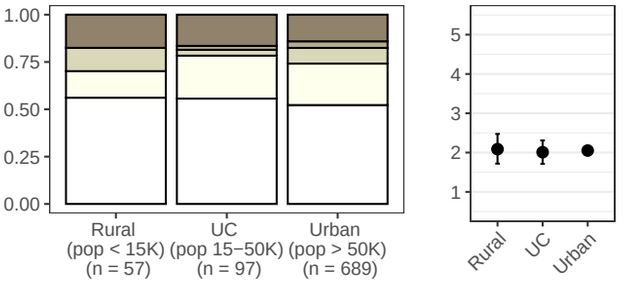
Race



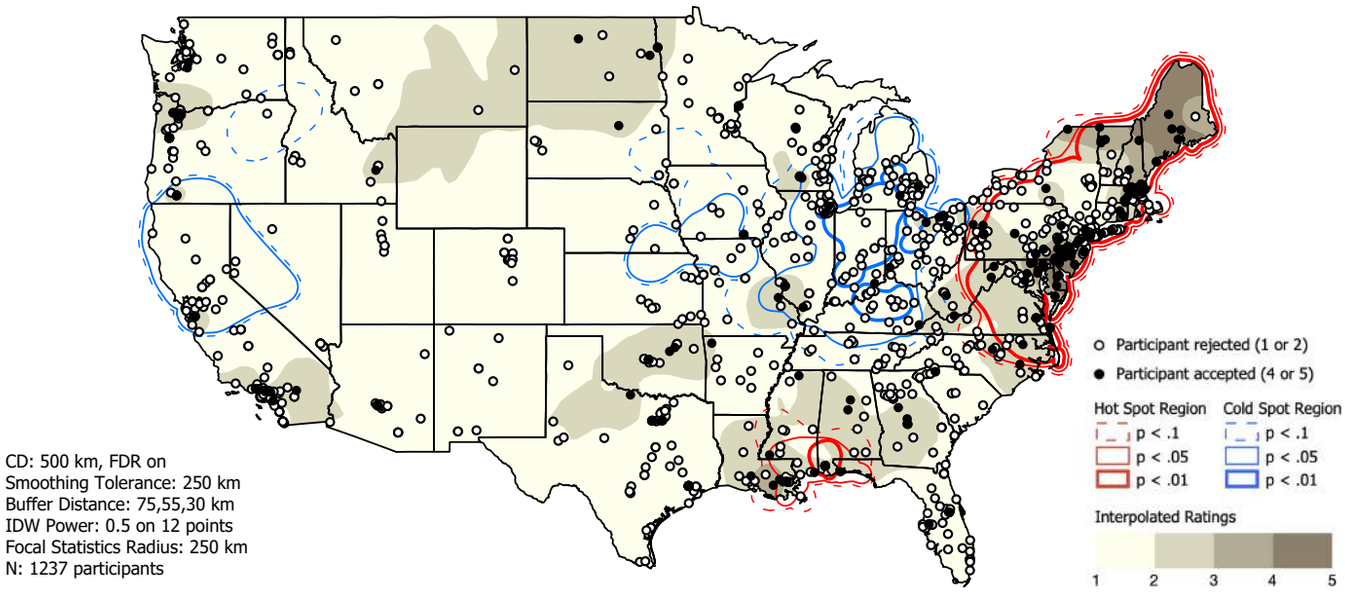
Education



Urban/Rural

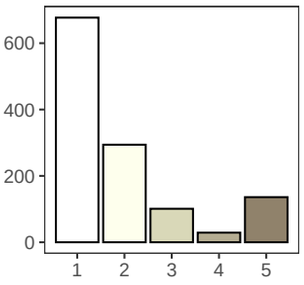


F1157: "Are you done your homework?"

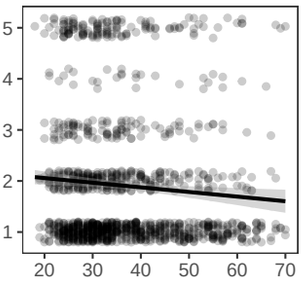


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1237 participants

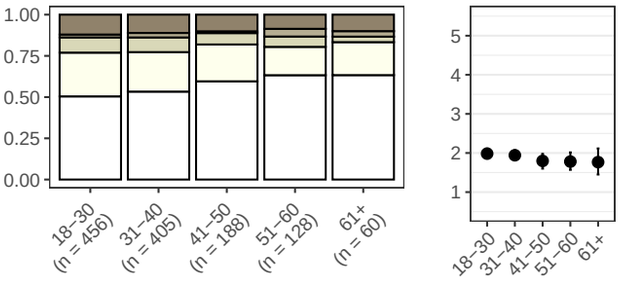
Judgments



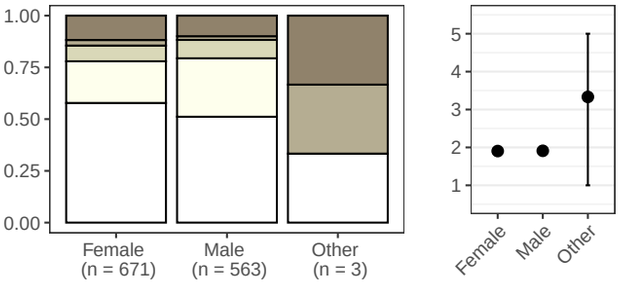
Age



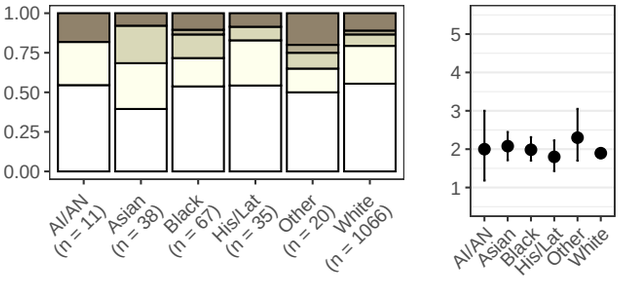
Age groups



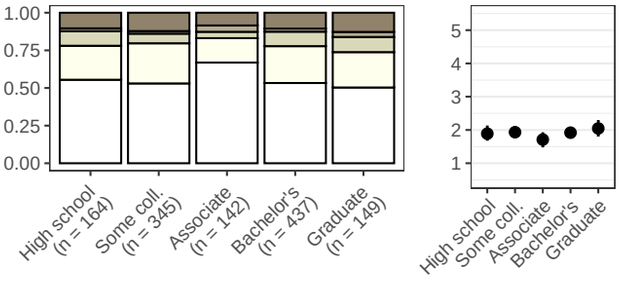
Gender



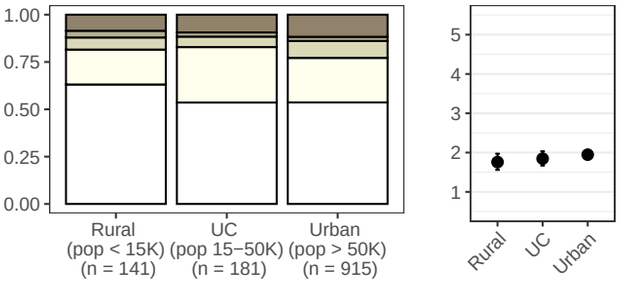
Race



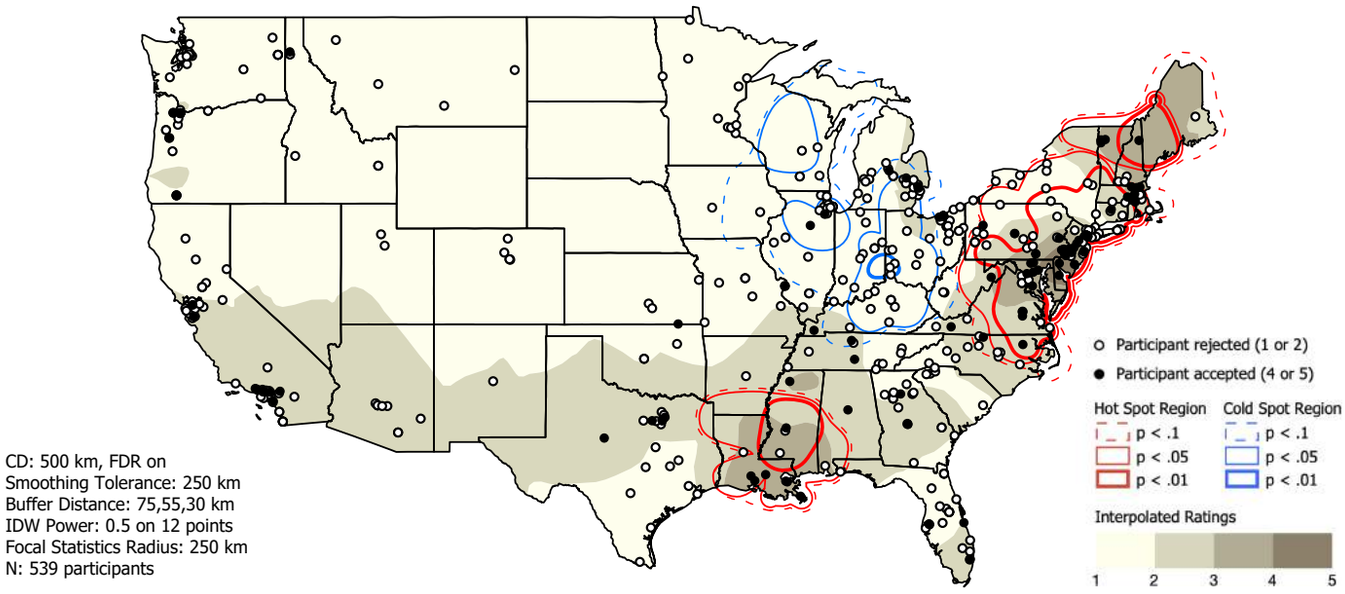
Education



Urban/Rural

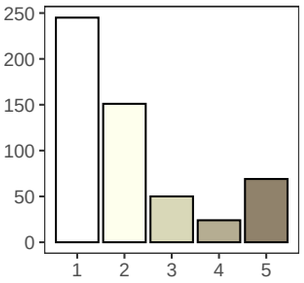


F1159: "Are you finished your homework?"

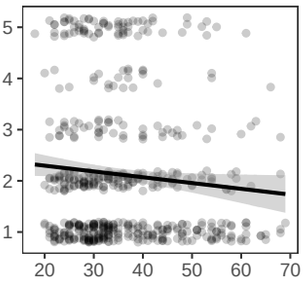


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

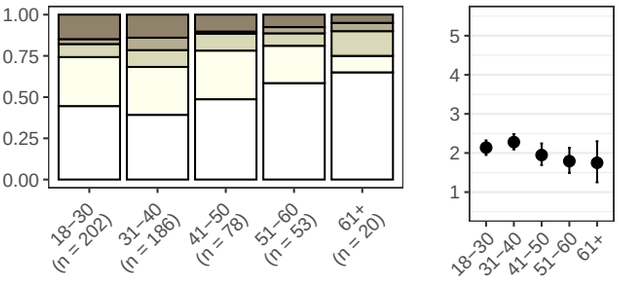
Judgments



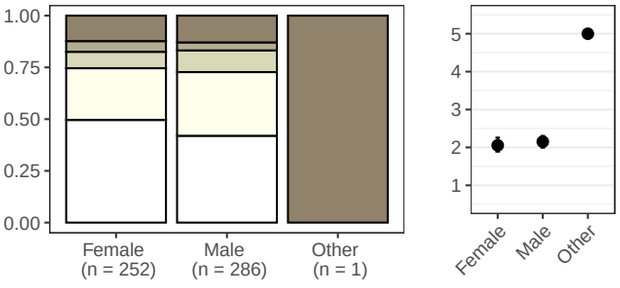
Age



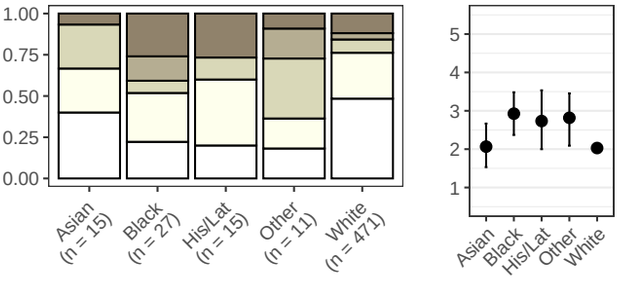
Age groups



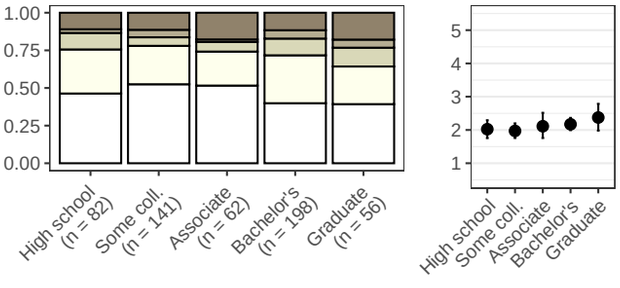
Gender



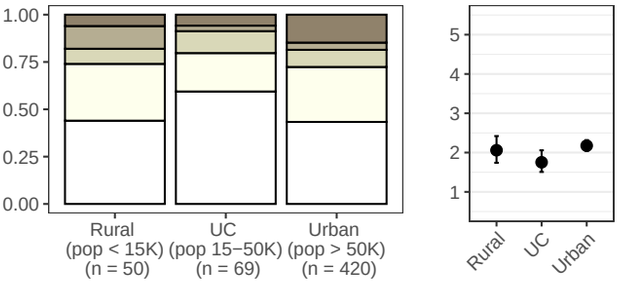
Race



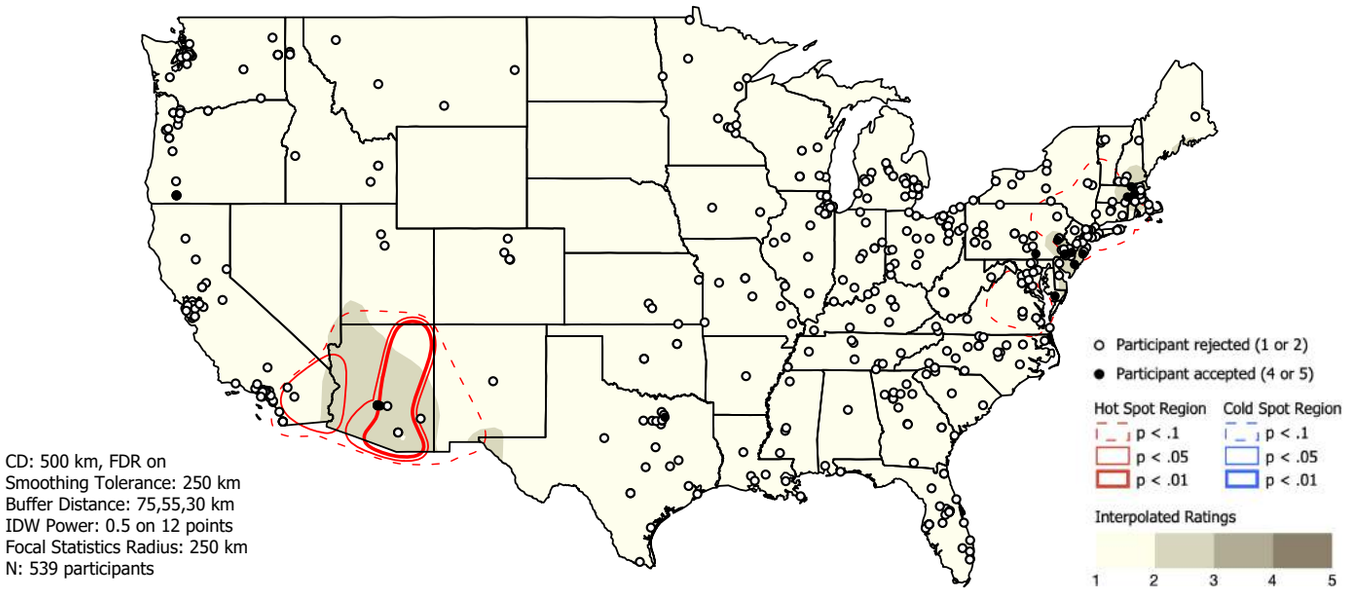
Education



Urban/Rural

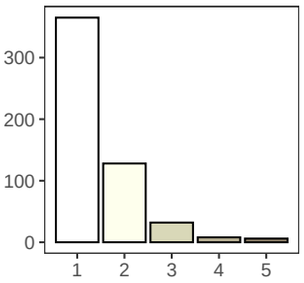


F1158: "Are you started your homework?"

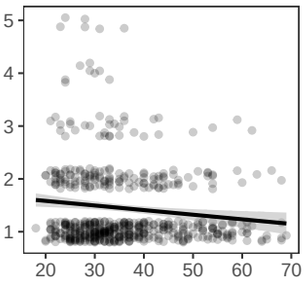


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

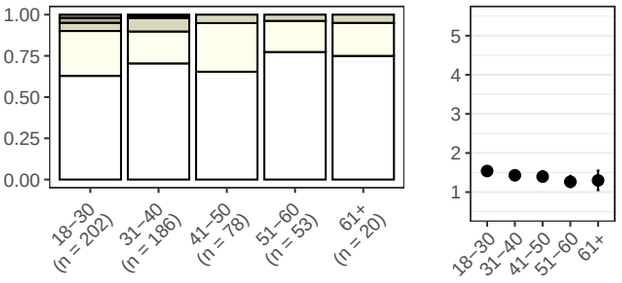
Judgments



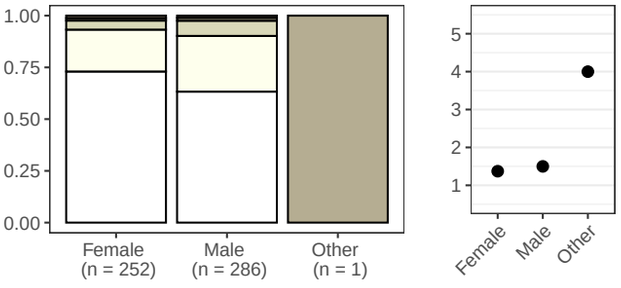
Age



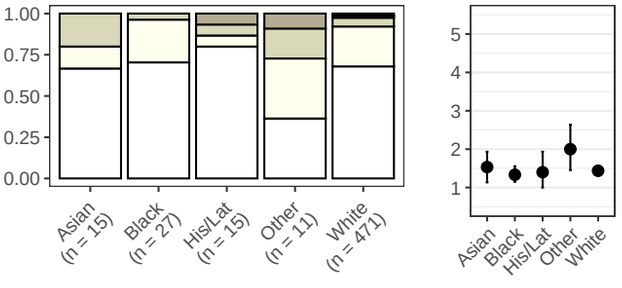
Age groups



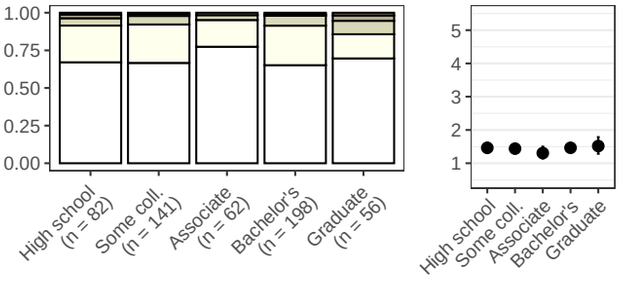
Gender



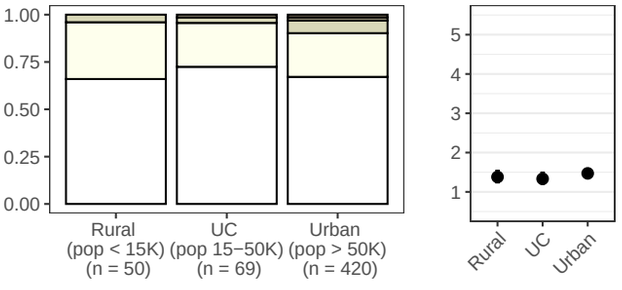
Race



Education



Urban/Rural



5 Survey 11 Constructions

Survey 11 was set up a bit differently than the others. Having accomplished most of the primary goals of our NSF grant, we set out to expand the pilot studies to collect extra data on specific constructions. We therefore had no need for a "Pilot/Primary" difference, and instead included five sentences for each of six constructions. The controls were still the same. In some cases, as we will see, there is also data on the relevant construction in other surveys. After removing the speakers who failed the controls or otherwise needed to be removed (e.g. for geographic regions), survey 11 contained a relatively small number of participants, at 349. However, what it lacks in participants, it makes up for in having five sentences of each type. Therefore, it may be in some ways superior to cases where we have lots of participants but fewer sentences for a construction. We have since rerun the survey to add more participants, but this is not yet incorporated into the present version of the database.

5.1 *After*-perfects

We included the five sentences in (16) for *after*-perfects.

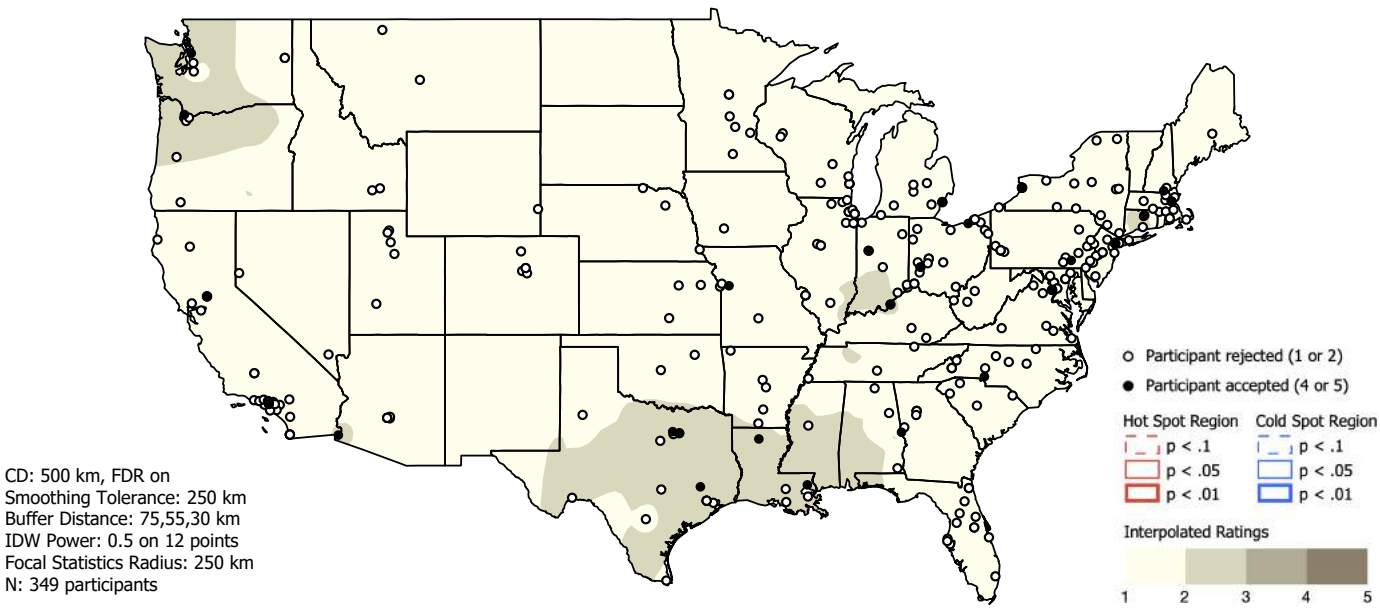
(16)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1201	I'm after forgettin' the name of my favorite bakery.	349	1.67	1.00	11
F1202	The storm's after getting much worse.	349	1.56	0.80	11
F1203	I'm after bein' up there for five hours.	349	1.66	0.94	11
F1204	She's just after telling me that she got the job.	349	1.73	0.96	11
F1205	She knows he's going to quit because I'm after tellin' her.	349	1.61	0.82	11

These sentences were intended to capture different uses of the 'perfect', as described in the literature and the YGDP *after*-perfect page (Clarke 1997, 2004, 2010; Bismark 2008; Mingay 2009). The maps below show that the construction is highly marked, and overwhelmingly unacceptable across the country. No regional patterns are found to be significant when the FDR correction is used. However, here we also include the non-FDR corrected maps, because it is possible that some of the regions picked out there may be non-accidental. 1204 and 1205, for example, have hot spots in the Northeast, which is geographically closest to the areas in Canada where the construction is generally reported to exist within North America. So it may be worth trying other parameters, looking into the acceptances more closely, or averaging across the sentences. However, these maps also likely contain many false positives, so the general takeaway at present should be that it is widely rejected with no reliable geographic patterns.

With FDR Correction

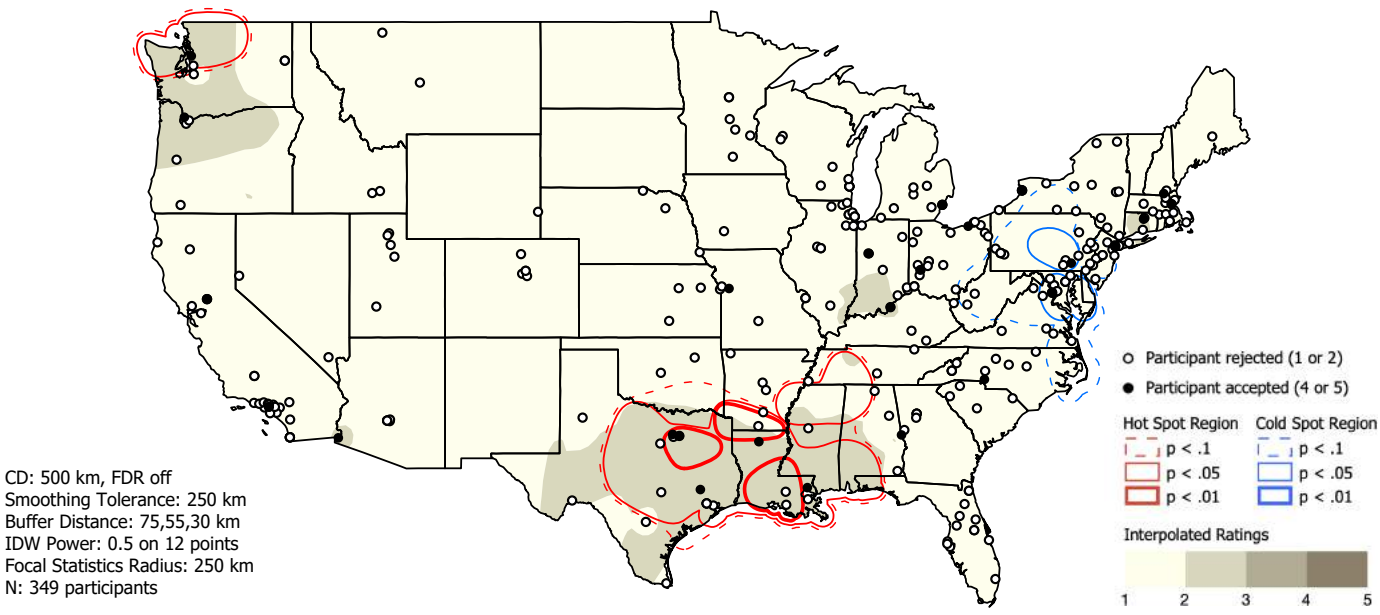
F1201: "I'm after forgettin' the name of my favorite bakery."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

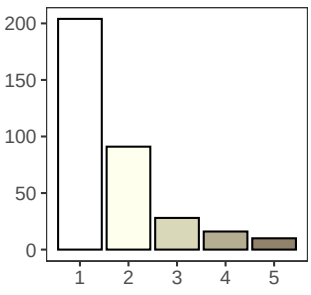
Without FDR Correction: Interpret with caution

F1201: "I'm after forgettin' the name of my favorite bakery."

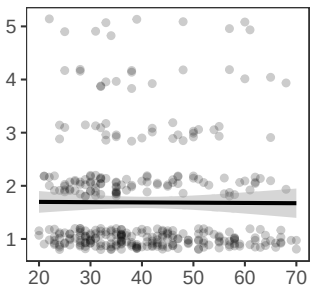


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

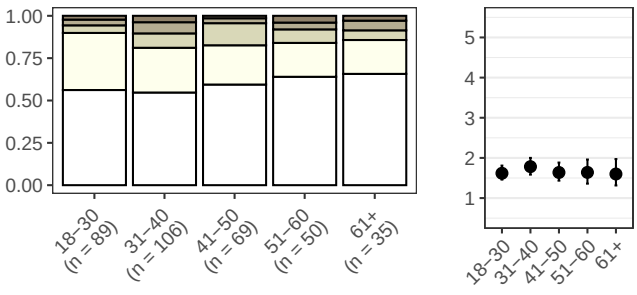
Judgments



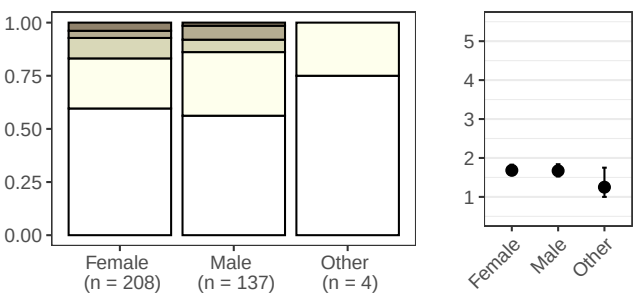
Age



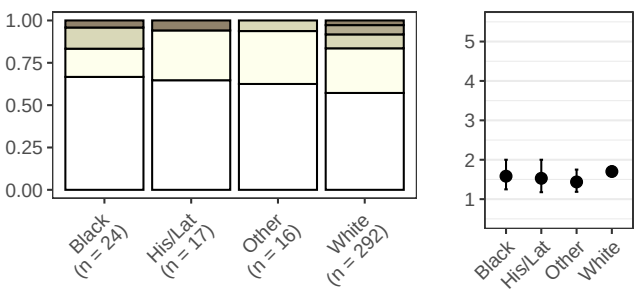
Age groups



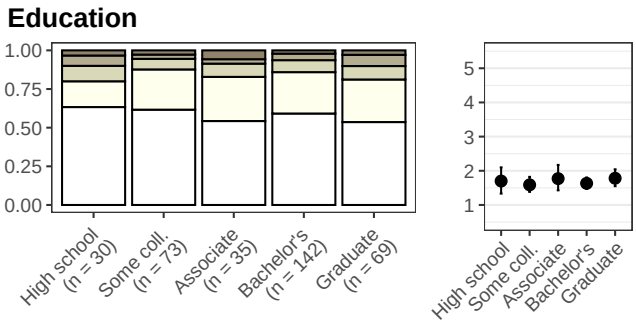
Gender



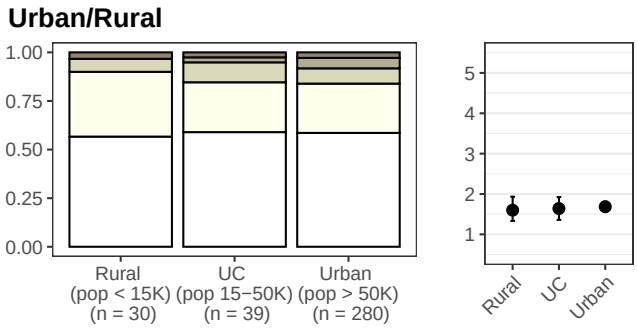
Race



Education

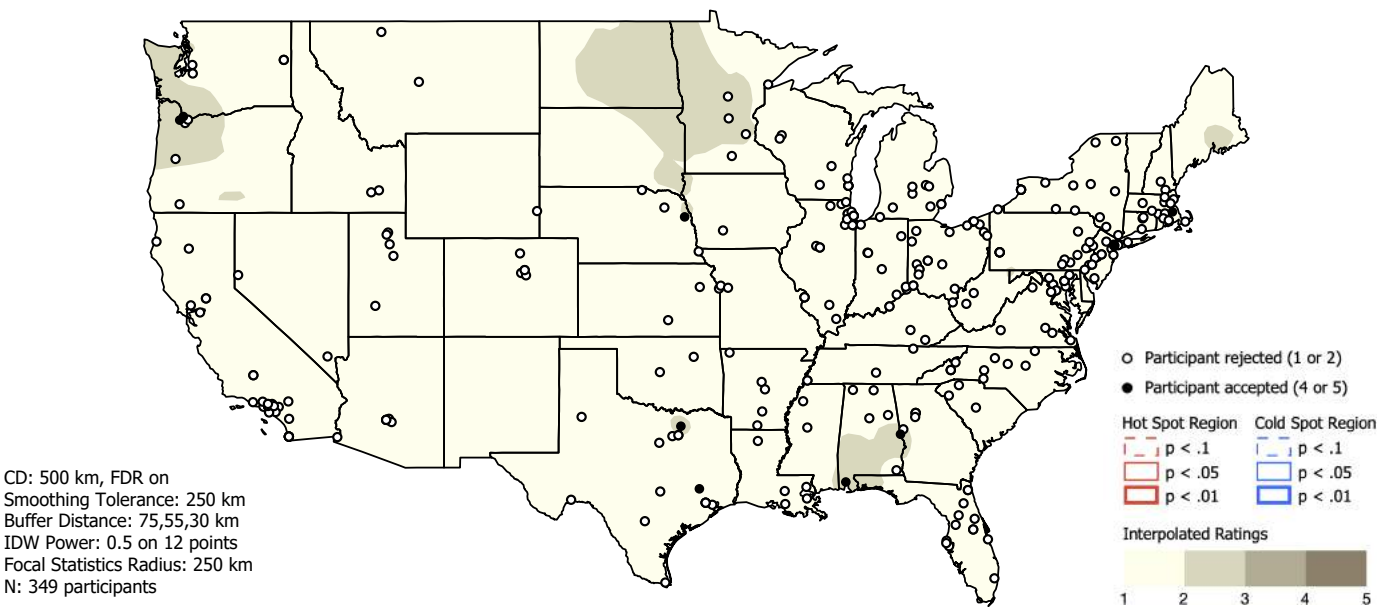


Urban/Rural



With FDR Correction

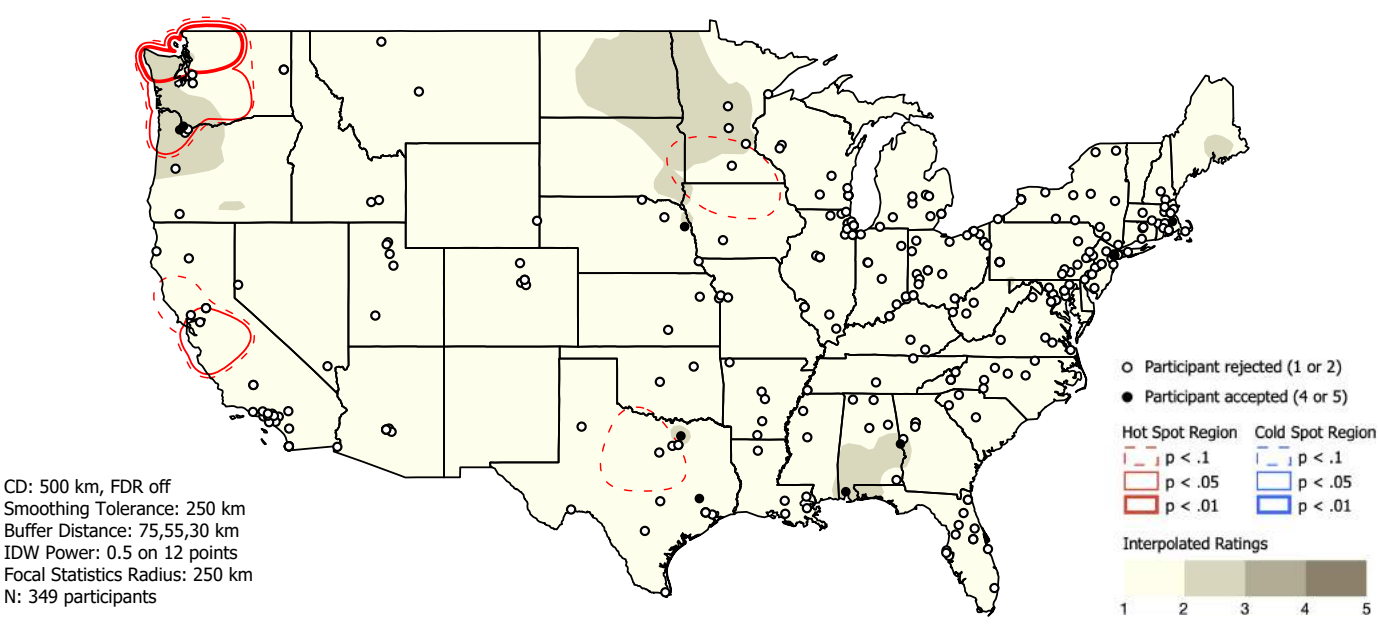
F1202: "The storm's after getting much worse."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

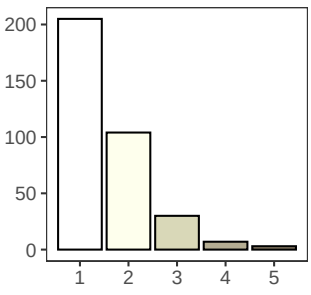
Without FDR Correction: Interpret with caution

F1202: "The storm's after getting much worse."

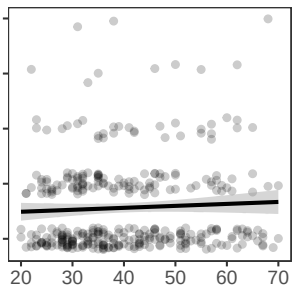


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

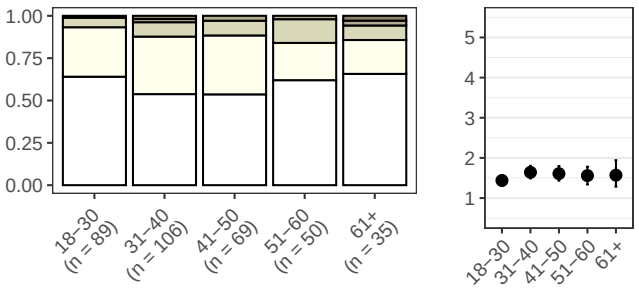
Judgments



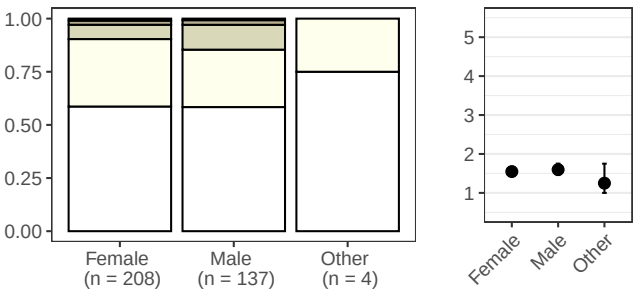
Age



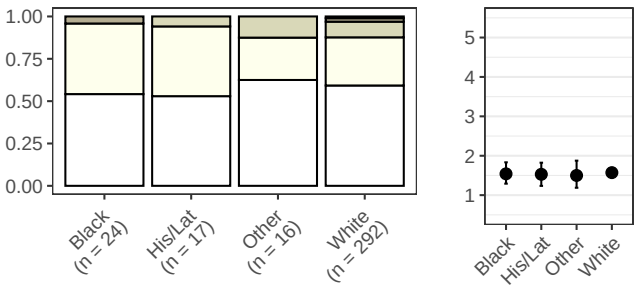
Age groups



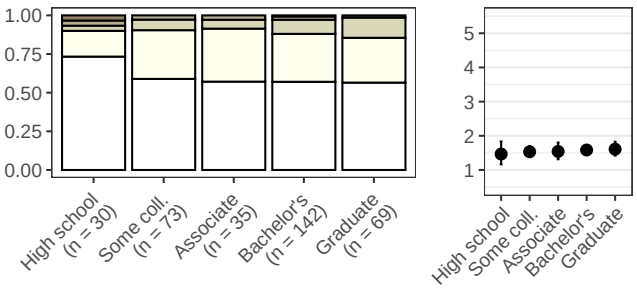
Gender



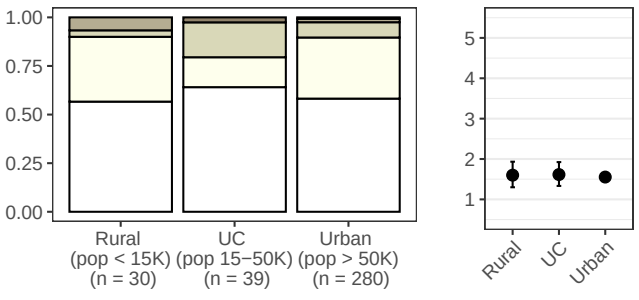
Race



Education

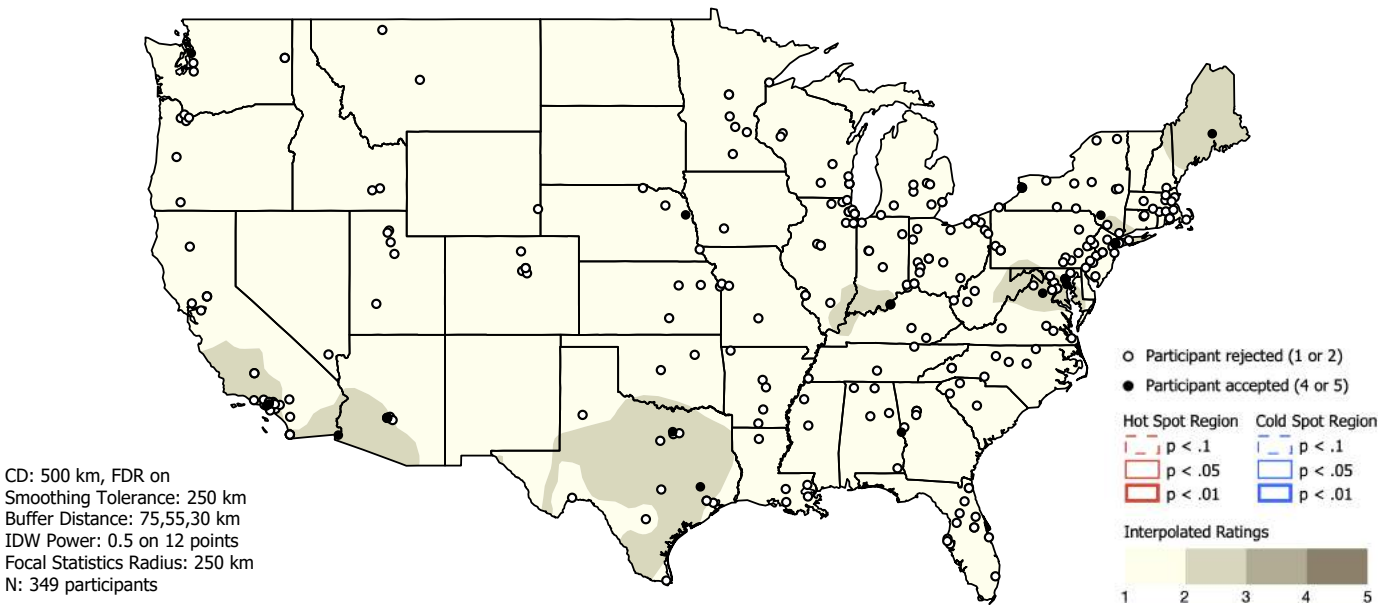


Urban/Rural



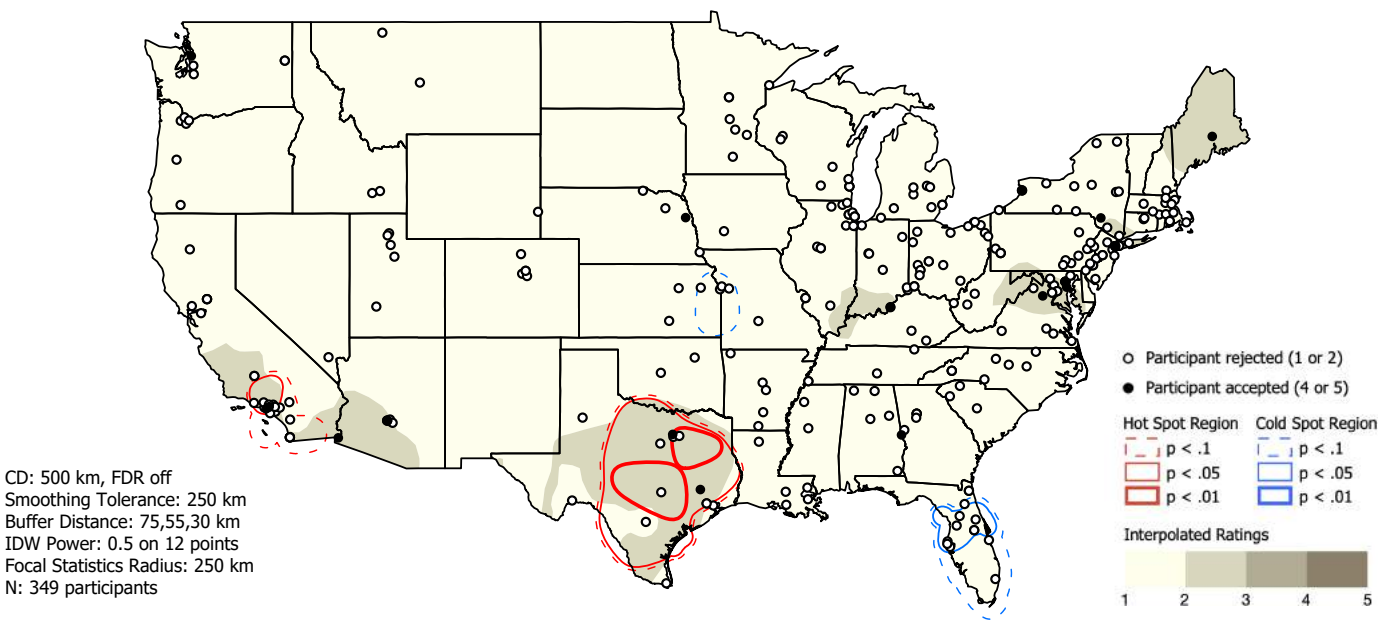
With FDR Correction

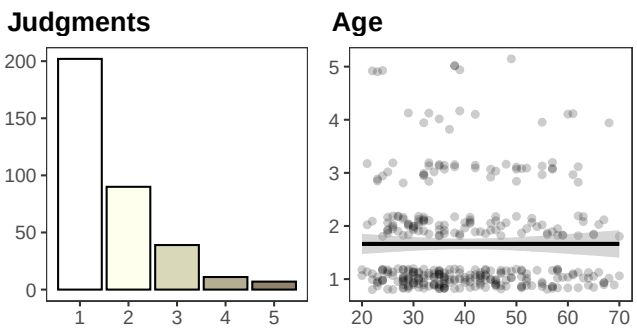
F1203: "I'm after bein' up there for five hours."

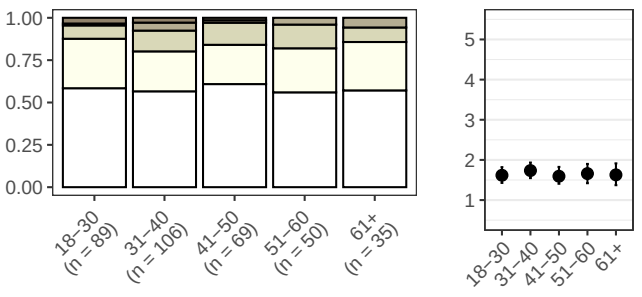


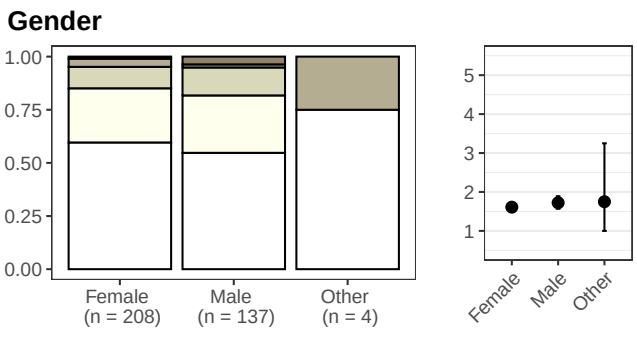
Without FDR Correction: Interpret with caution

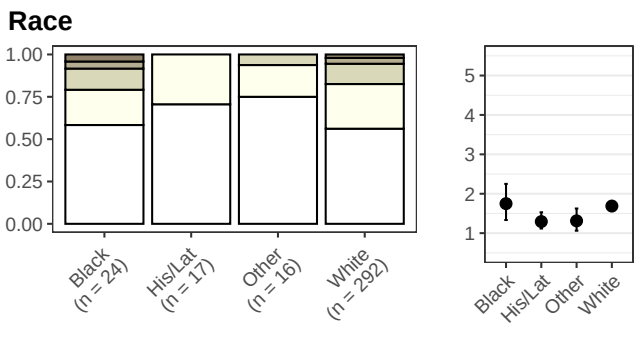
F1203: "I'm after bein' up there for five hours."

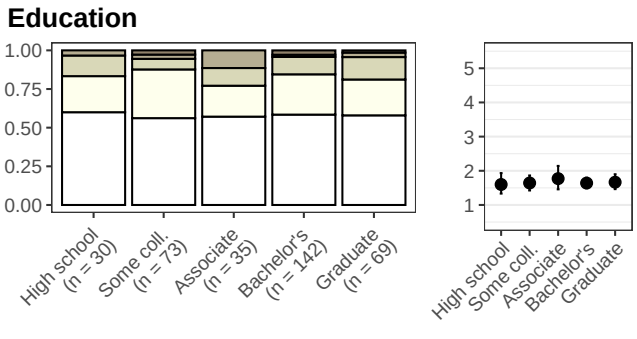


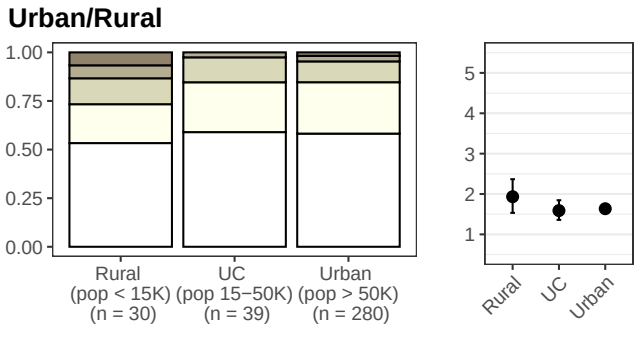






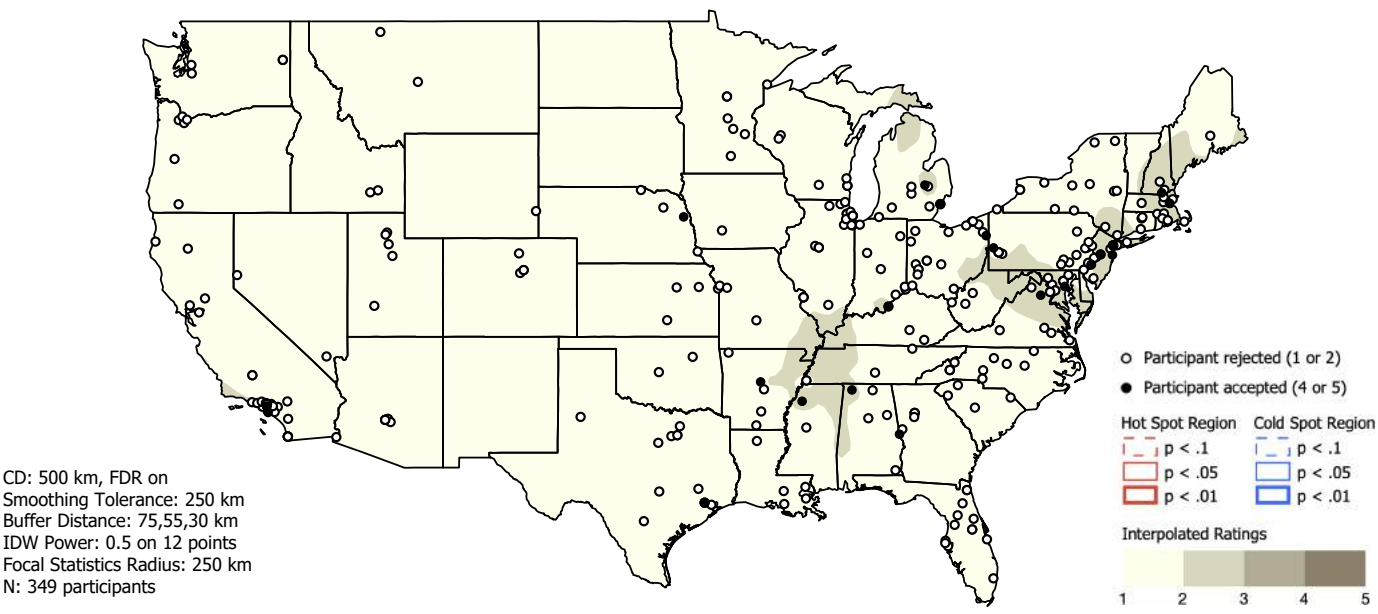






With FDR Correction

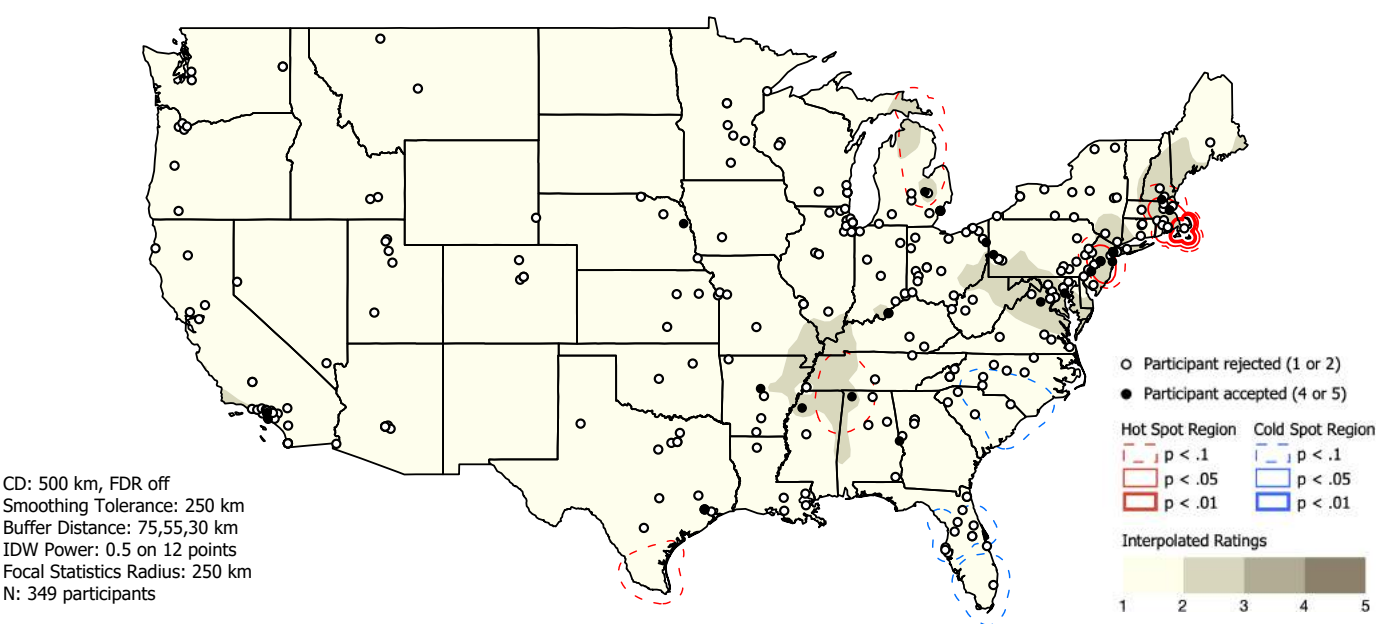
F1204: "She's just after telling me that she got the job."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

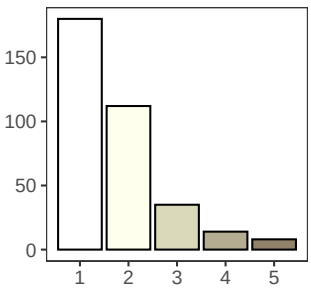
Without FDR Correction: Interpret with caution

F1204: "She's just after telling me that she got the job."

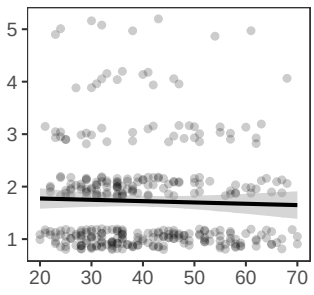


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

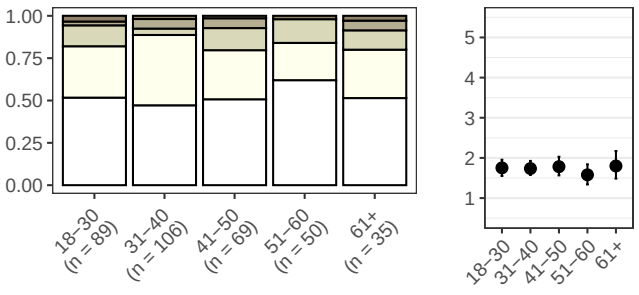
Judgments



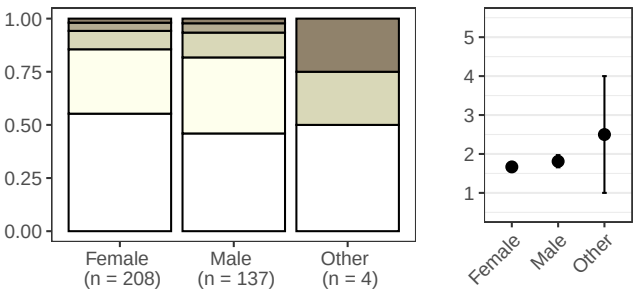
Age



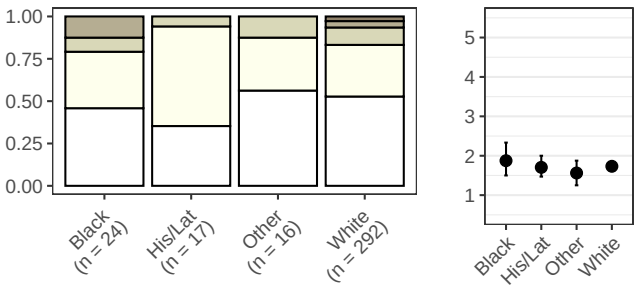
Age groups



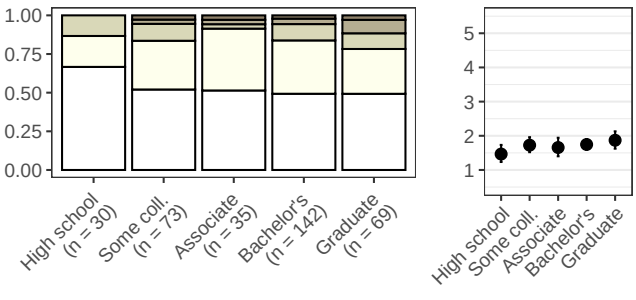
Gender



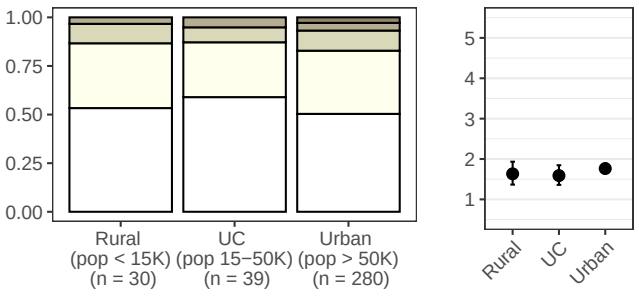
Race



Education

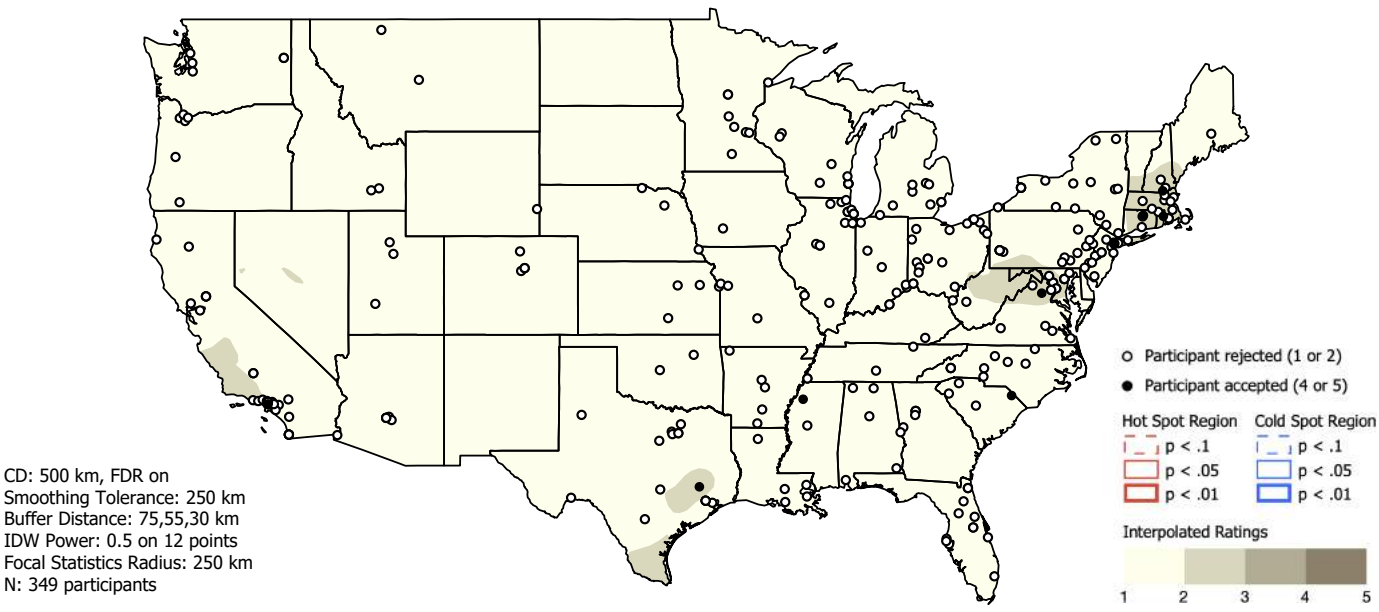


Urban/Rural



With FDR Correction

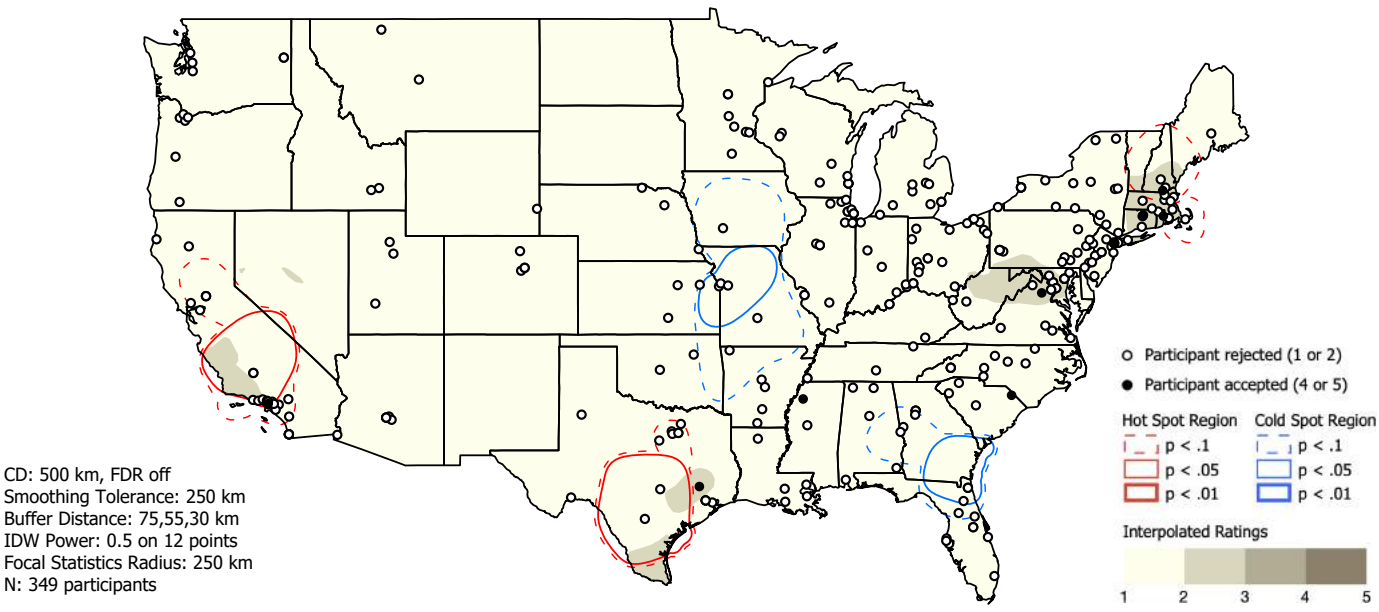
F1205: "She knows he's going to quit because I'm after tellin' her."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

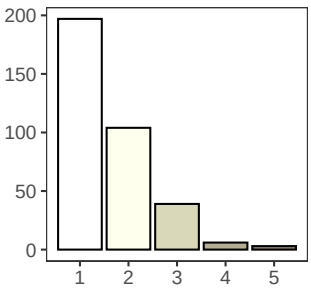
Without FDR Correction: Interpret with caution

F1205: "She knows he's going to quit because I'm after tellin' her."

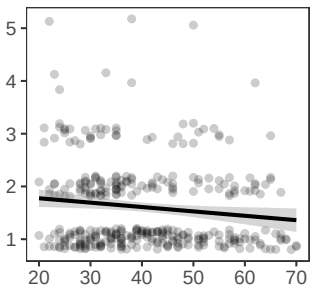


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

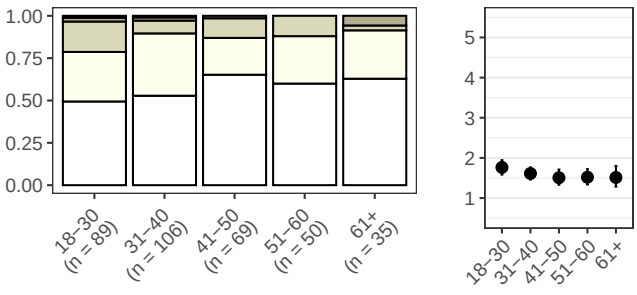
Judgments



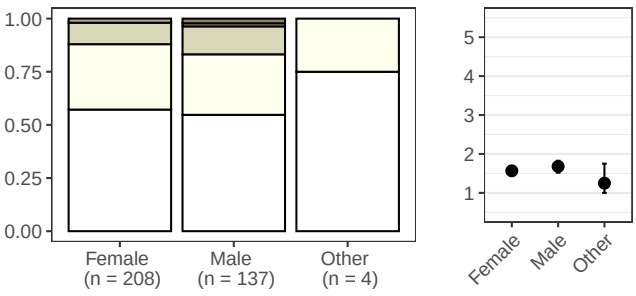
Age



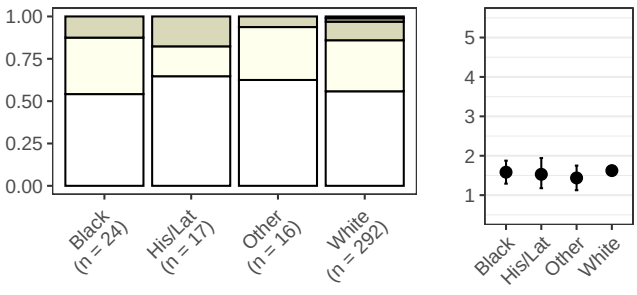
Age groups



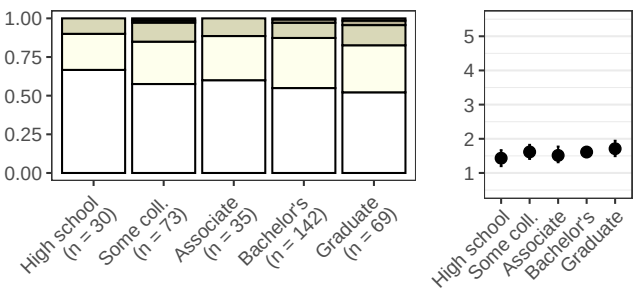
Gender



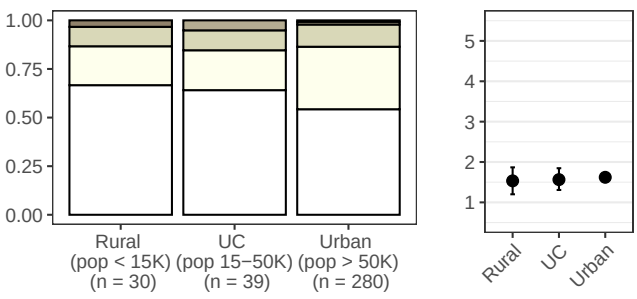
Race



Education



Urban/Rural



5.2 The *alls*-construction

We included the sentences in (17) in Survey 11, with the exception of 1114, which was included as a lone pilot sentence on Surveys 6 and 6B. This has been described as characteristic of Midwest American English, specifically Southern/Southeastern Ohio and Kentucky (Putnam and van Koppen 2009, 2011).

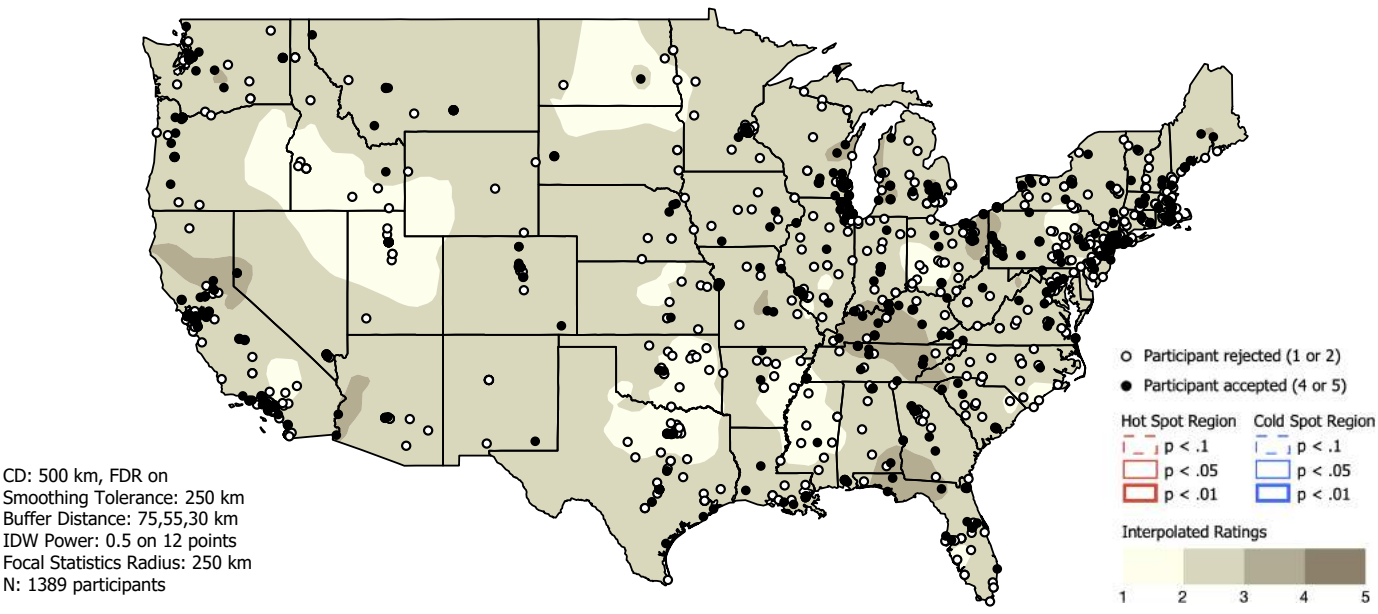
(17)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1114	Alls Alice brought to the party was bread.	1389	2.54	1.32	6, 6b
F1211	Alls I want is some new shoes.	349	2.95	1.37	11
F1212	Alls he said was that he wanted some potatoes.	349	3.04	1.37	11
F1213	Alls she and her friend bought was a candle.	349	2.87	1.36	11
F1214	Alls we ever wanted was for everyone to be happy.	349	2.96	1.32	11
F1215	Alls they said to bring was a bottle of wine.	349	2.95	1.39	11

The maps in below do not show strong, reliable geographic patterns when the FDR correction is used, possibly due to the fact that the construction is very widely known and socially salient. However, this is one case where the FDR correction may well be leading to false negatives. When the FDR is off, hot spots are found for each of the sentences in more or less the same areas, and they are in areas where we would have expected the construction to exist in the first place (specifically Kentucky, which is at the center of most of these hot spot regions).

With FDR Correction

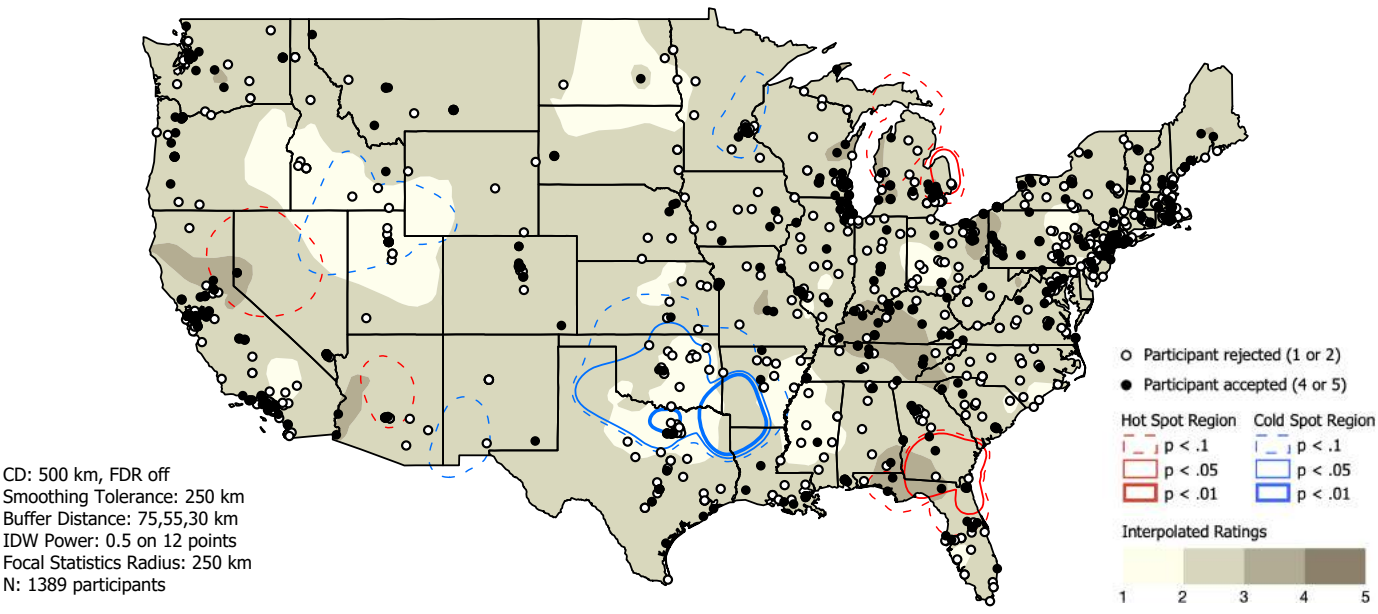
F1114: "Alls Alice brought to the party was bread."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

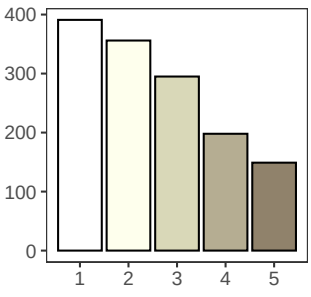
Without FDR Correction: Interpret with caution

F1114: "Alls Alice brought to the party was bread."

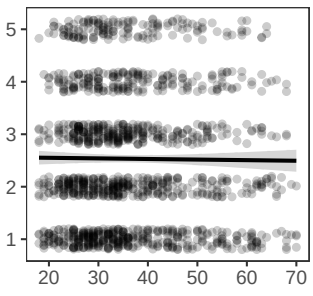


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1389 participants

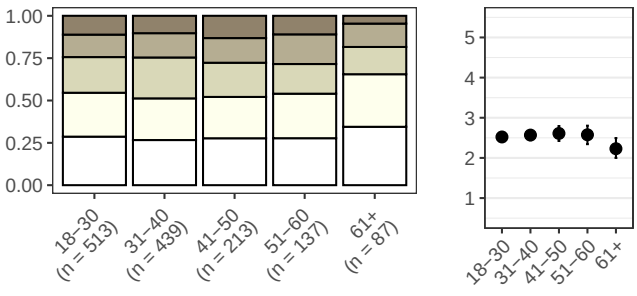
Judgments



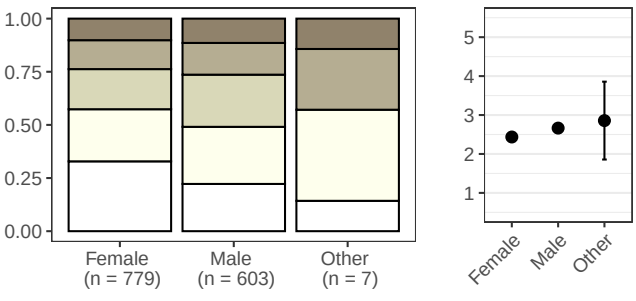
Age



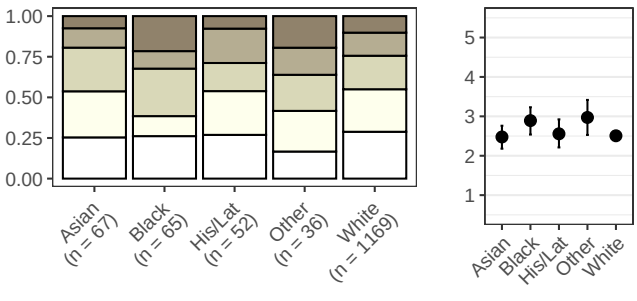
Age groups



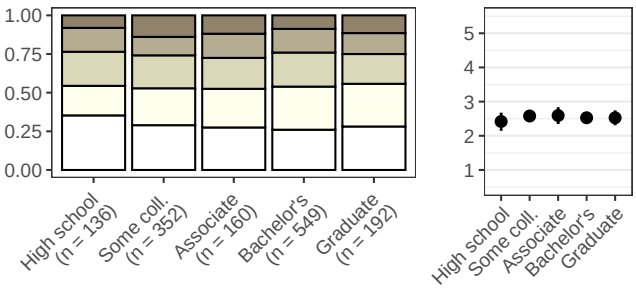
Gender



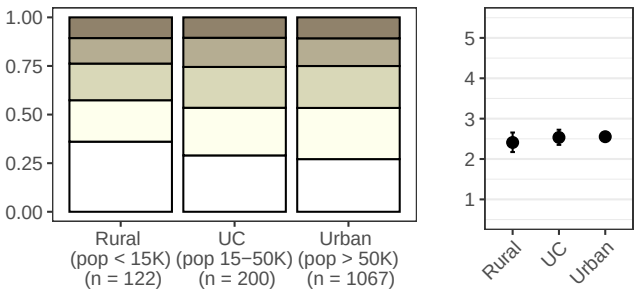
Race



Education

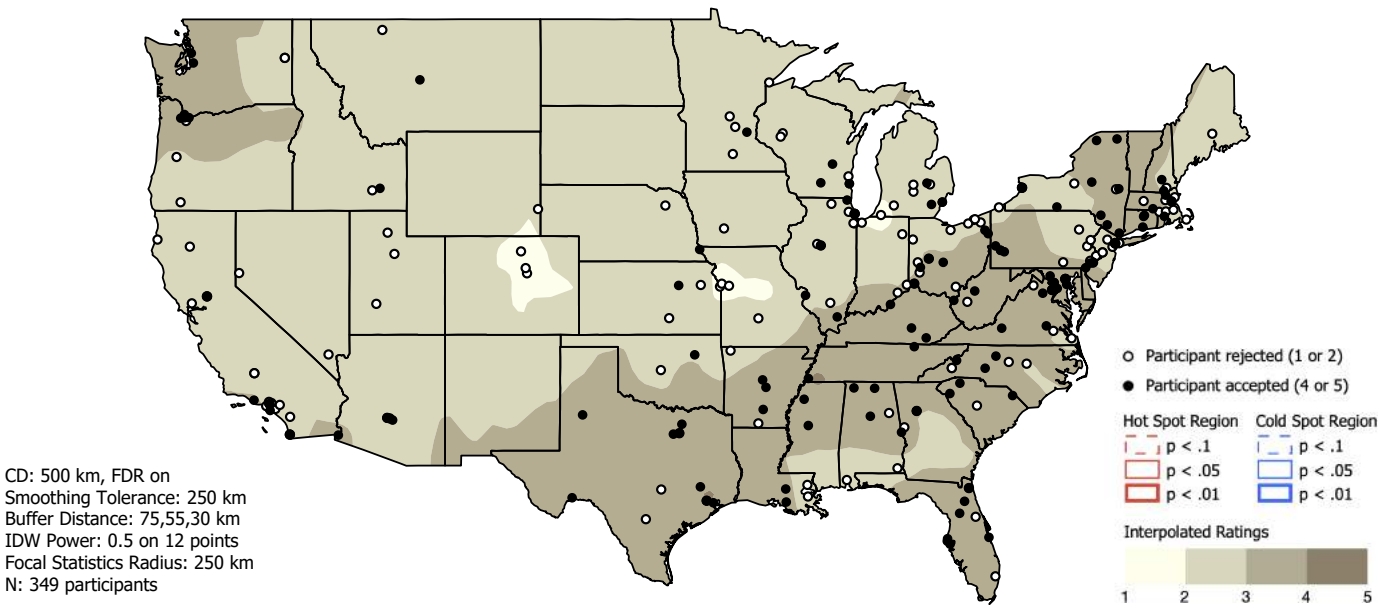


Urban/Rural



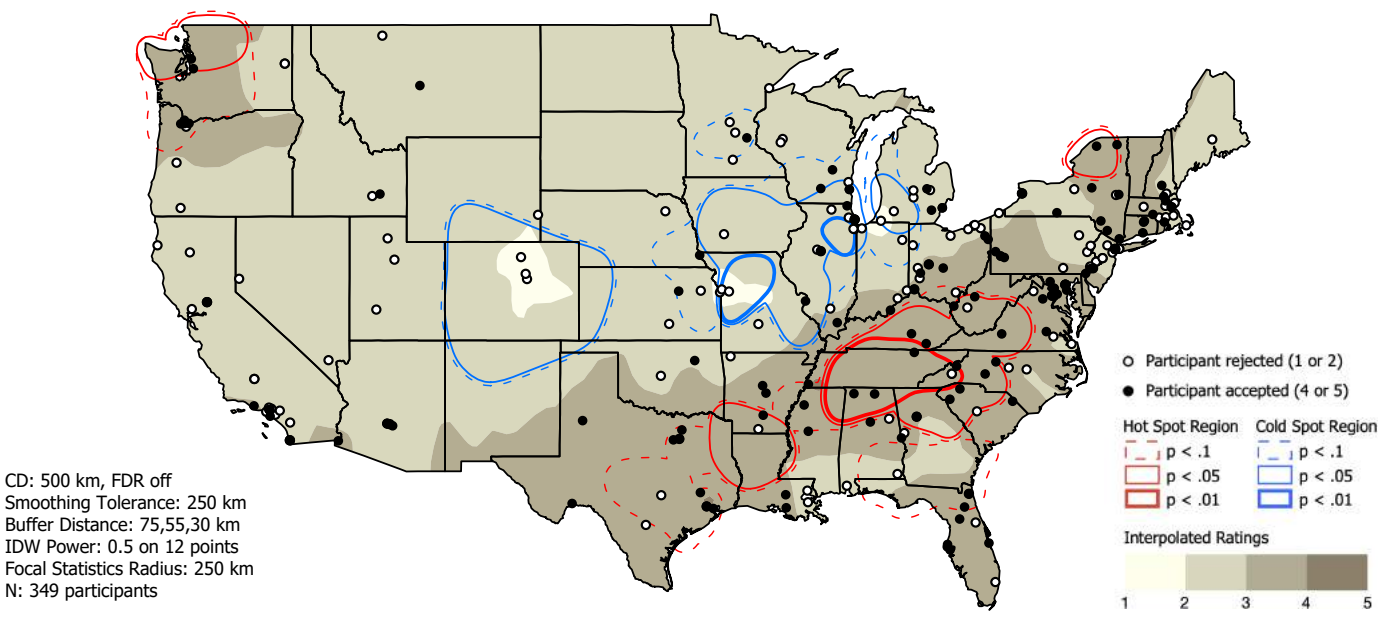
With FDR Correction

F1211: "Alls I want is some new shoes."

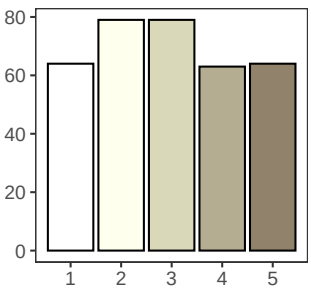


Without FDR Correction: Interpret with caution

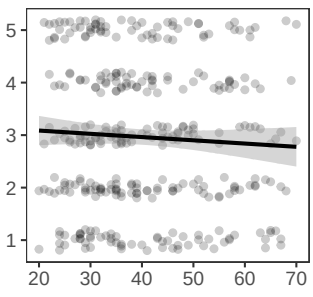
F1211: "Alls I want is some new shoes."



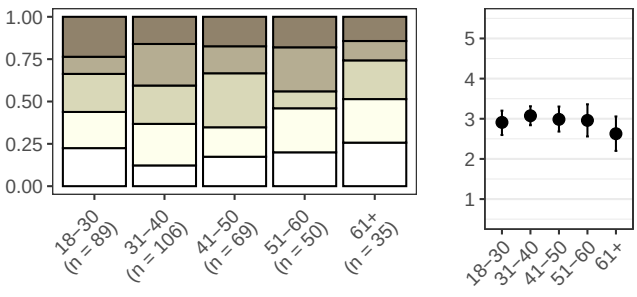
Judgments



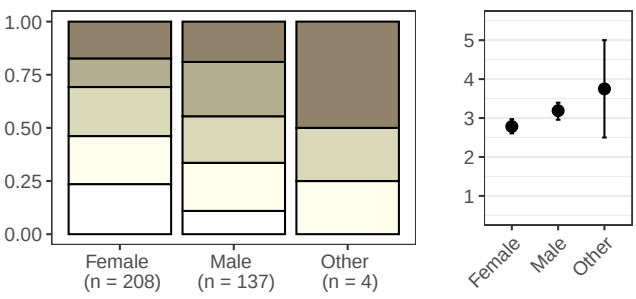
Age



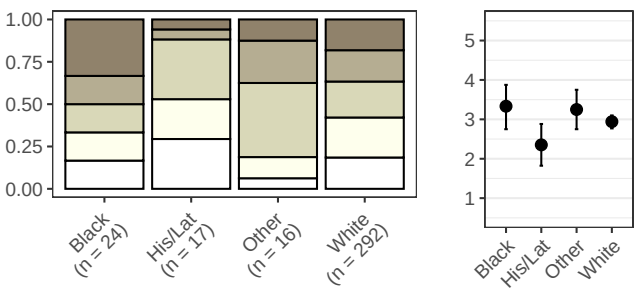
Age groups



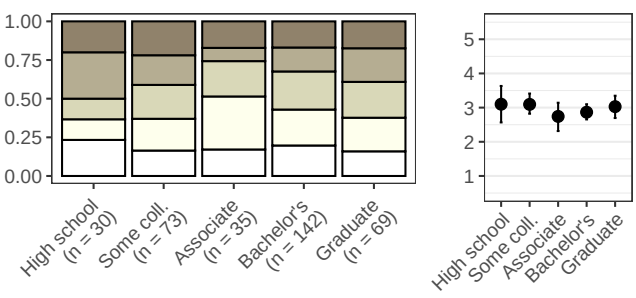
Gender



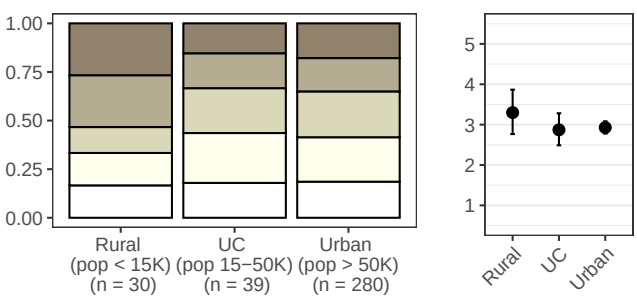
Race



Education

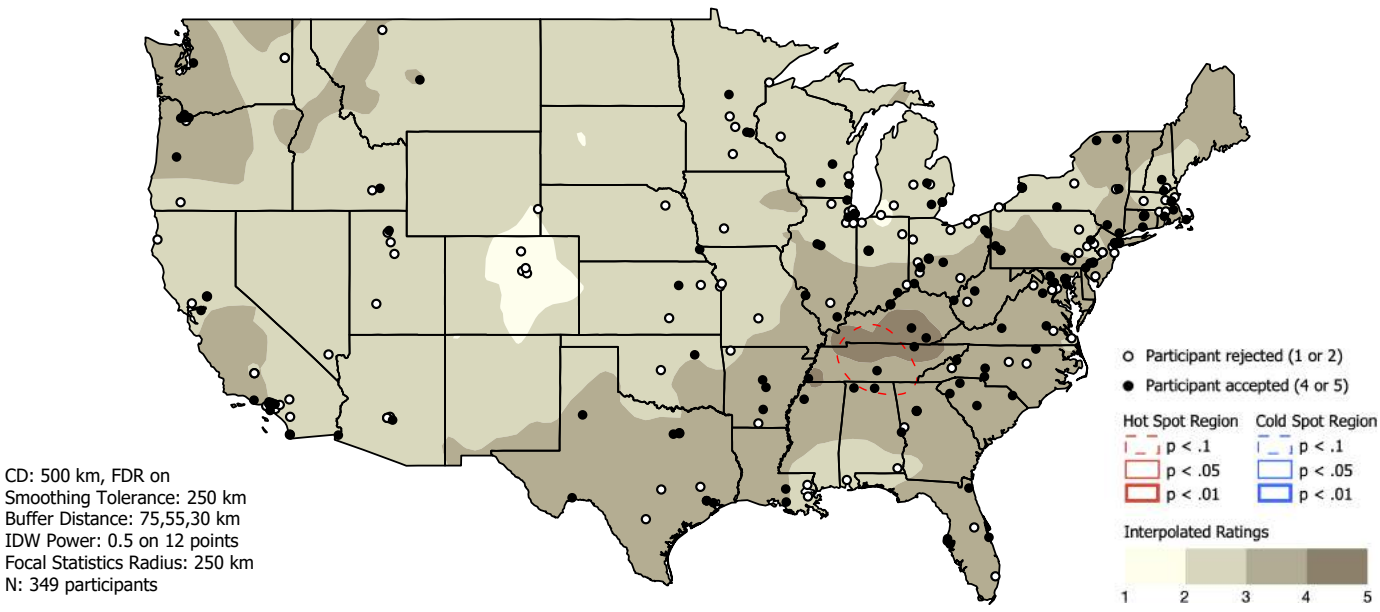


Urban/Rural



With FDR Correction

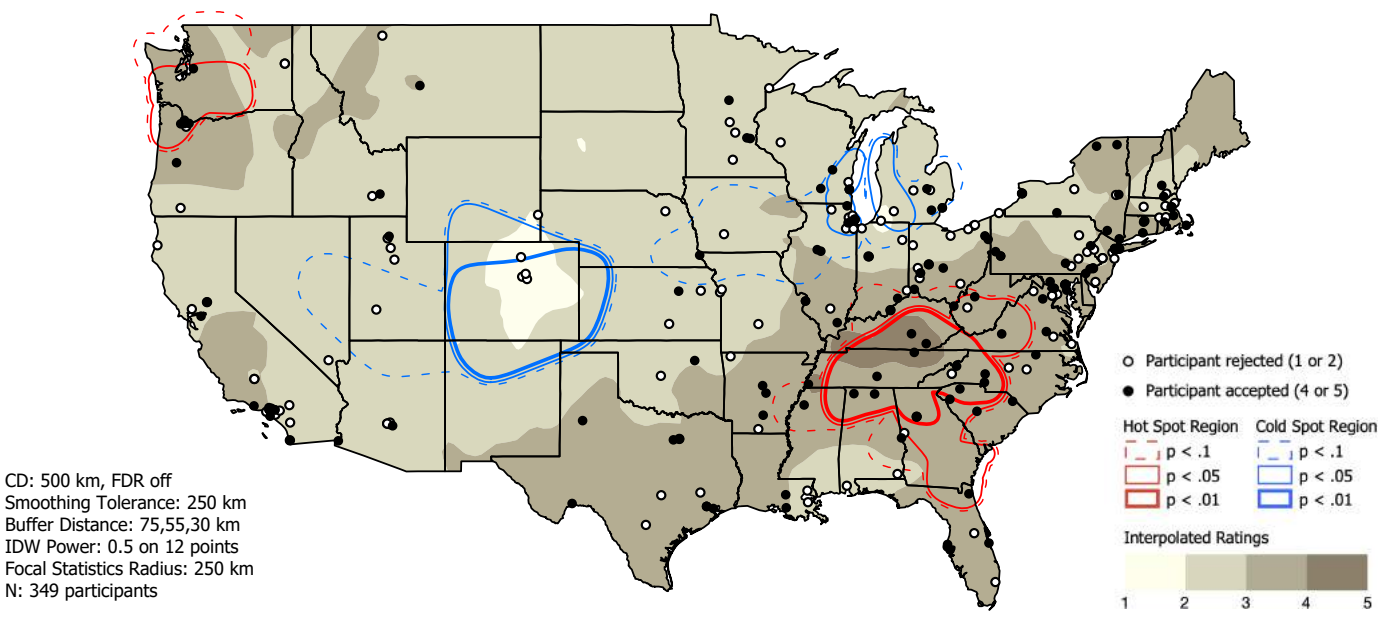
F1212: "Alls he said was that he wanted some potatoes."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

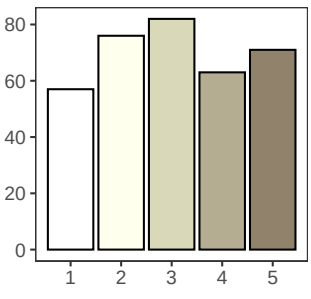
Without FDR Correction: Interpret with caution

F1212: "Alls he said was that he wanted some potatoes."

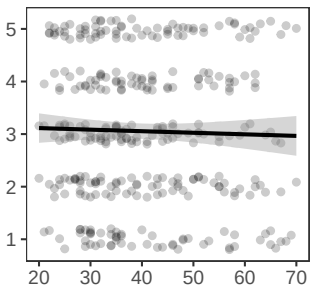


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

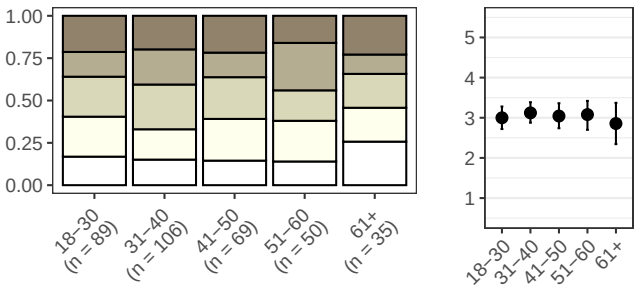
Judgments



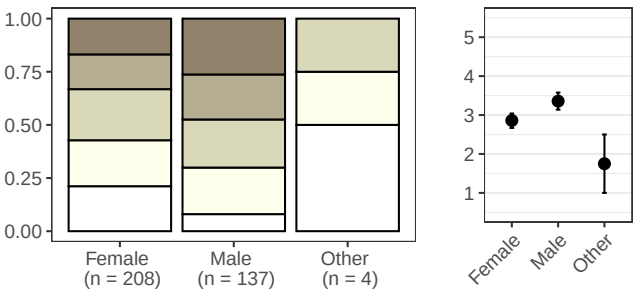
Age



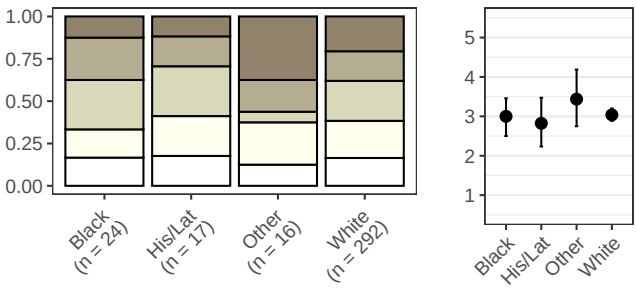
Age groups



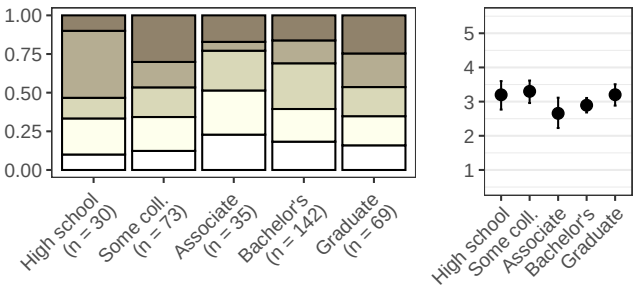
Gender



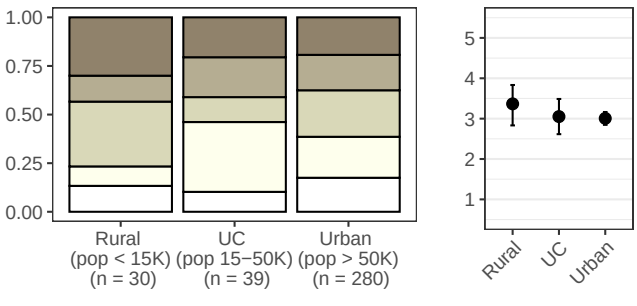
Race



Education

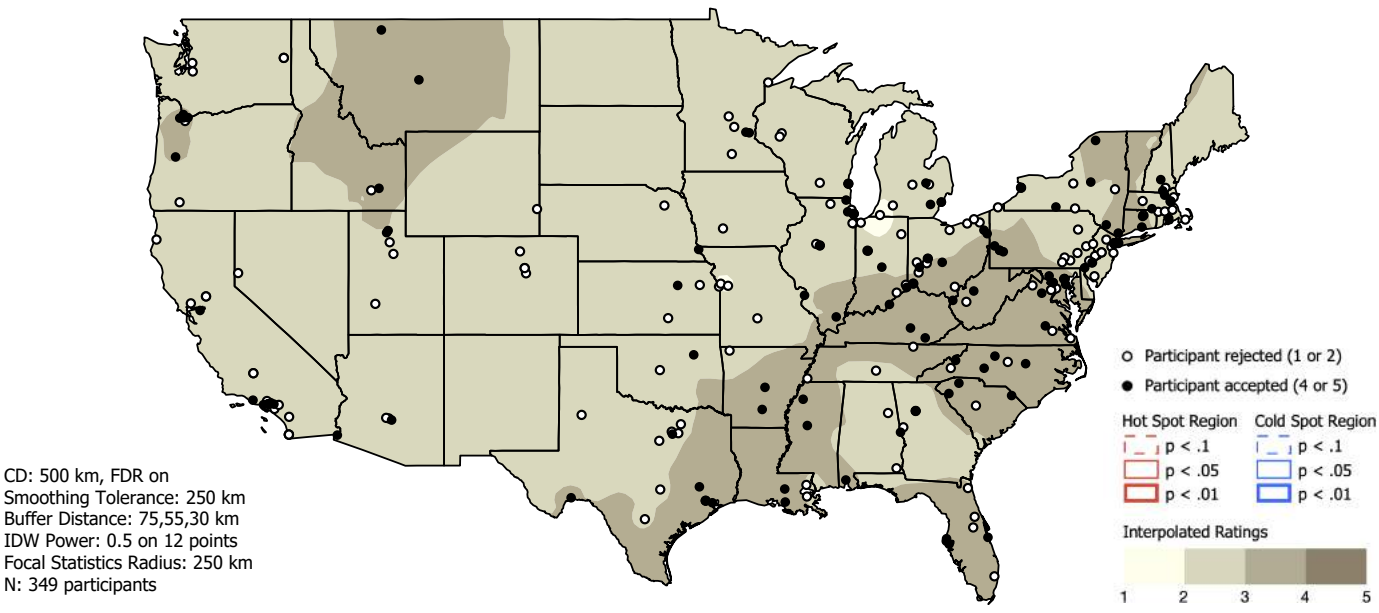


Urban/Rural



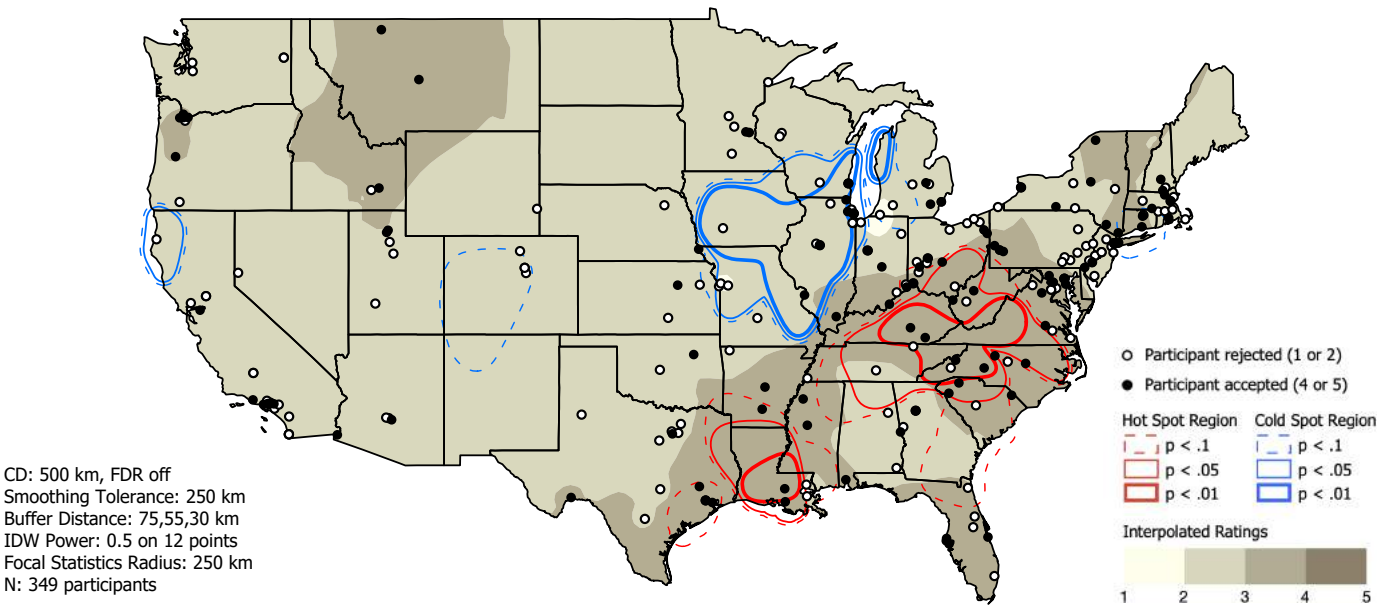
With FDR Correction

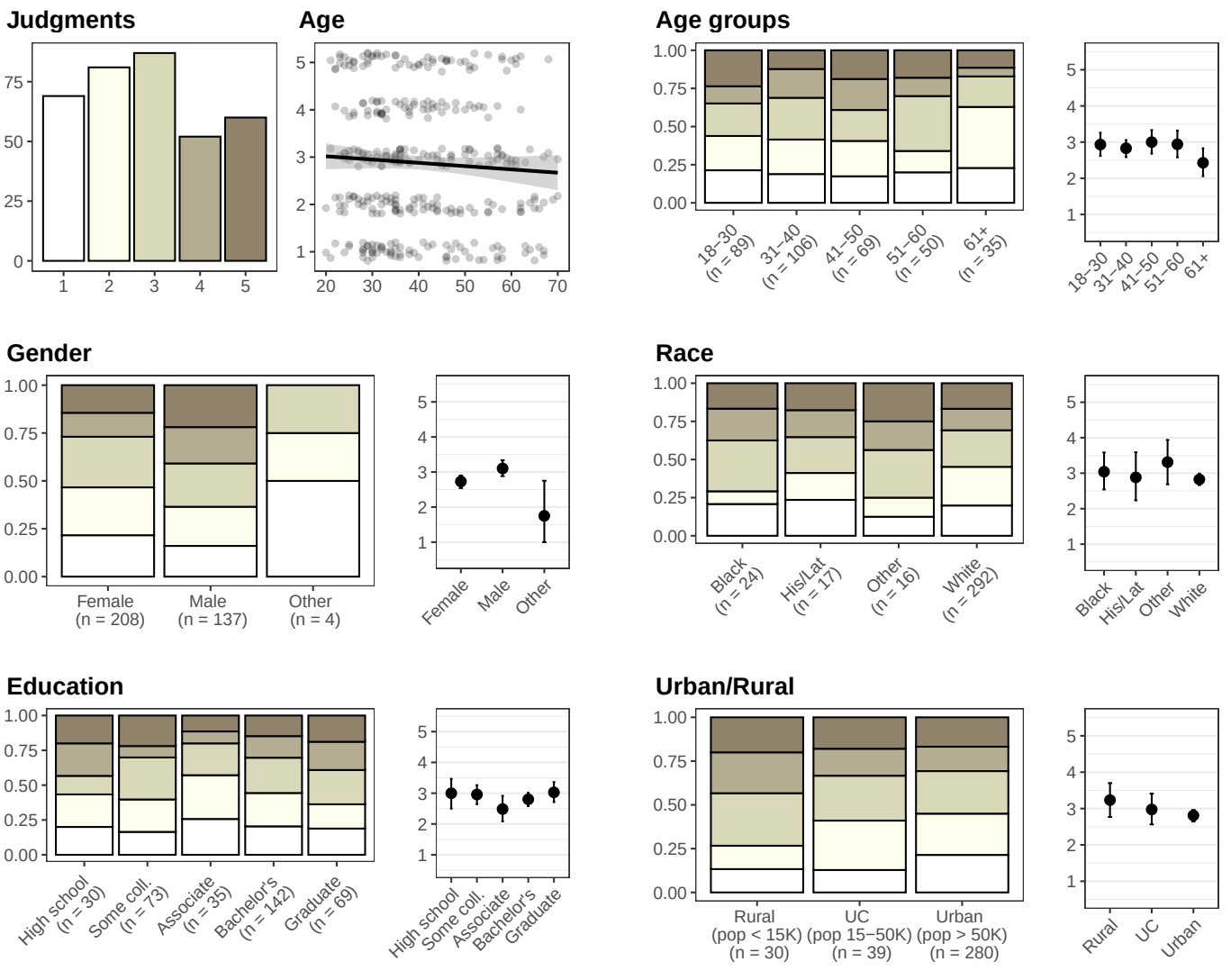
F1213: "Alls she and her friend bought was a candle."



Without FDR Correction: Interpret with caution

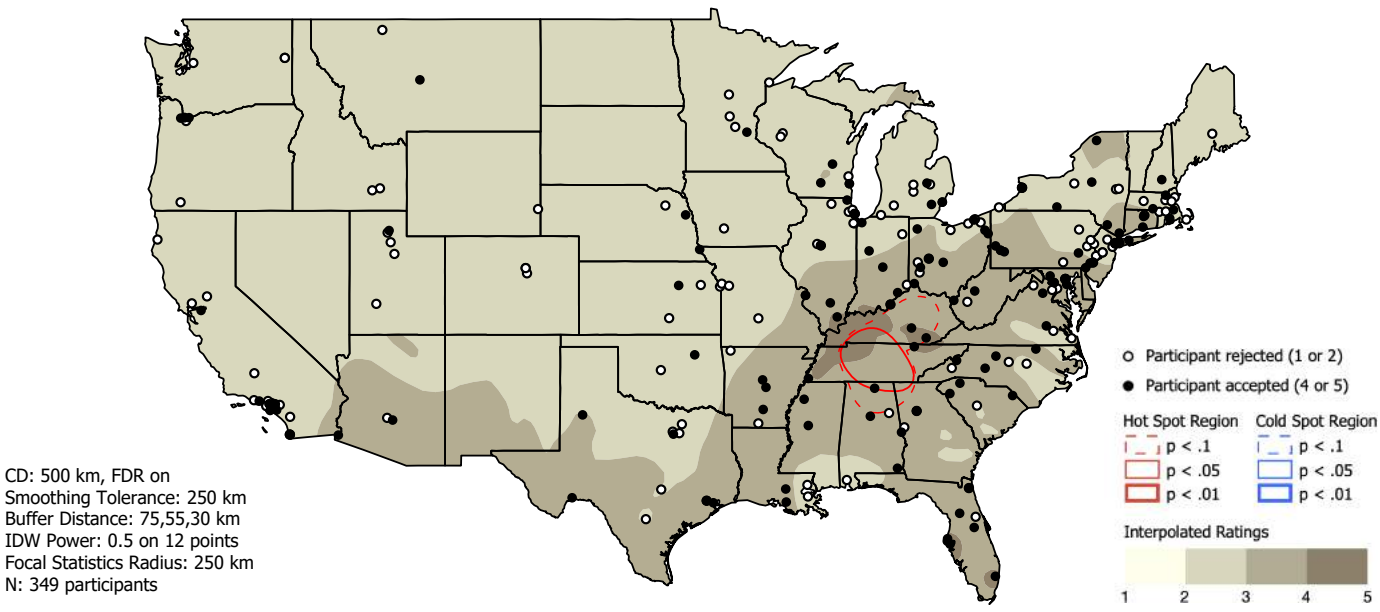
F1213: "Alls she and her friend bought was a candle."





With FDR Correction

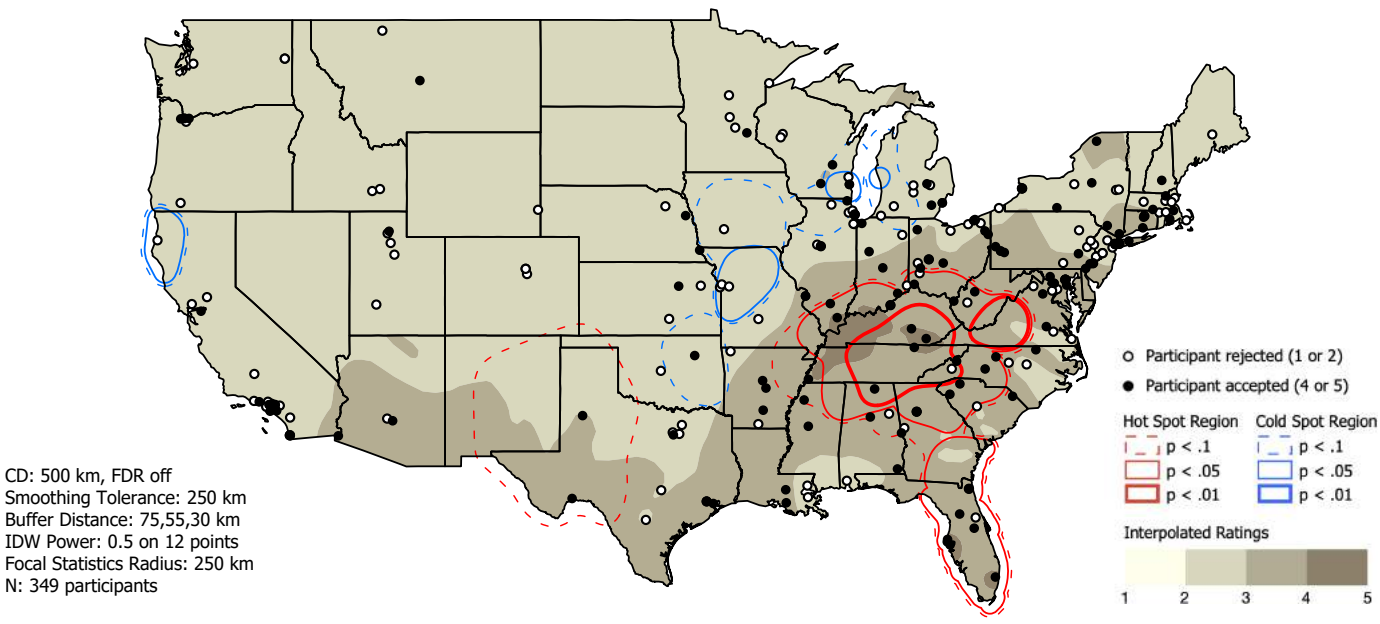
F1214: "Alls we ever wanted was for everyone to be happy."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

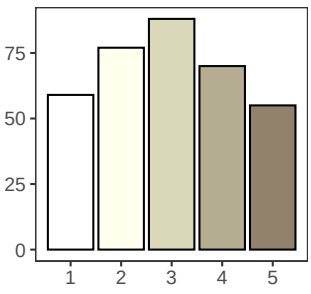
Without FDR Correction: Interpret with caution

F1214: "Alls we ever wanted was for everyone to be happy."

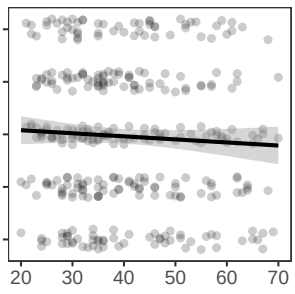


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

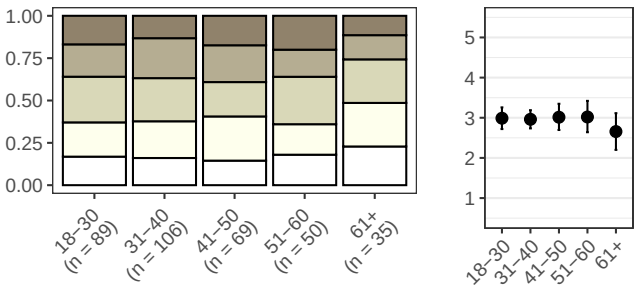
Judgments



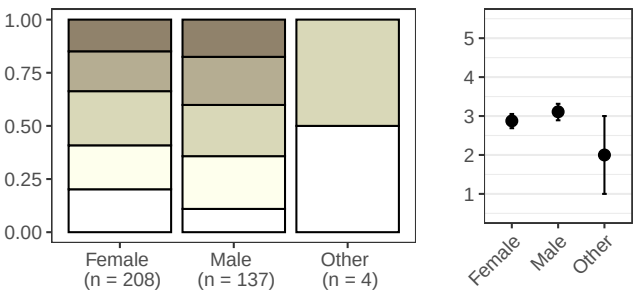
Age



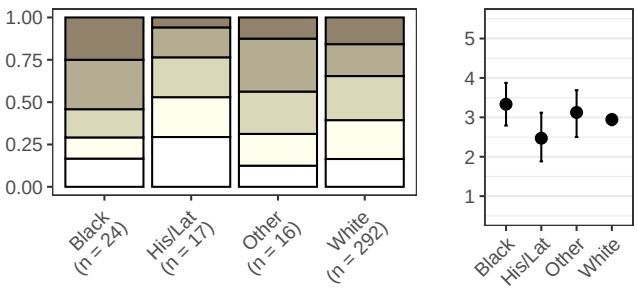
Age groups



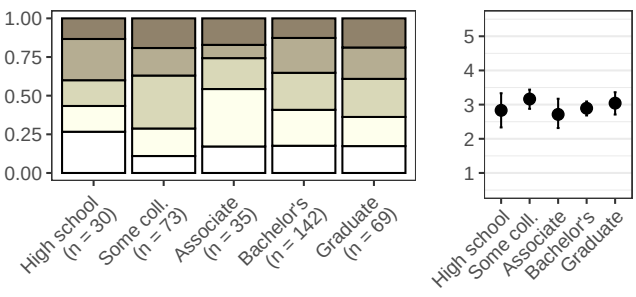
Gender



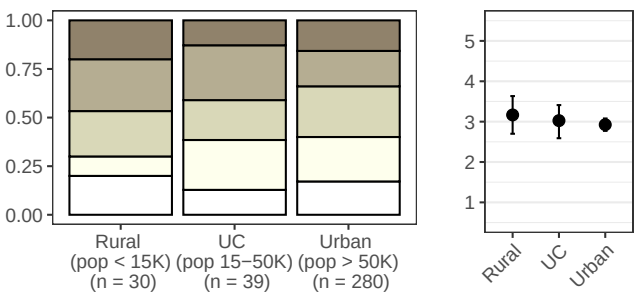
Race



Education

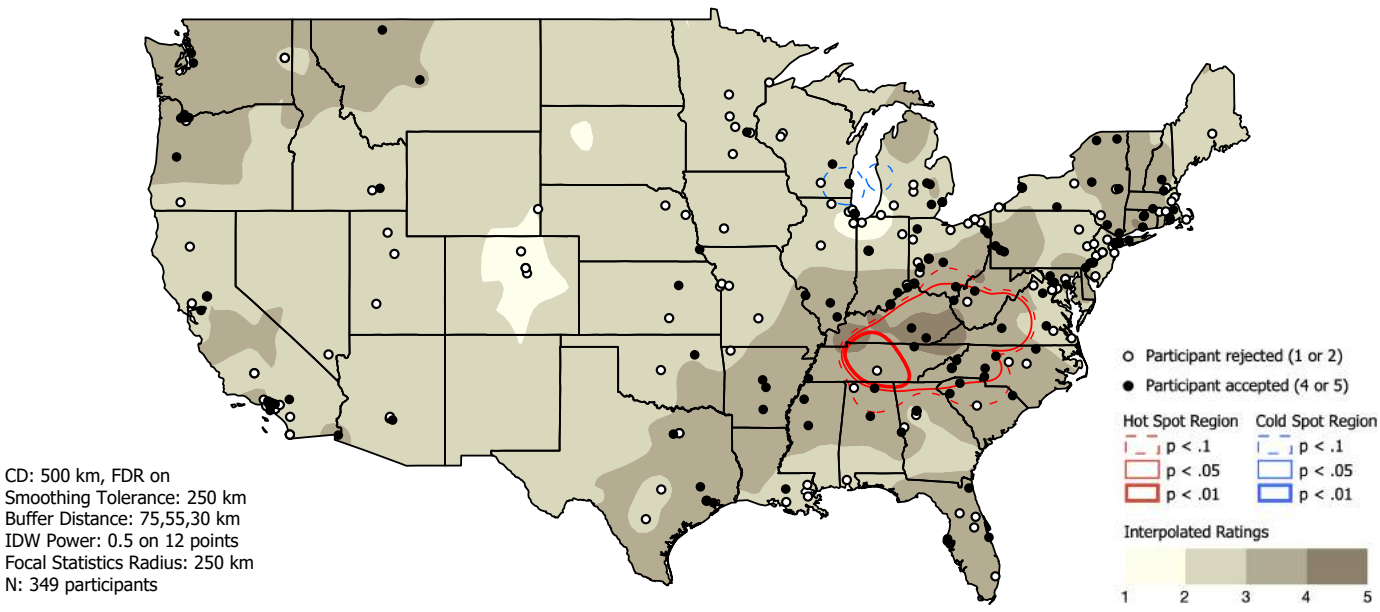


Urban/Rural



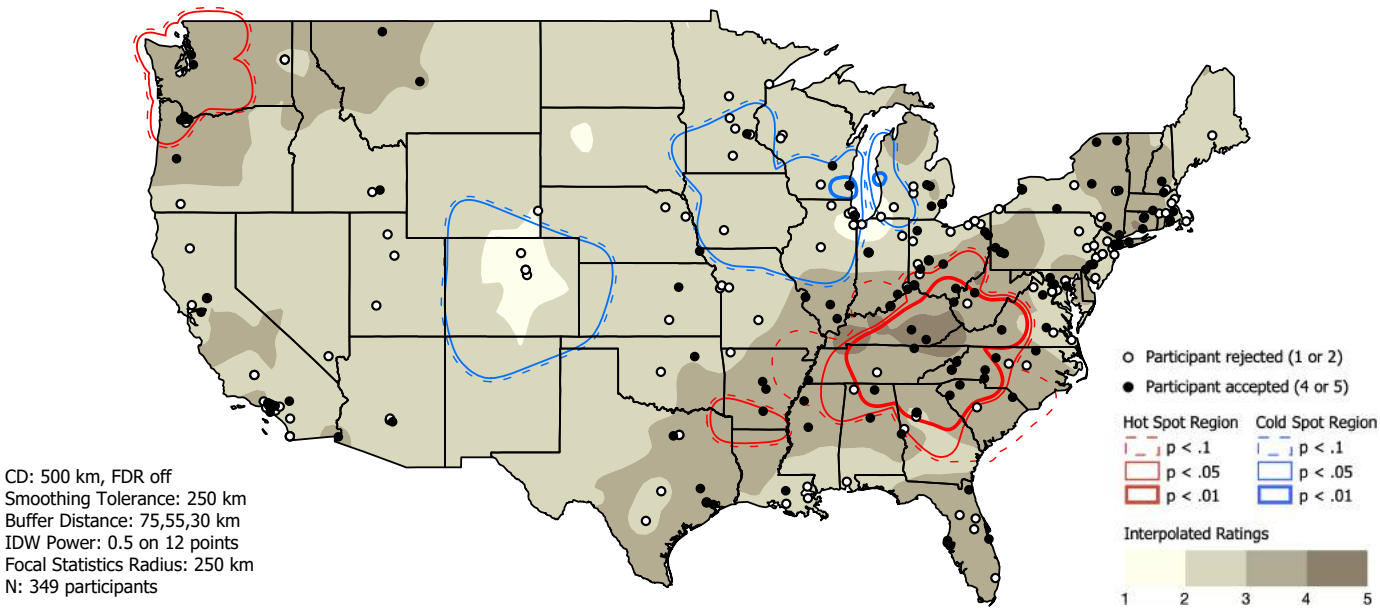
With FDR Correction

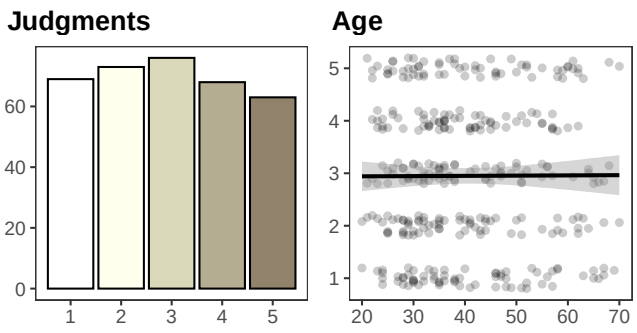
F1215: "Alls they said to bring was a bottle of wine."

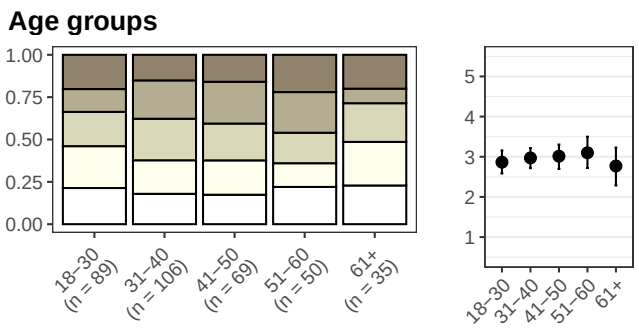


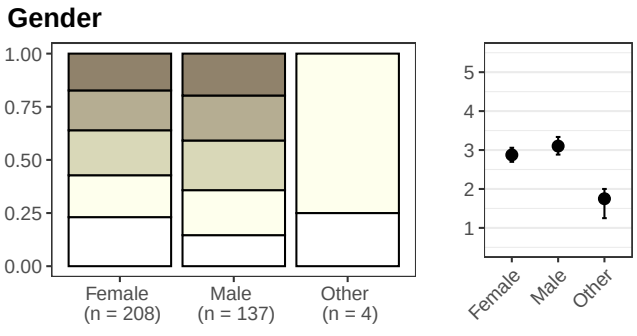
Without FDR Correction: Interpret with caution

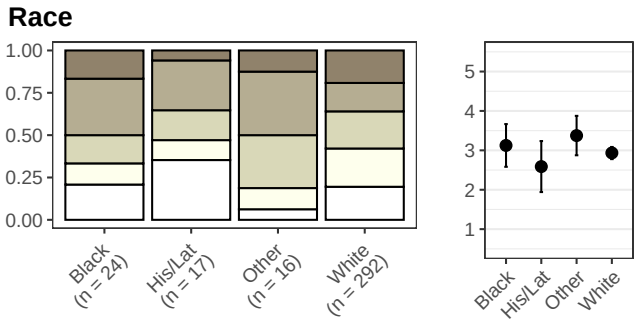
F1215: "Alls they said to bring was a bottle of wine."

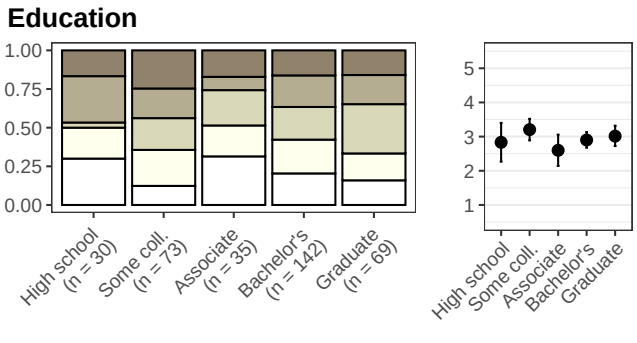


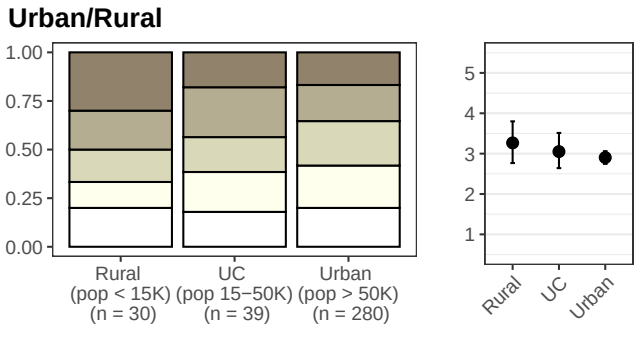












5.3 *Come with*

In addition to the five Survey 11 sentences in (18), the *come with* construction was included with one pilot sentence on Surveys 6 and 9.

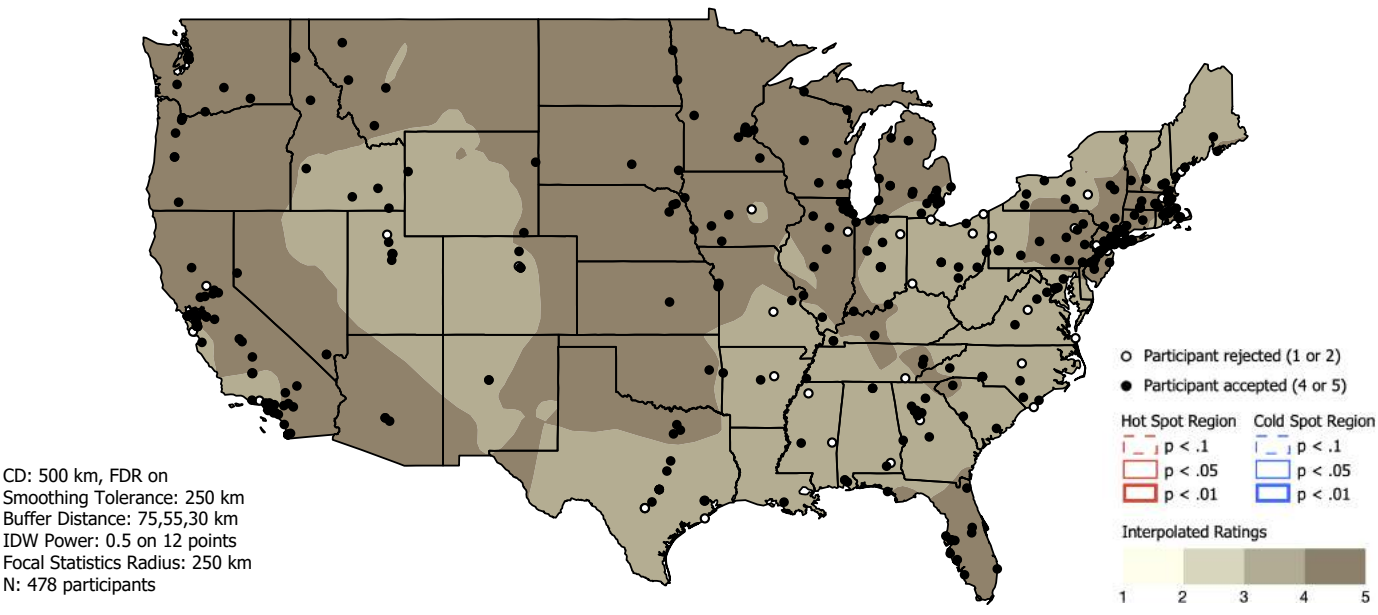
(18)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1113	They are leaving on a great adventure; you should go with.	478	4.03	1.14	6
F1162	It is a good idea to take a gun with.	807	2.70	1.32	9
F1216	If I go to the store, do you want to come with?	349	4.15	1.13	11
F1217	If you go there, bring a friend with.	349	3.50	1.26	11
F1218	I'll find an extra rope you can take with.	349	3.66	1.25	11
F1219	She has about ten blankets that she wants to bring with.	349	3.71	1.26	11
F1220	His sisters were going, so he asked if he could go with.	349	3.89	1.22	11

1162 is a sentence that we frequently cite and present because it shows a fairly strong regional distinction, despite being fairly widely accepted nationwide. A map has been published in the appendix of Wood et al. (2020). The other sentences contribute to a map published on the YGDP website, which reveals a regional distribution where it is most accepted in the Upper Midwest, which is what we would expect based on previous literature on the phenomenon (Spartz 2008). In the maps below, we present both FDR and non-FDR versions of each sentence. The reason is that although some of the sentences are quite widely accepted, the regions that are picked out on non-FDR maps are consistent across maps, and consistent with the regions picked out when it is significant in the FDR maps.

With FDR Correction

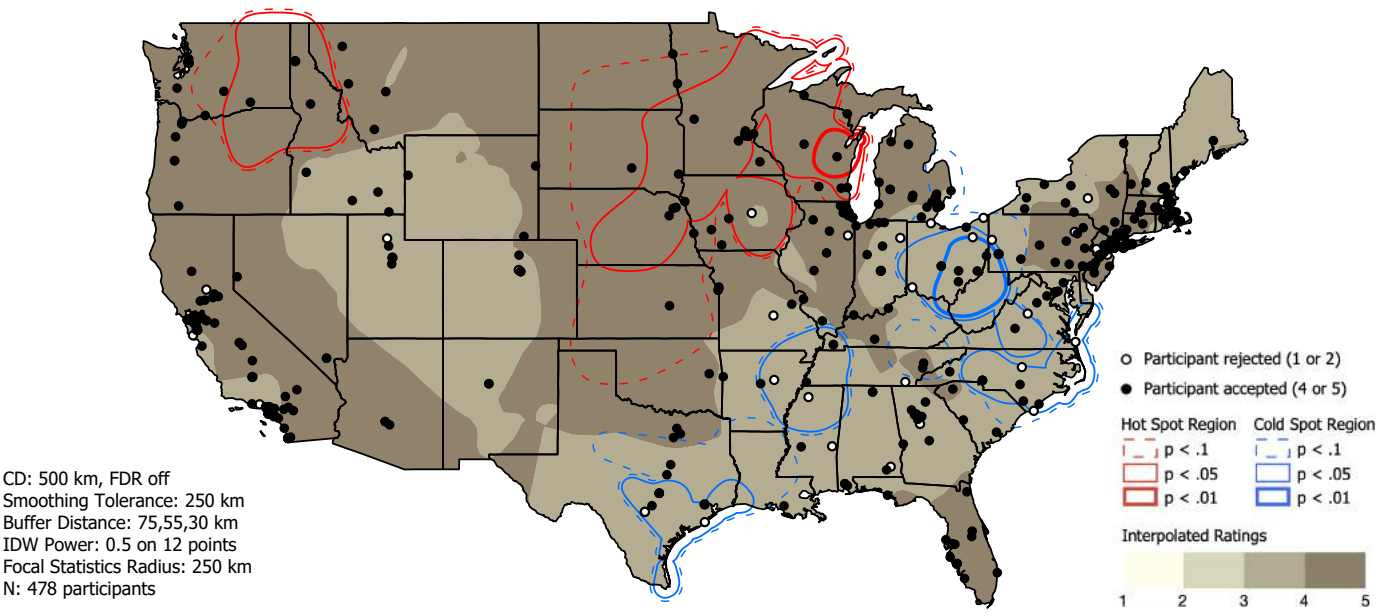
F113: "They are leaving on a great adventure; you should go with."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 478 participants

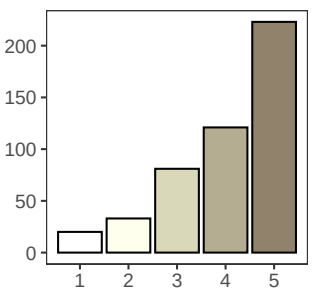
Without FDR Correction: Interpret with caution

F113: "They are leaving on a great adventure; you should go with."

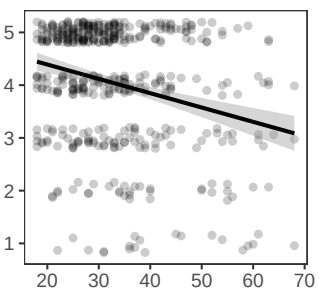


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 478 participants

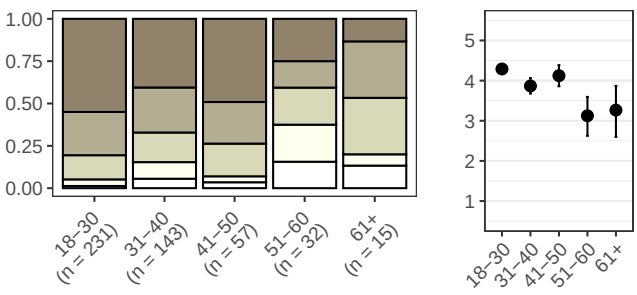
Judgments



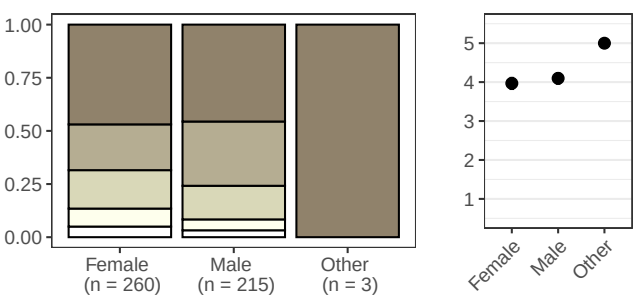
Age



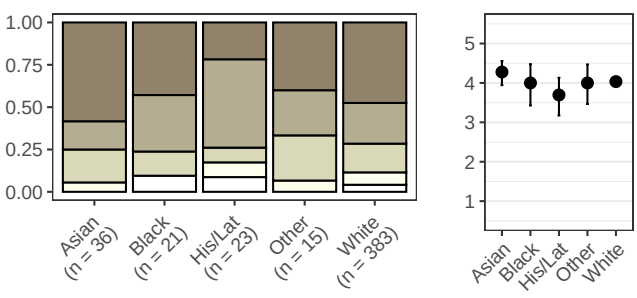
Age groups



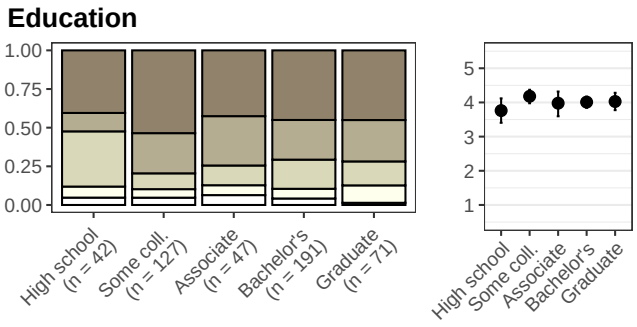
Gender



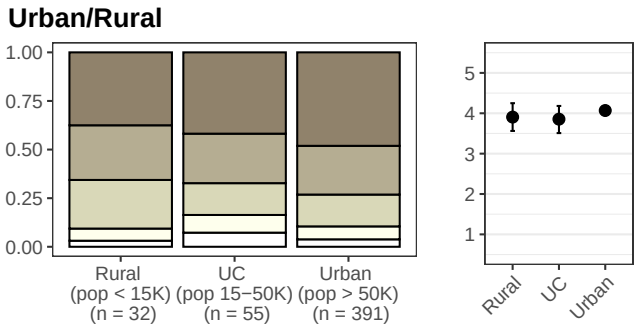
Race



Education

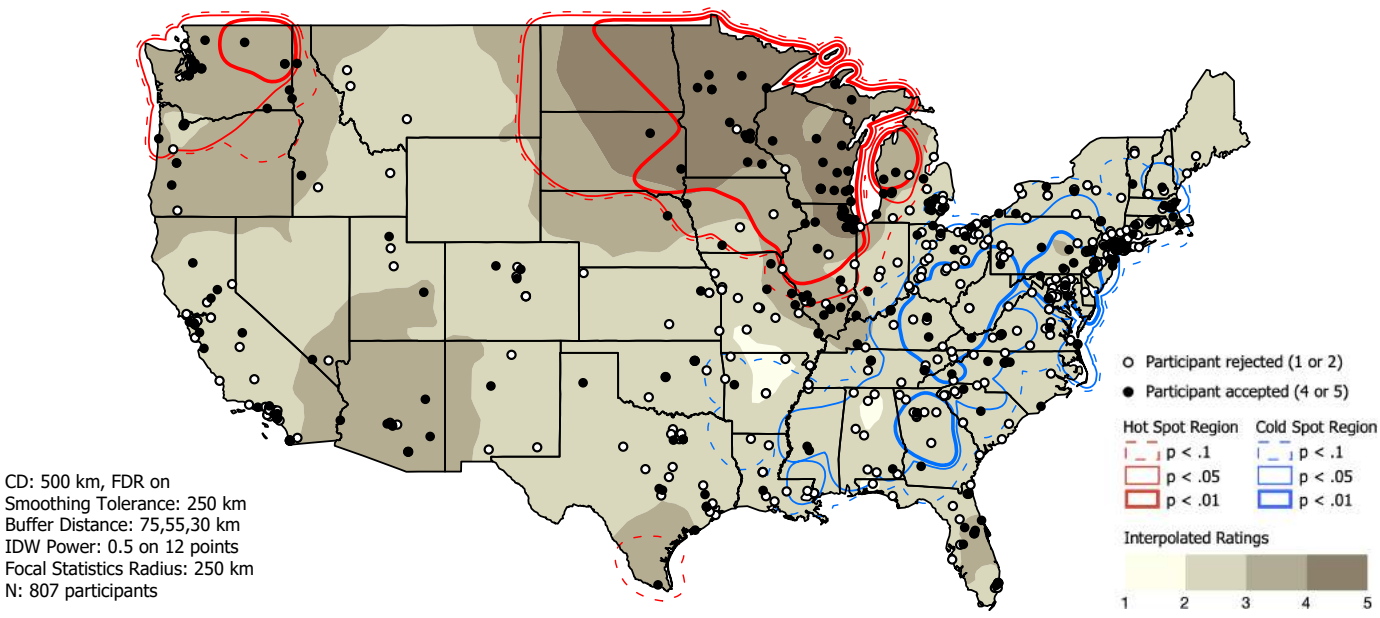


Urban/Rural



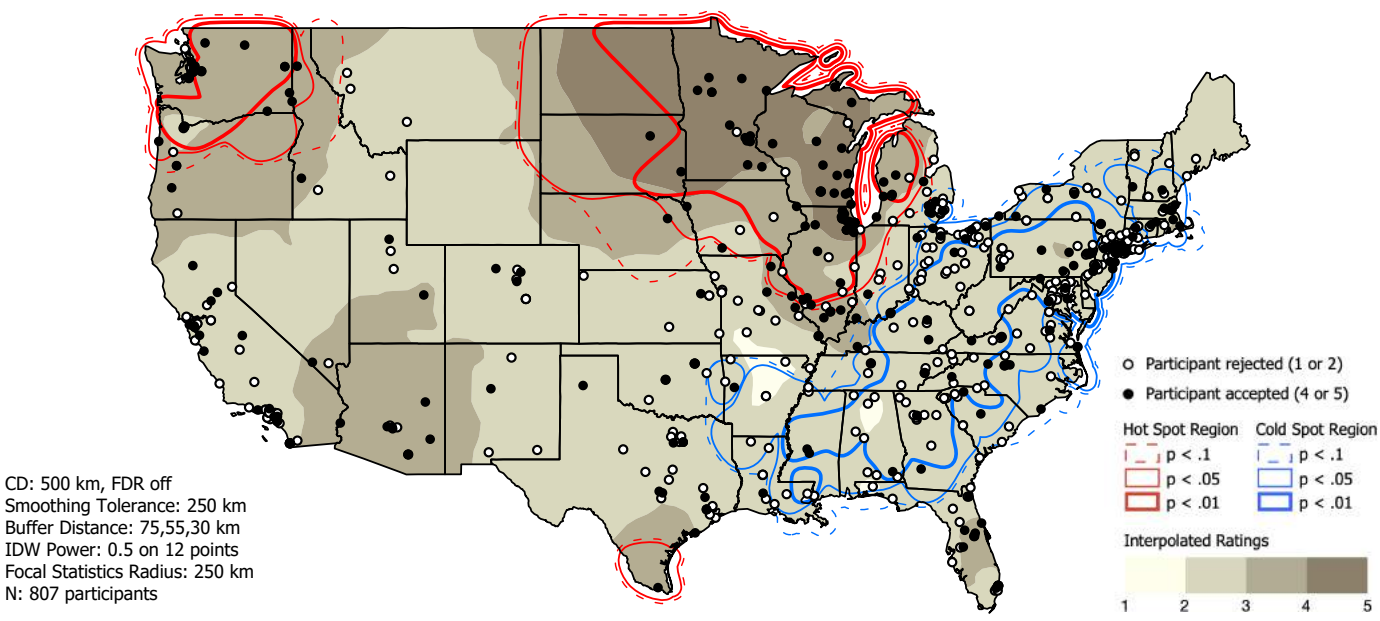
With FDR Correction

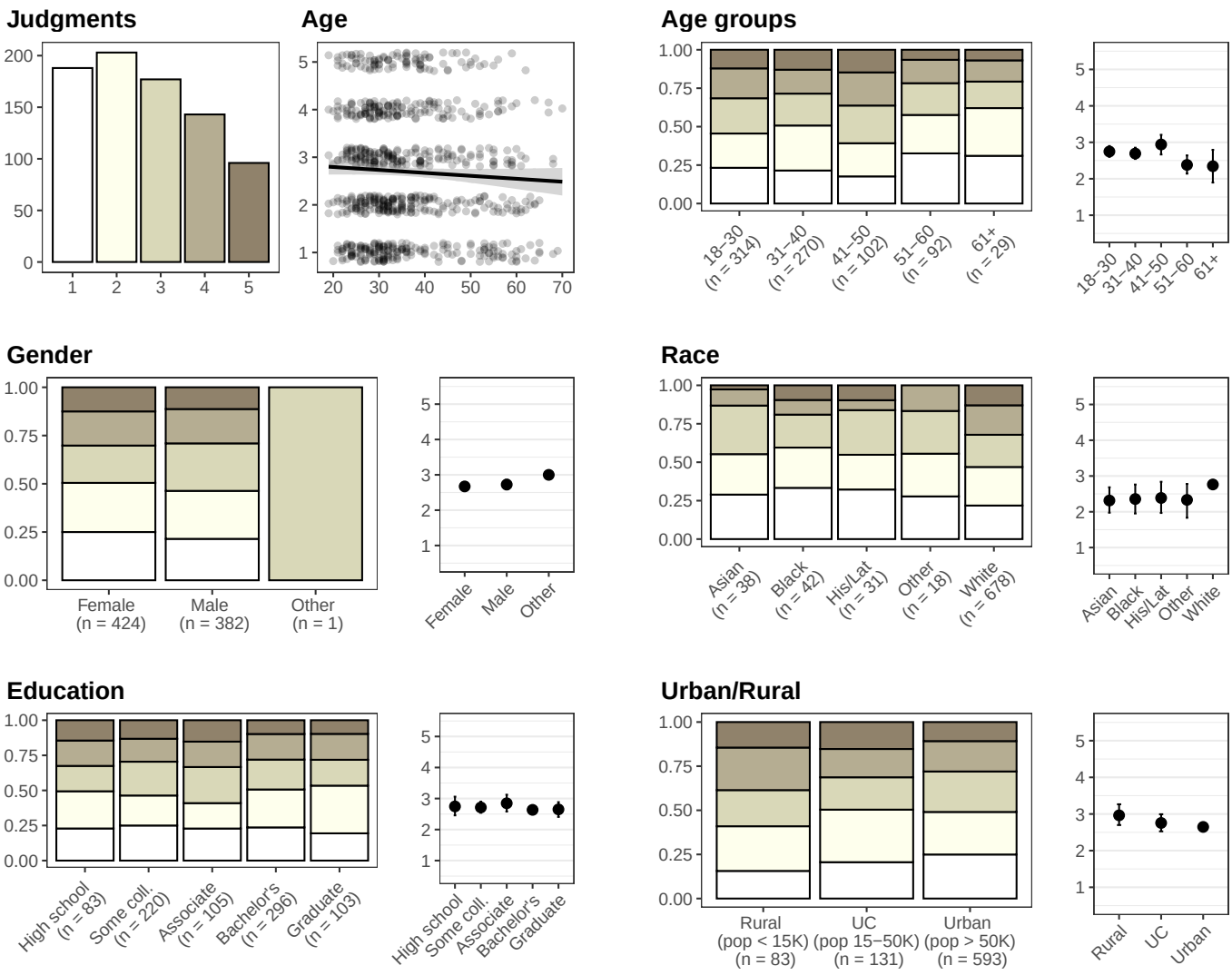
F1162: "It is a good idea to take a gun with."



Without FDR Correction: Interpret with caution

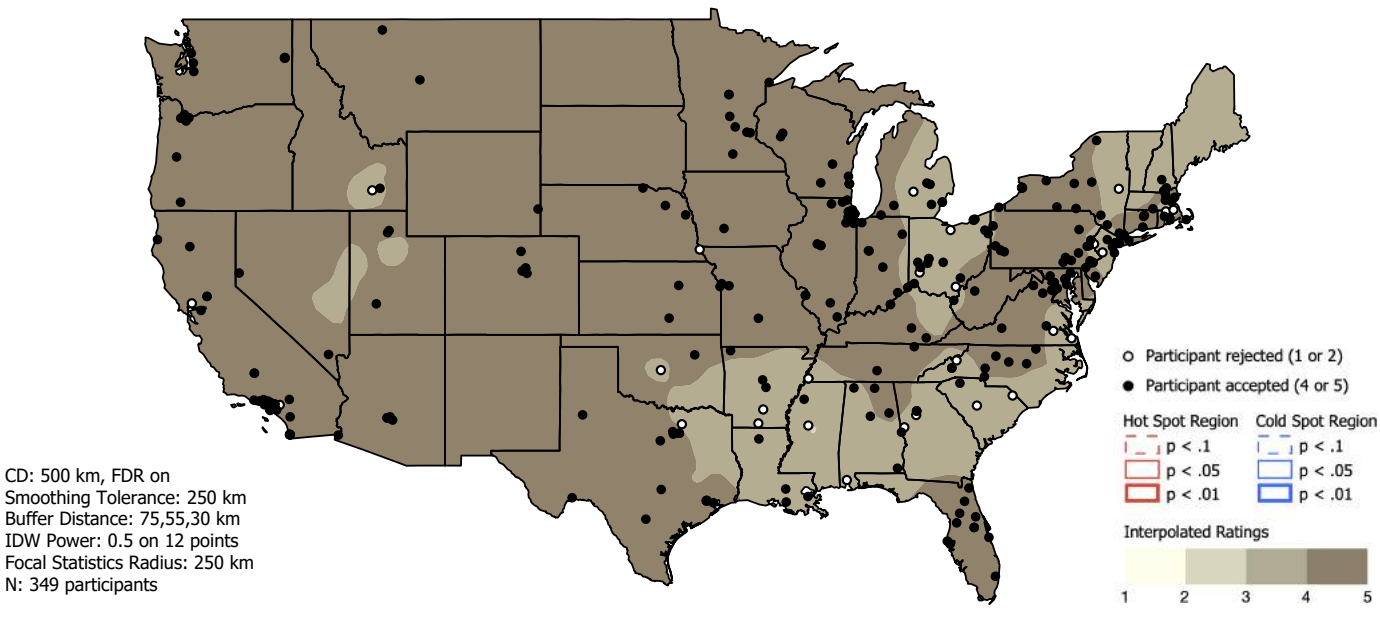
F1162: "It is a good idea to take a gun with."





With FDR Correction

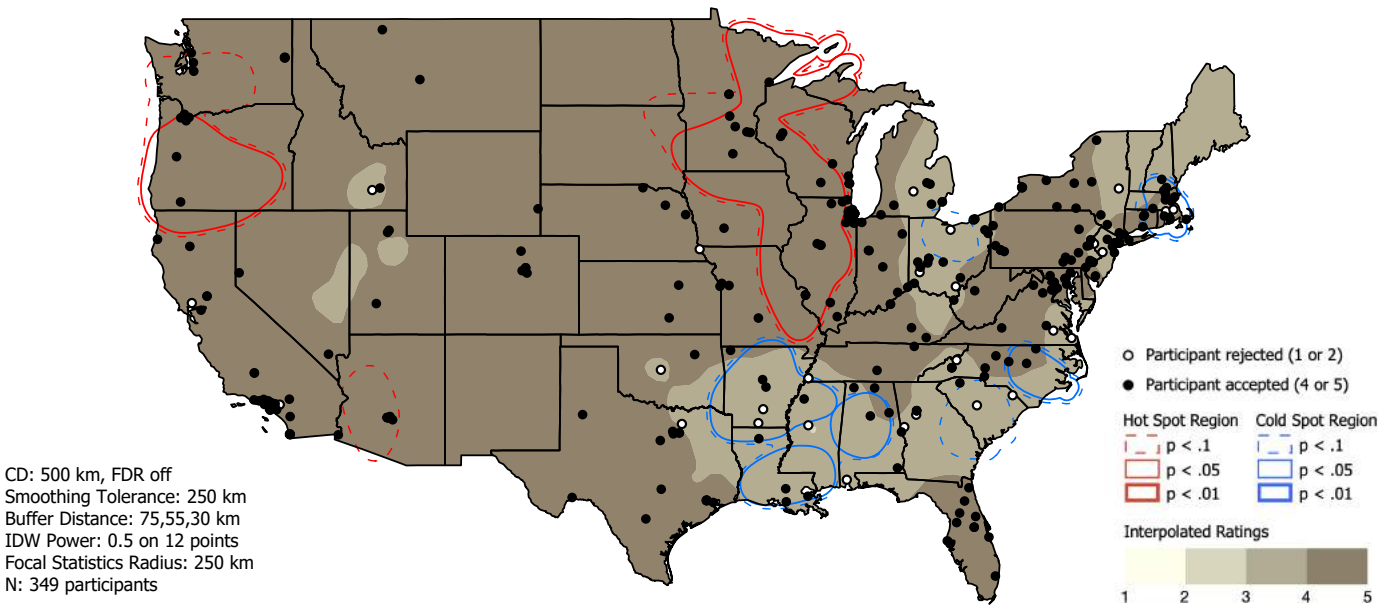
F1216: "If I go to the store, do you want to come with?"



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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

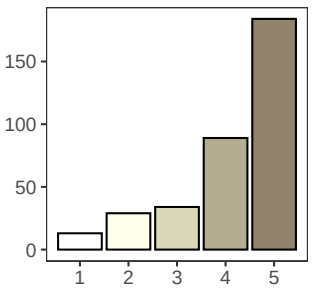
Without FDR Correction: Interpret with caution

F1216: "If I go to the store, do you want to come with?"

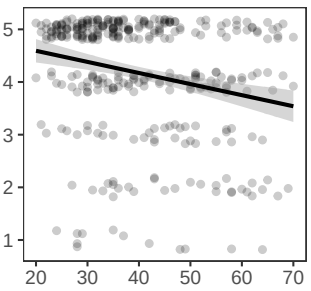


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
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N: 349 participants

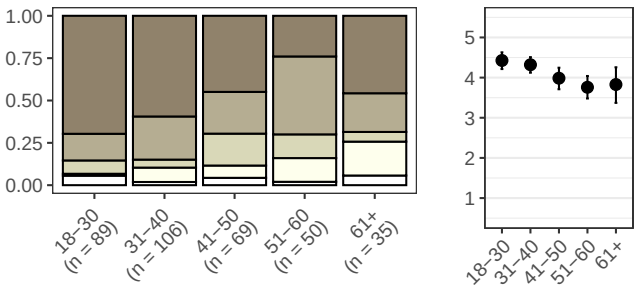
Judgments



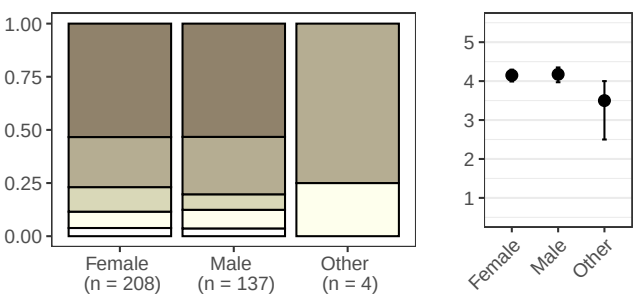
Age



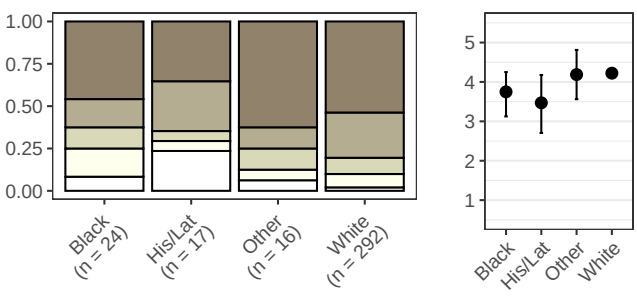
Age groups



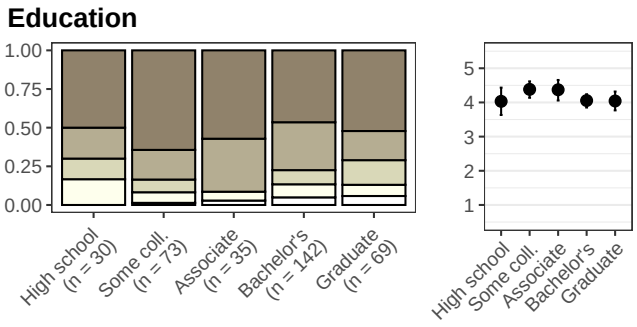
Gender



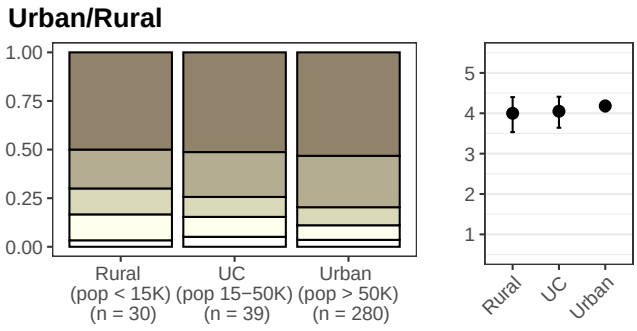
Race



Education

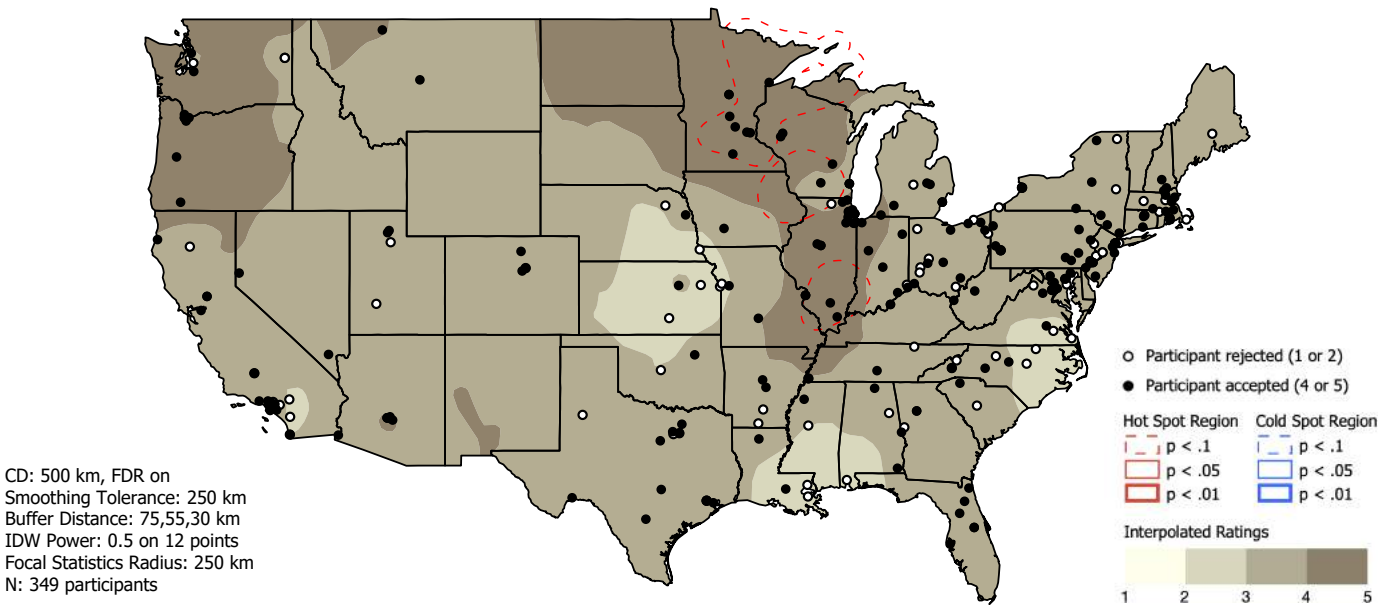


Urban/Rural



With FDR Correction

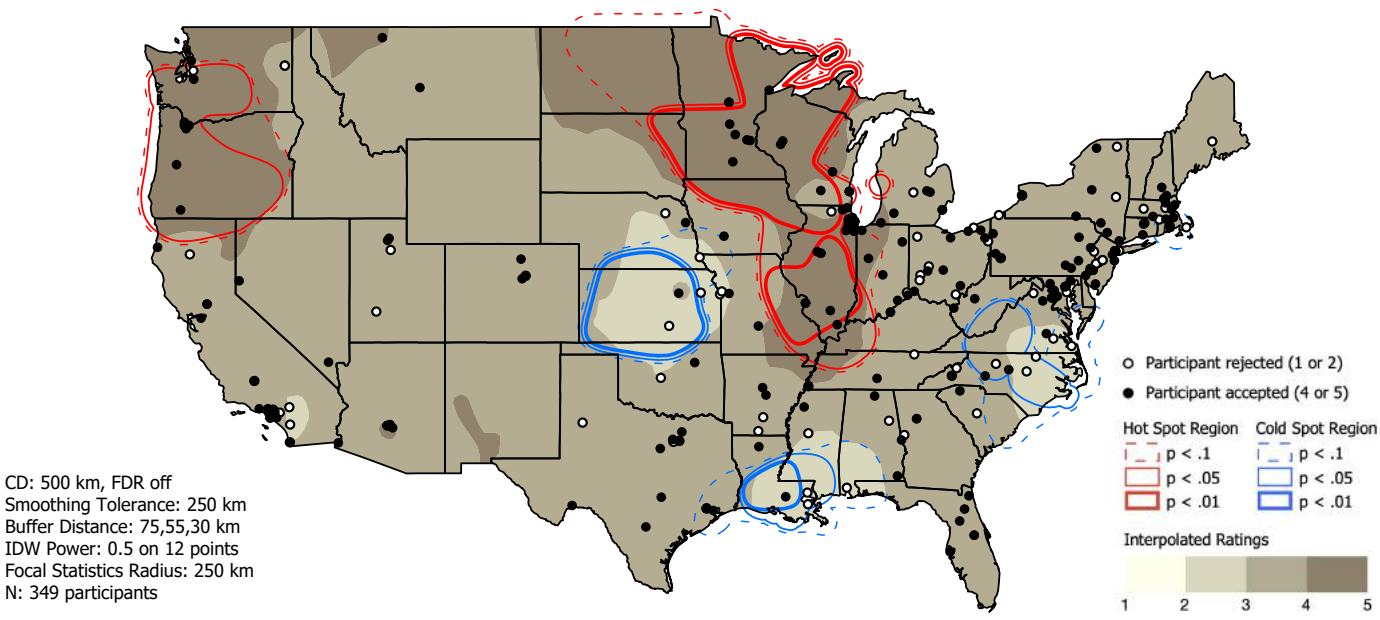
F1217: "If you go there, bring a friend with."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

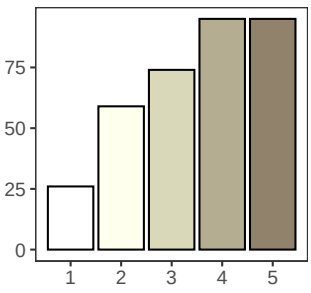
Without FDR Correction: Interpret with caution

F1217: "If you go there, bring a friend with."

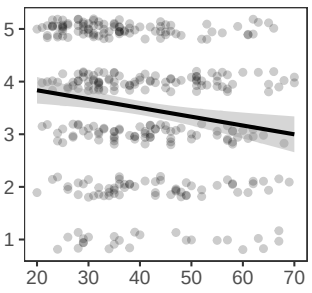


CD: 500 km, FDR off
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Focal Statistics Radius: 250 km
N: 349 participants

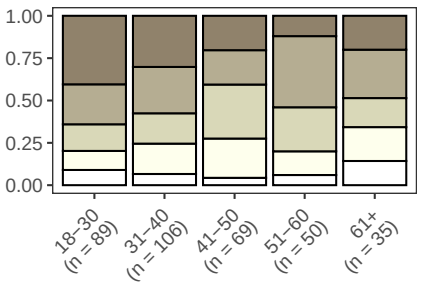
Judgments

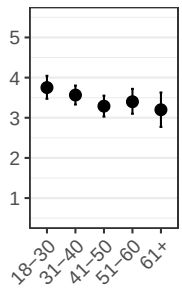


Age

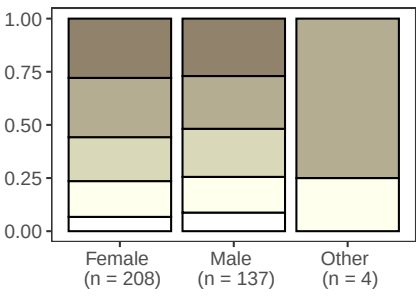


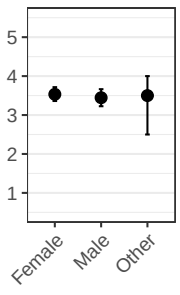
Age groups



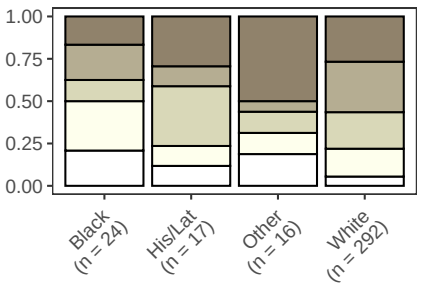


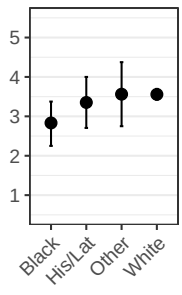
Gender



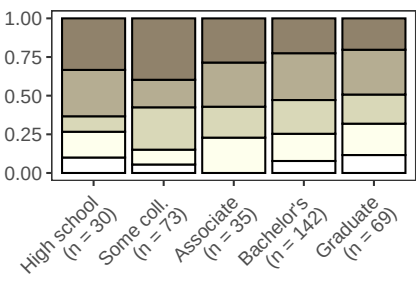


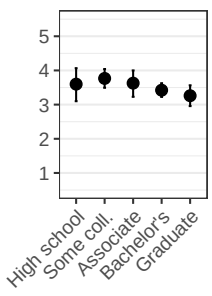
Race



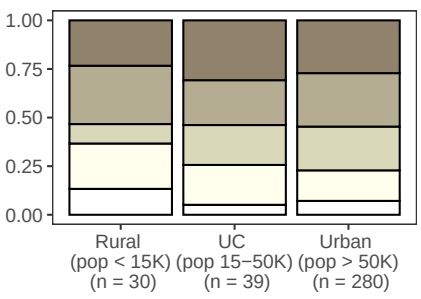


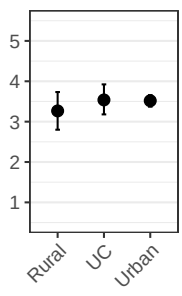
Education





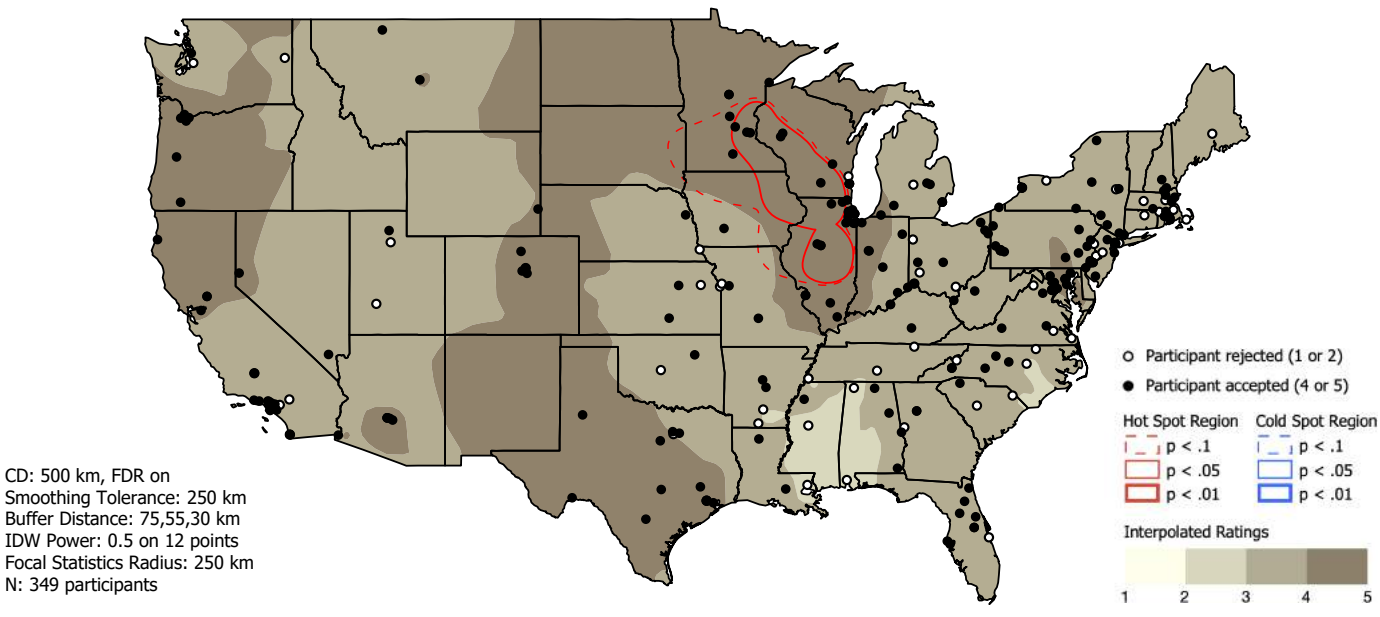
Urban/Rural





With FDR Correction

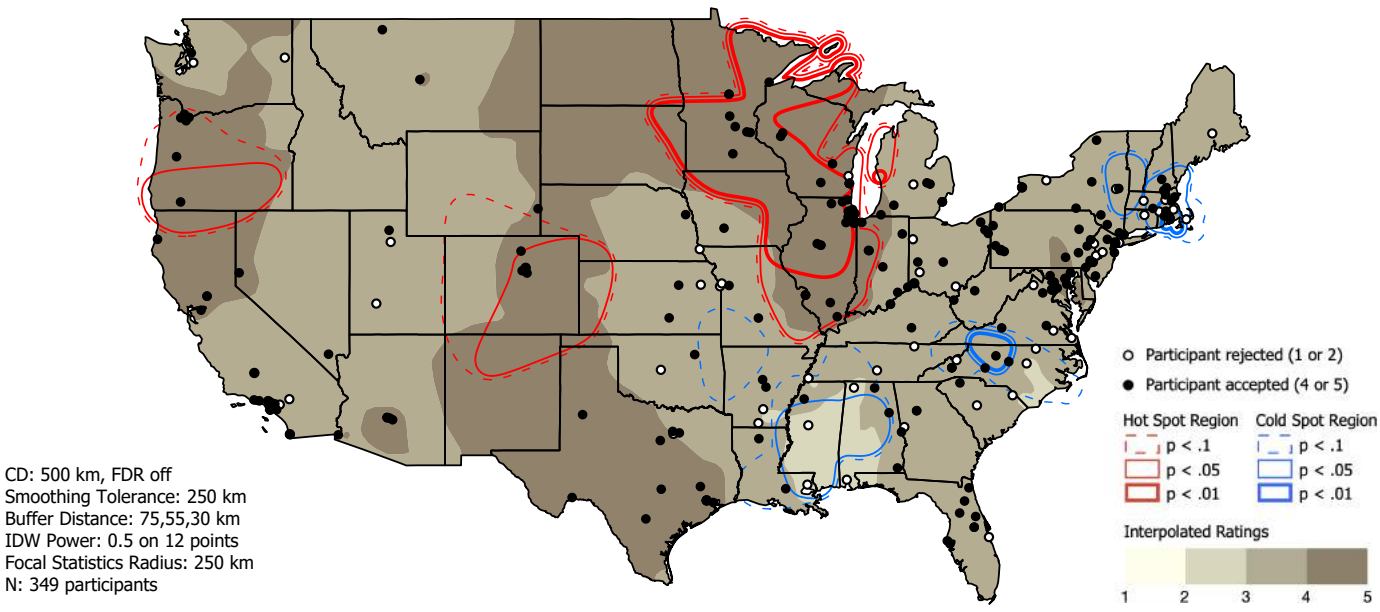
F1218: "I'll find an extra rope you can take with."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

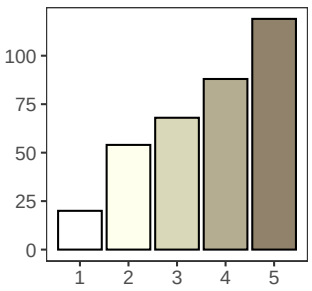
Without FDR Correction: Interpret with caution

F1218: "I'll find an extra rope you can take with."

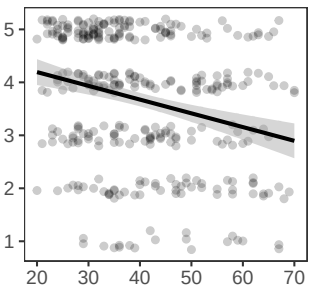


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

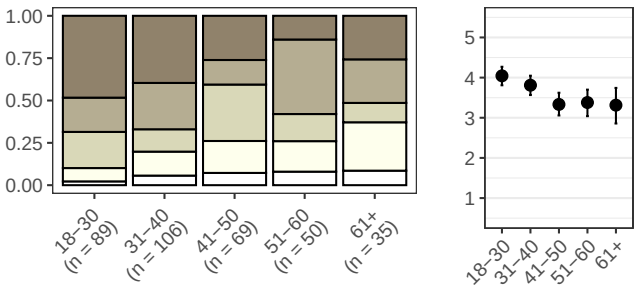
Judgments



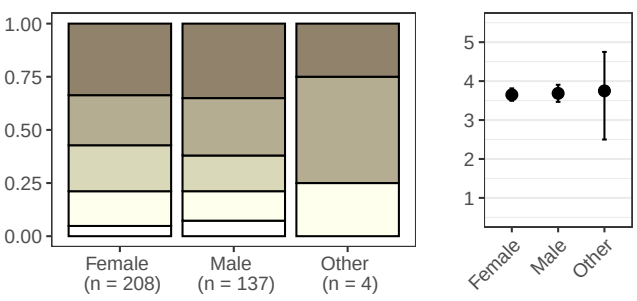
Age



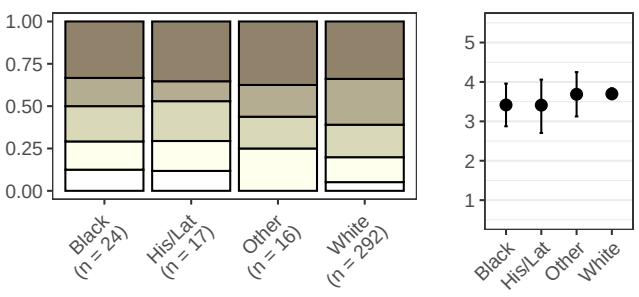
Age groups



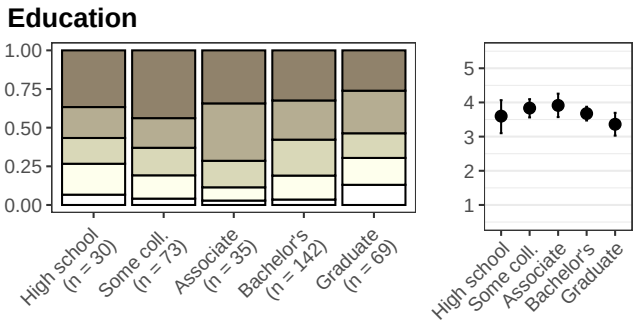
Gender



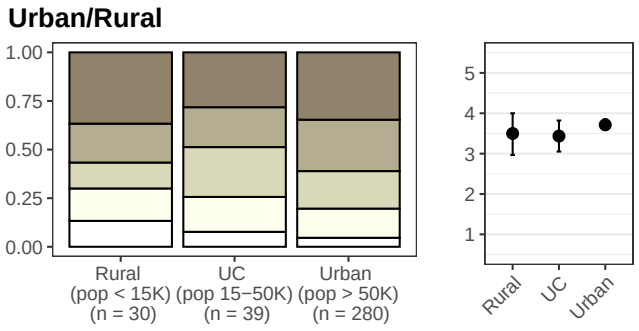
Race



Education

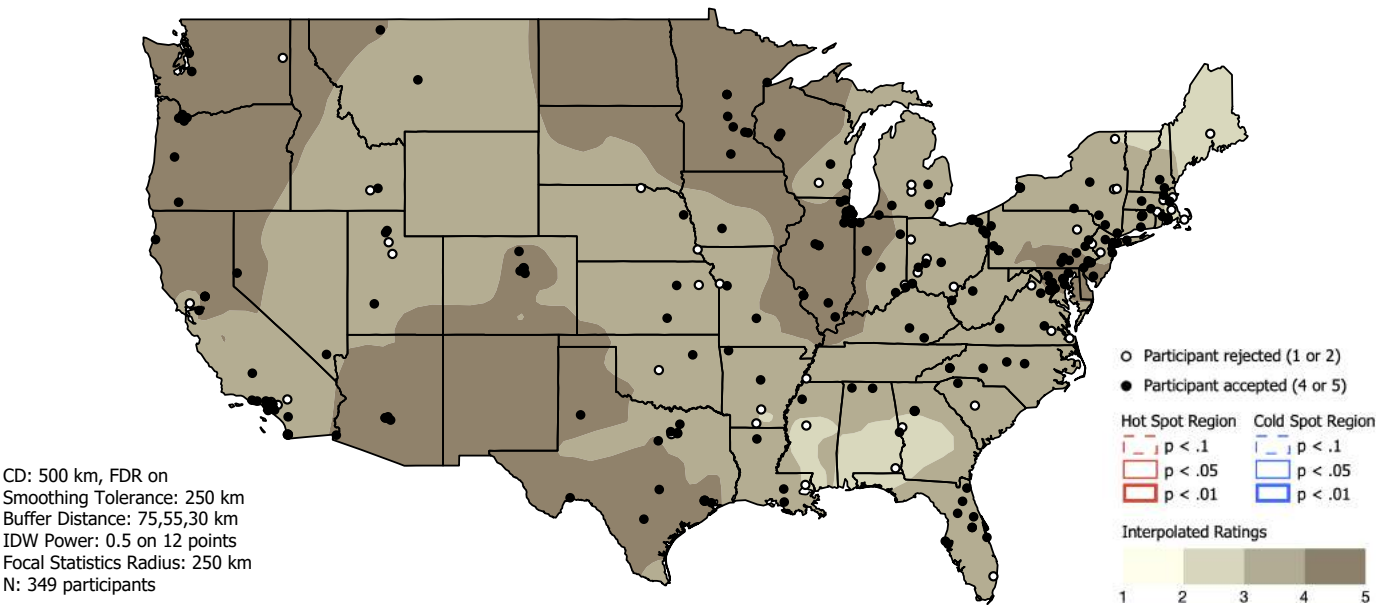


Urban/Rural



With FDR Correction

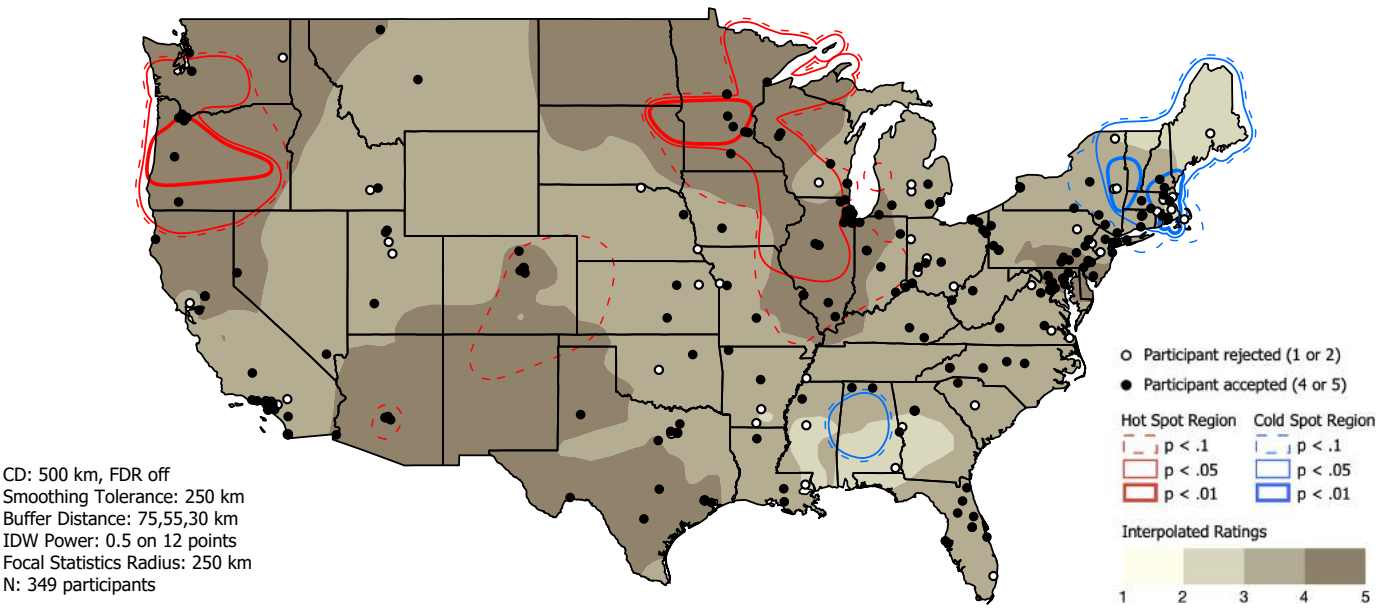
F1219: "She has about ten blankets that she wants to bring with."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

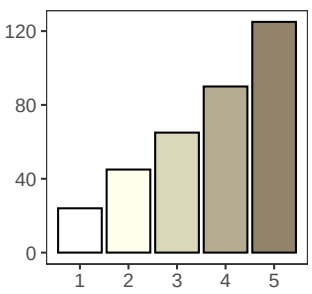
Without FDR Correction: Interpret with caution

F1219: "She has about ten blankets that she wants to bring with."

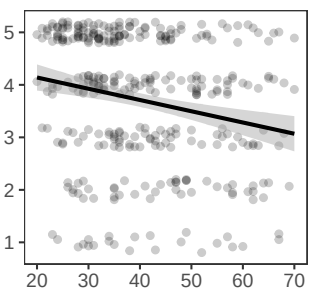


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

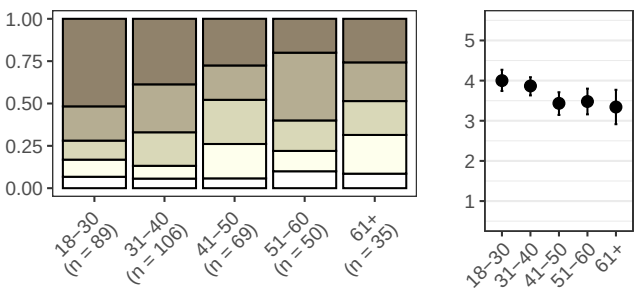
Judgments



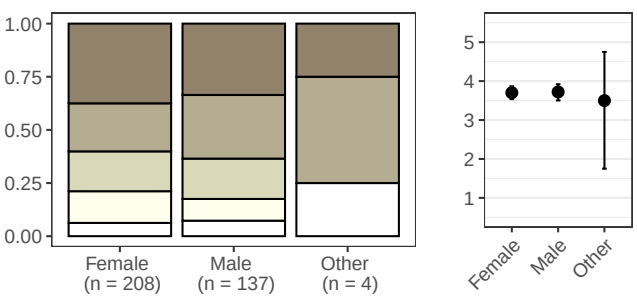
Age



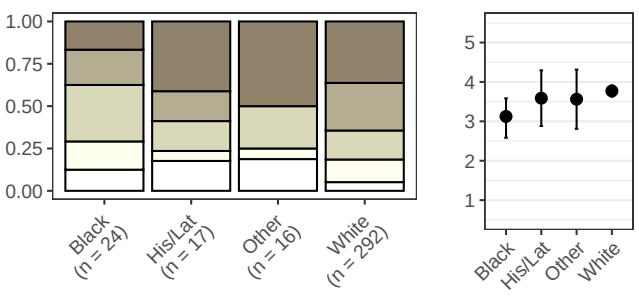
Age groups



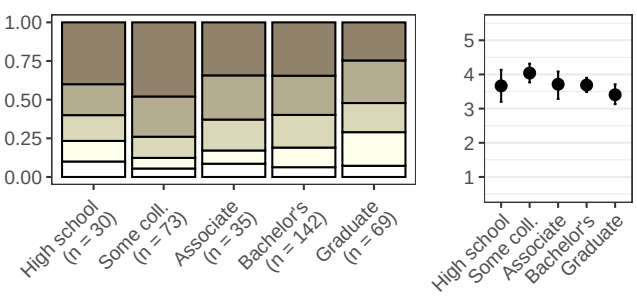
Gender



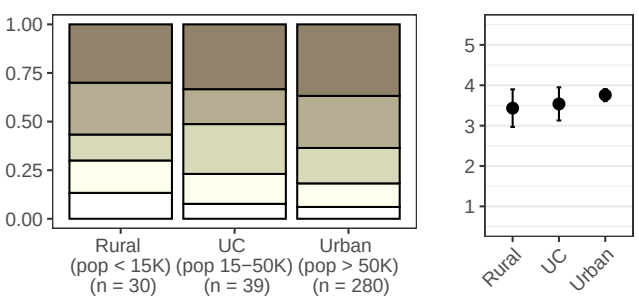
Race



Education

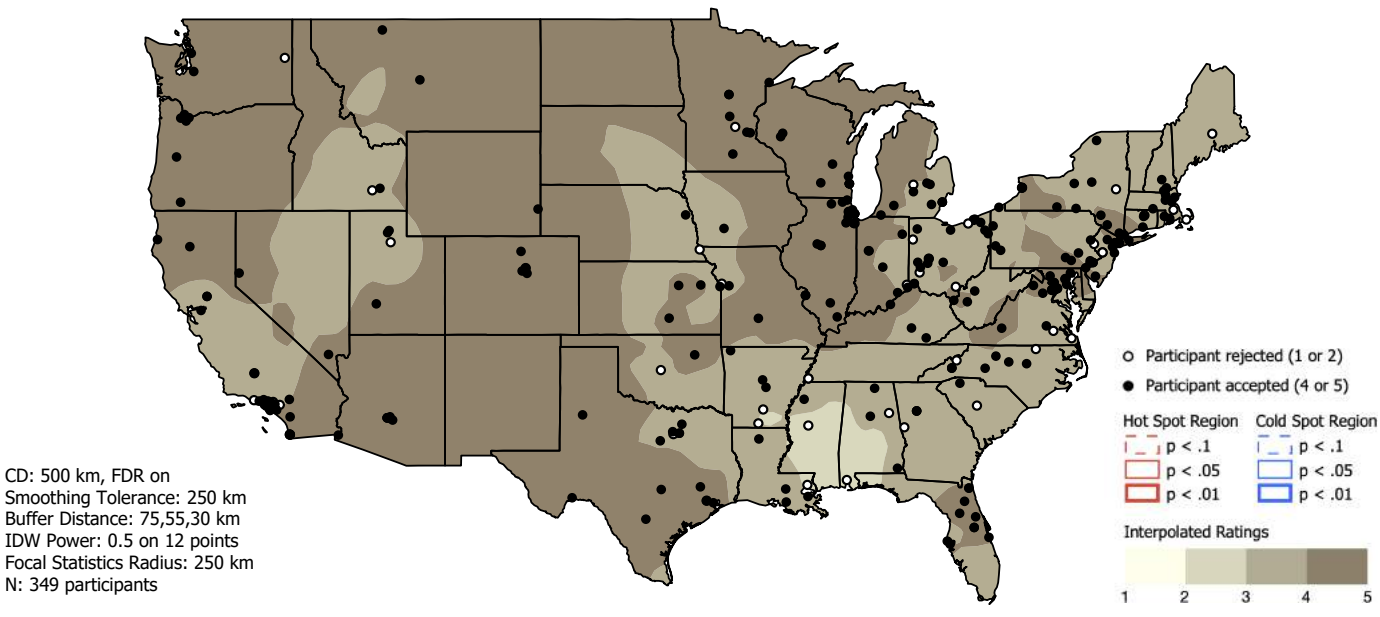


Urban/Rural



With FDR Correction

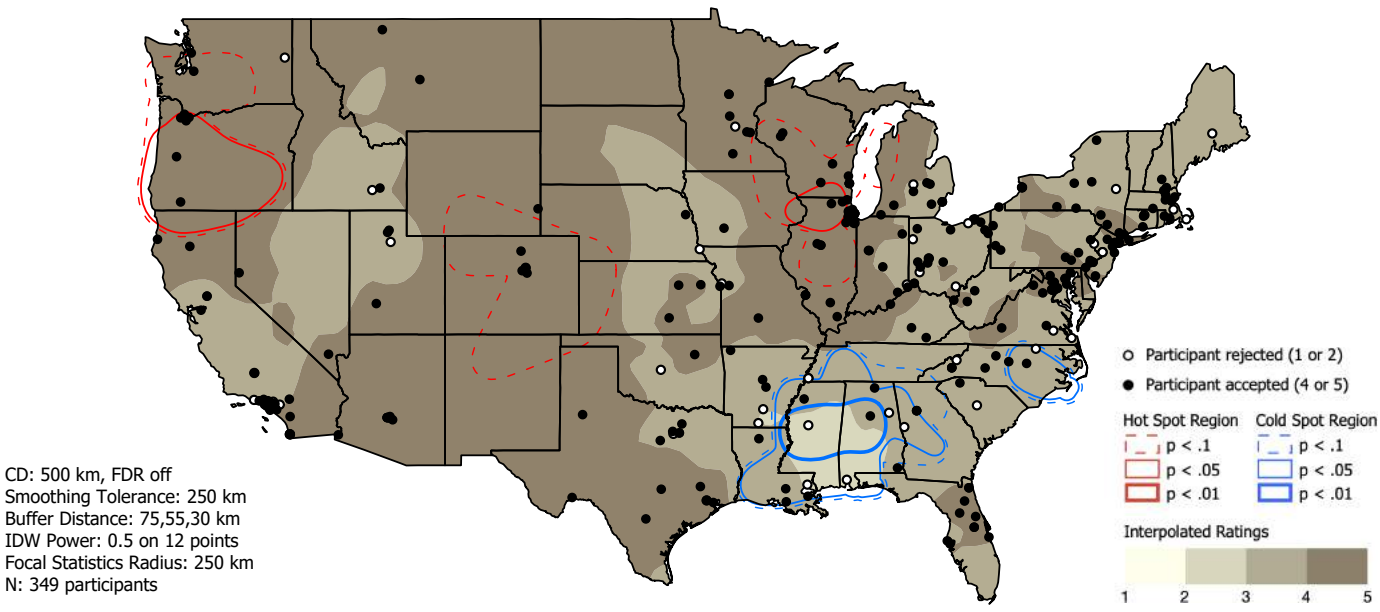
F1220: "His sisters were going, so he asked if he could go with."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

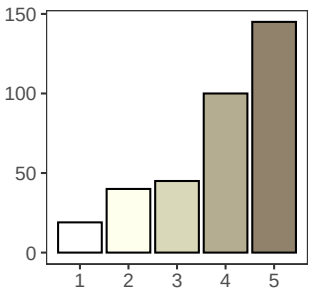
Without FDR Correction: Interpret with caution

F1220: "His sisters were going, so he asked if he could go with."

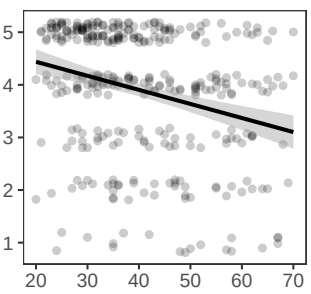


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

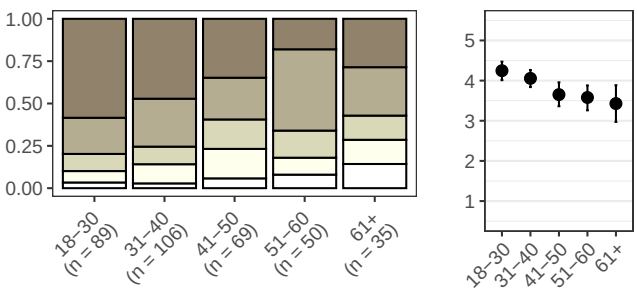
Judgments



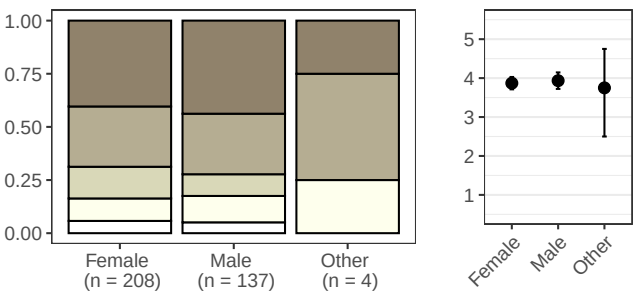
Age



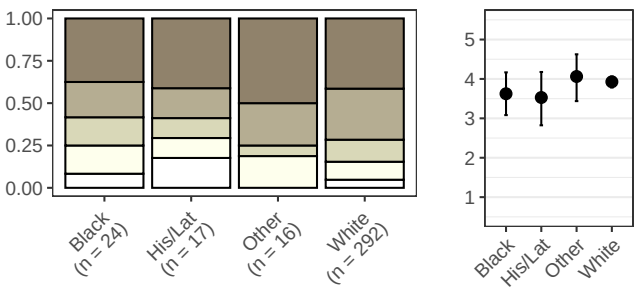
Age groups



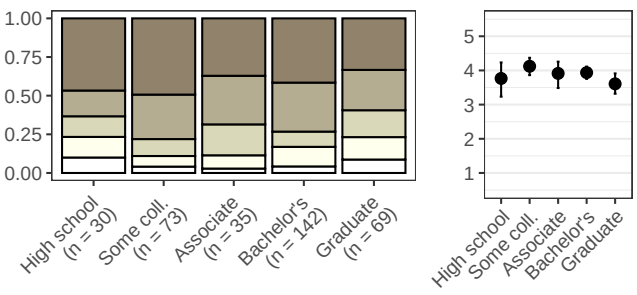
Gender



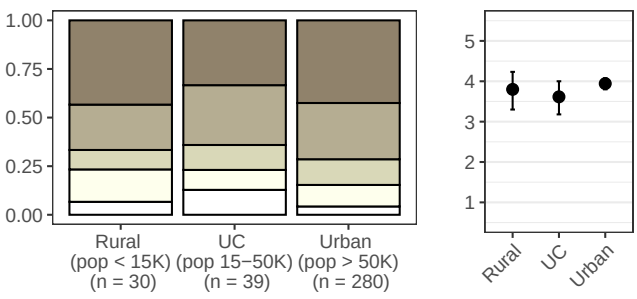
Race



Education



Urban/Rural



5.4 Fixin' to

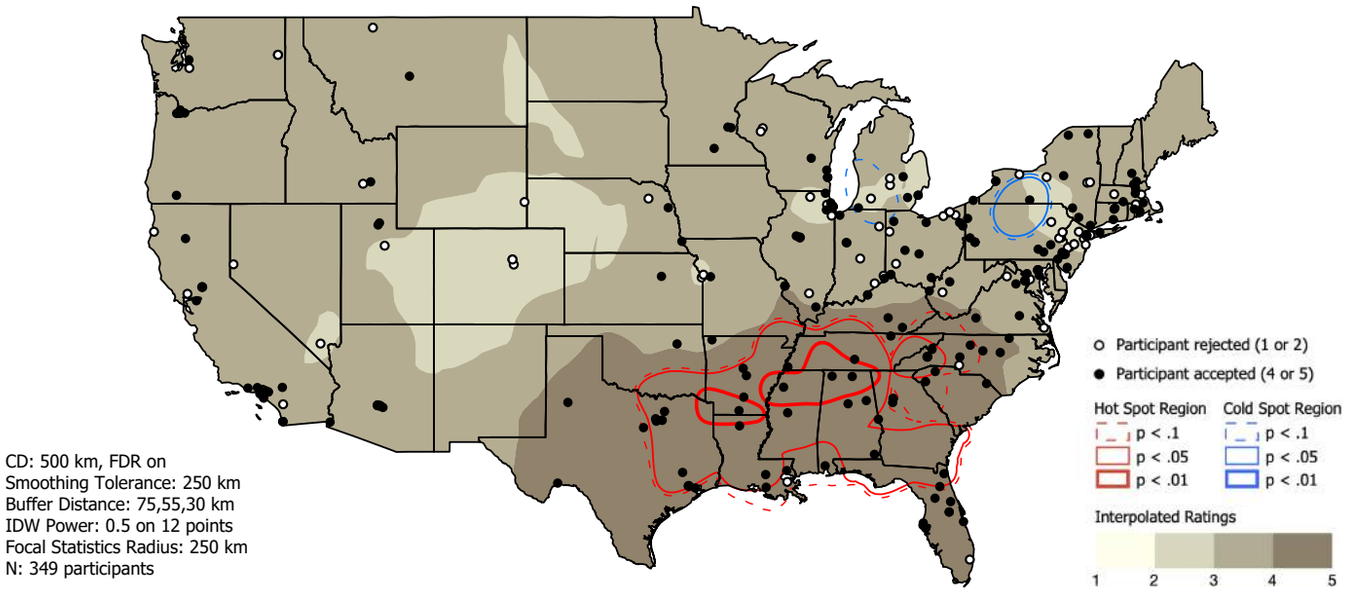
We included the *fixin' to* sentences in (19) in Survey 11.

(19)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1206	She's fixin' to mow the lawn.	349	3.55	1.31	11
F1207	This car's fixin' to be restored.	349	3.36	1.30	11
F1208	The boss is fixin' to buy a bunch of new desks this year.	349	3.61	1.26	11
F1209	I'm fixin' to get these floors redone.	349	3.60	1.28	11
F1210	My brother's fixin' to bring his family for a visit.	349	3.55	1.28	11

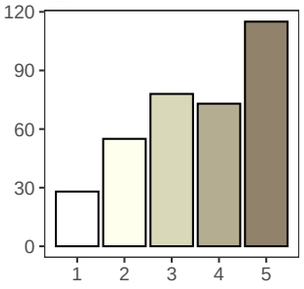
The maps of these sentences presented below show a consistent pattern with hot spot regions in the South. In addition, very strong Hot Spots show up when we measure the Min score of these sentences for each participant, but other measures (like the Mean) are significant as well. (These maps are not, however, presented here.)

F1206: "She's fixin' to mow the lawn."

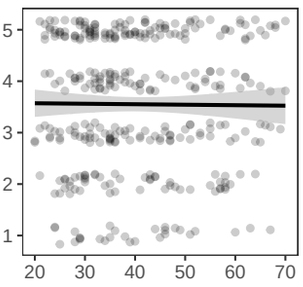


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

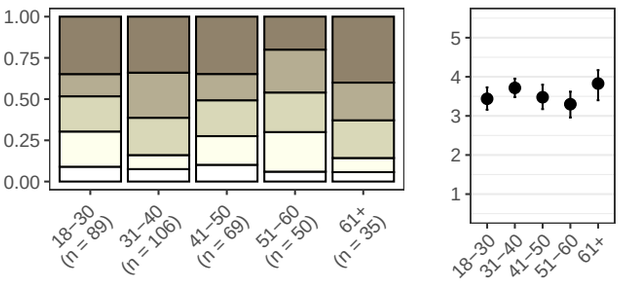
Judgments



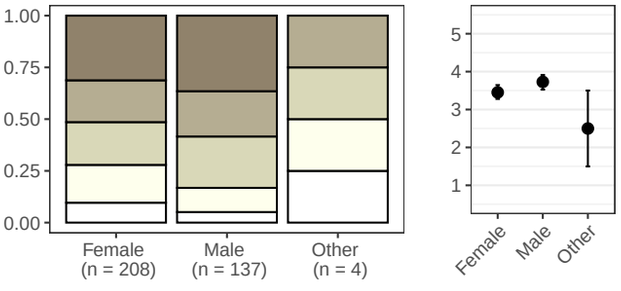
Age



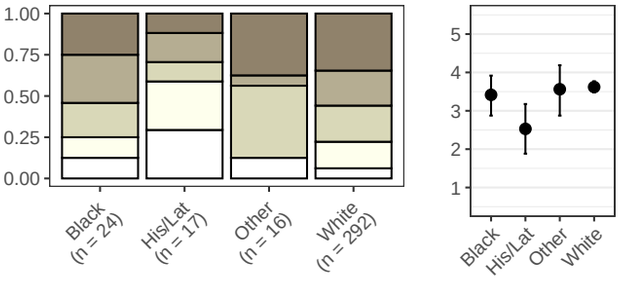
Age groups



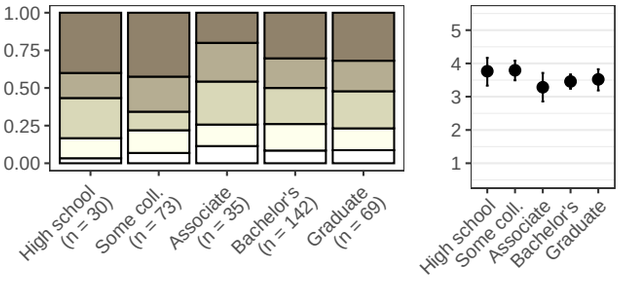
Gender



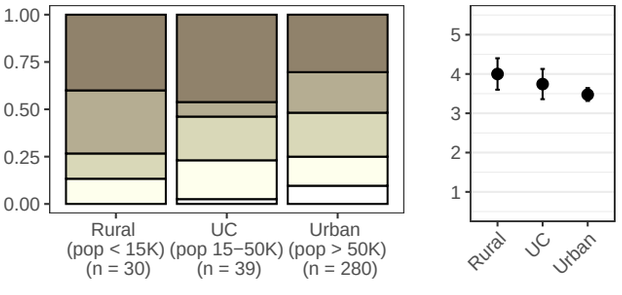
Race



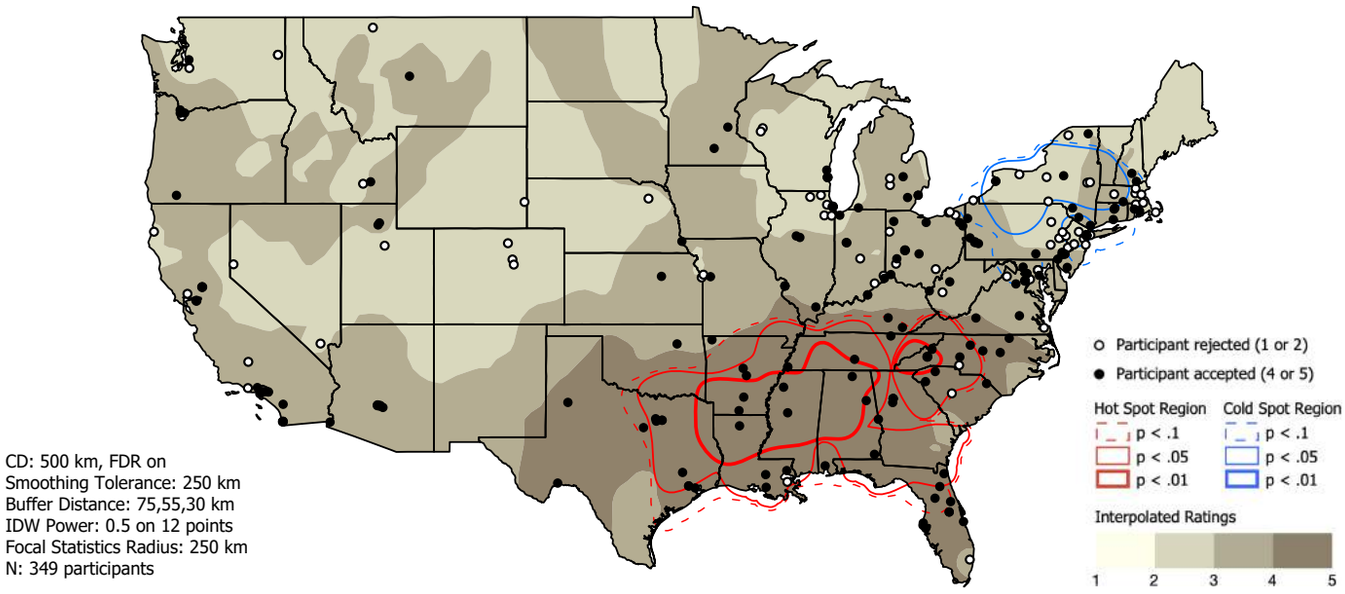
Education



Urban/Rural

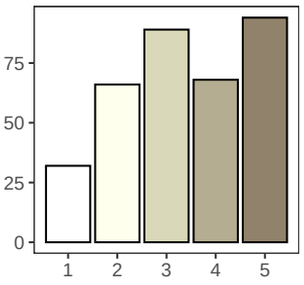


F1207: "This car's fixin' to be restored."

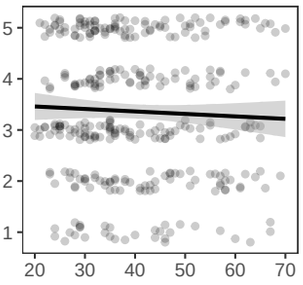


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

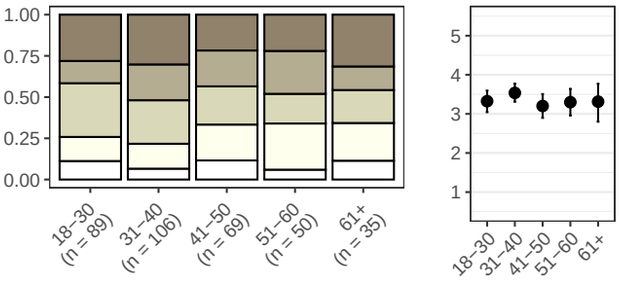
Judgments



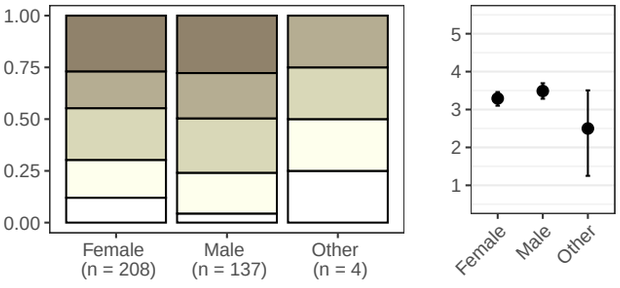
Age



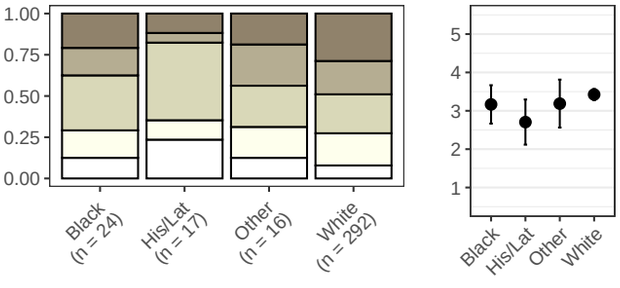
Age groups



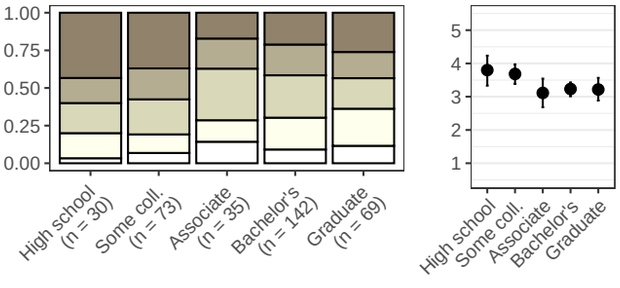
Gender



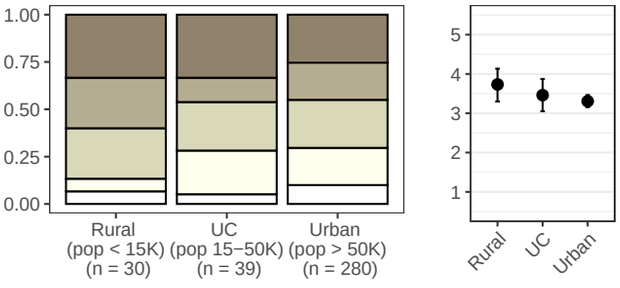
Race



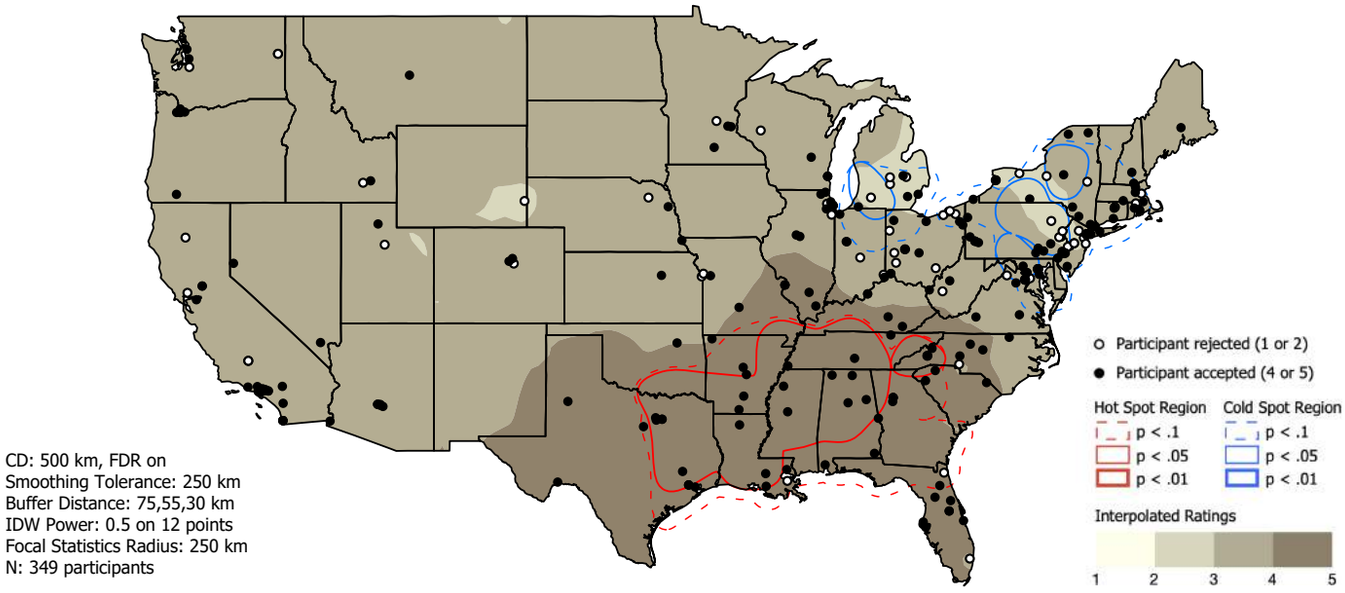
Education



Urban/Rural

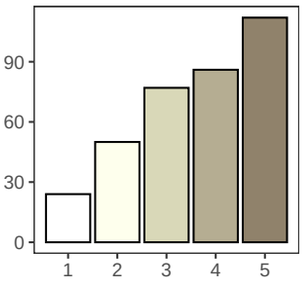


F1208: "The boss is fixin' to buy a bunch of new desks this year."

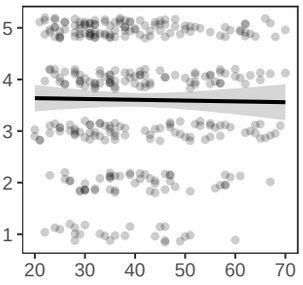


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

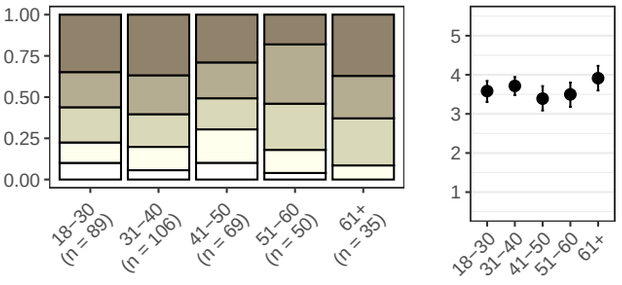
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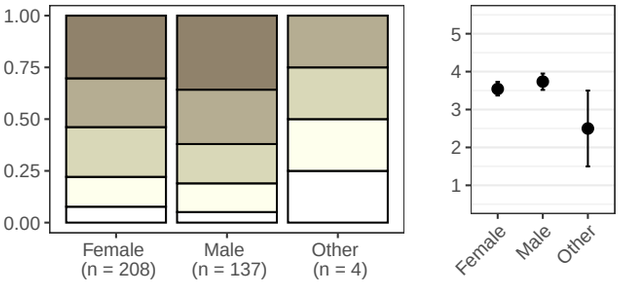
Age



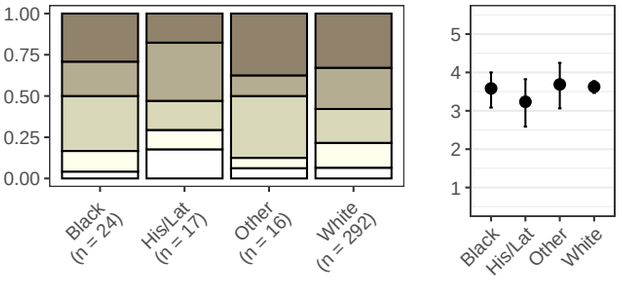
Age groups



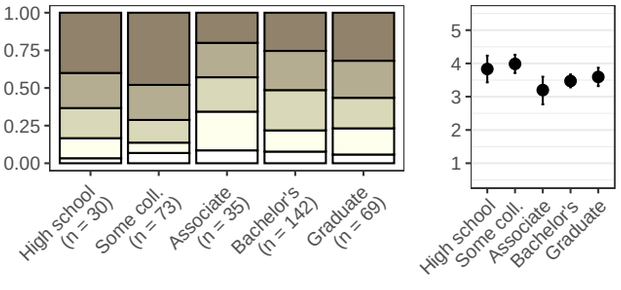
Gender



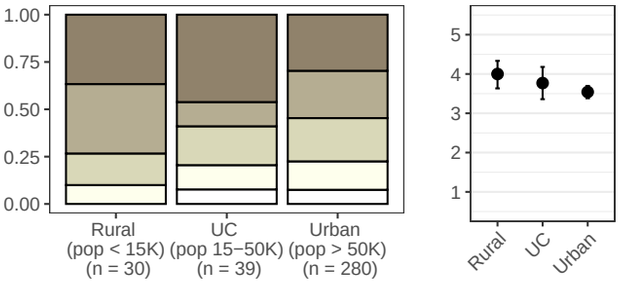
Race



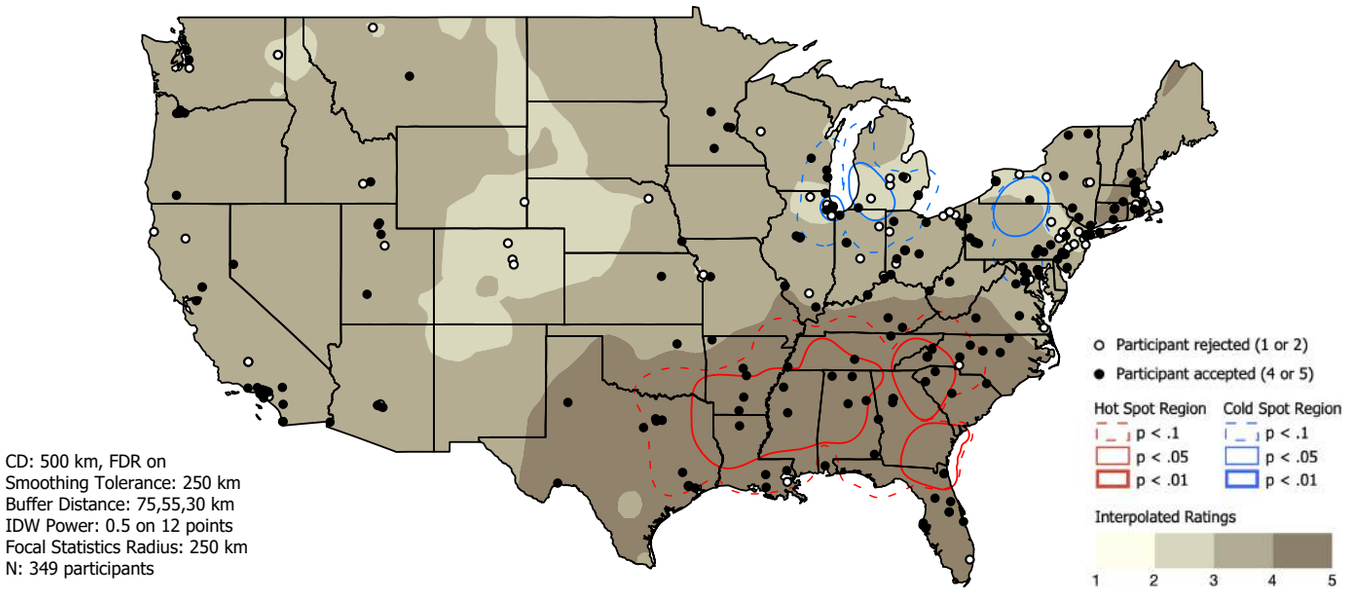
Education



Urban/Rural

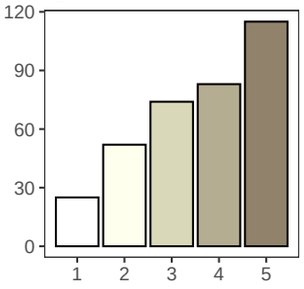


F1209: "I'm fixin' to get these floors redone."

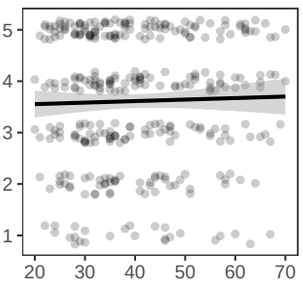


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

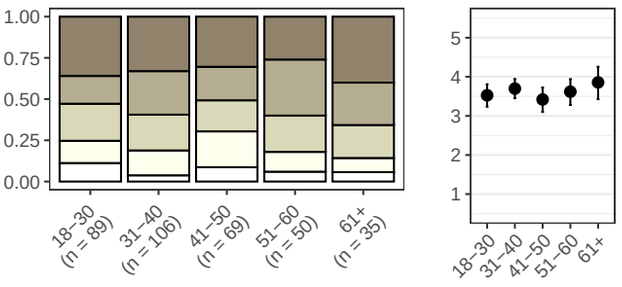
Judgments



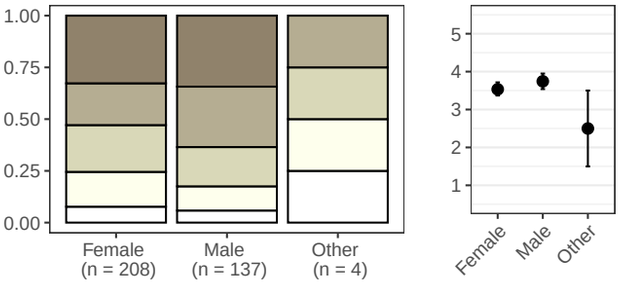
Age



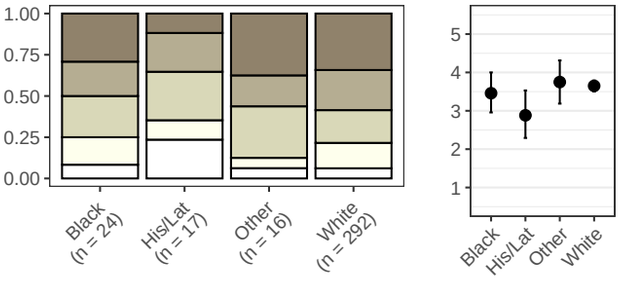
Age groups



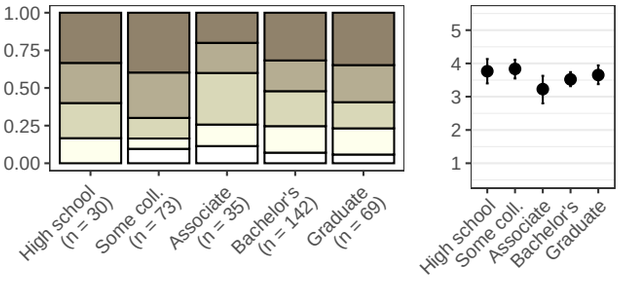
Gender



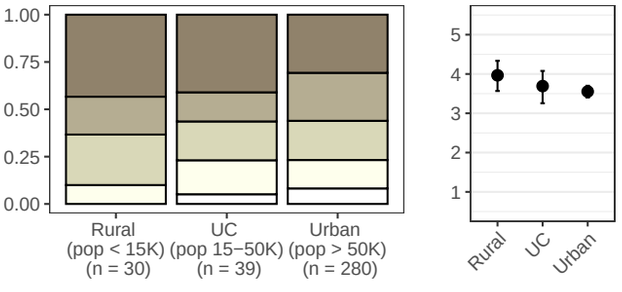
Race



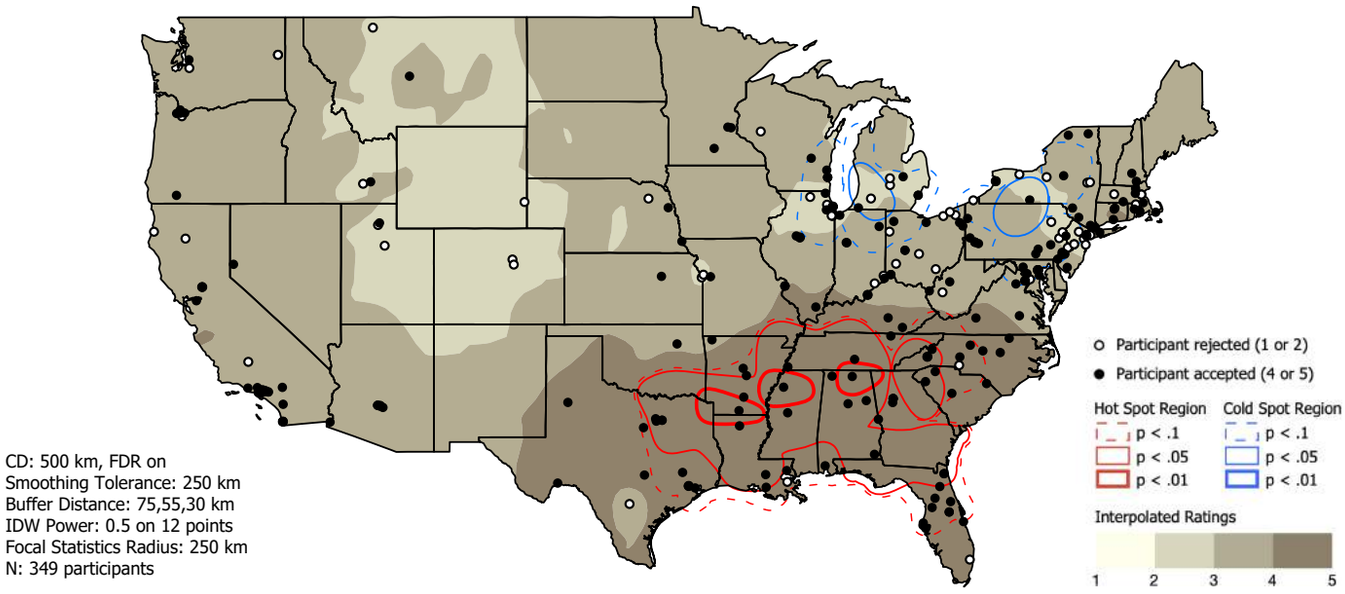
Education



Urban/Rural

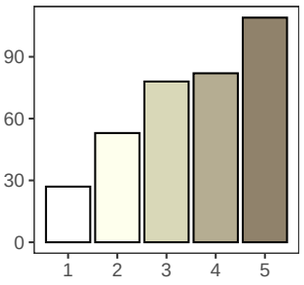


F1210: "My brother's fixin' to bring his family for a visit."

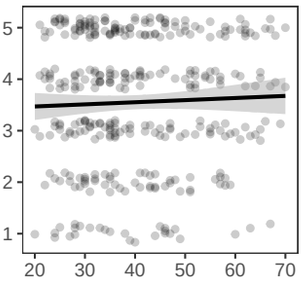


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

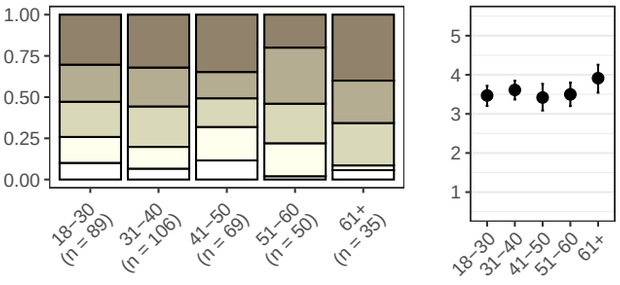
Judgments



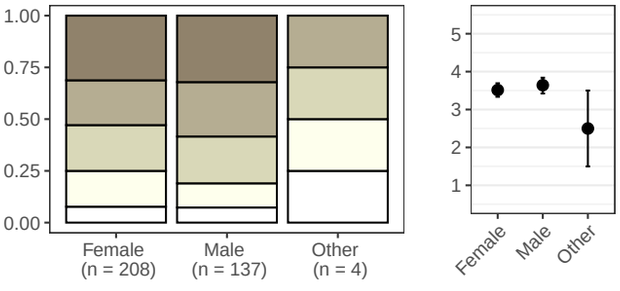
Age



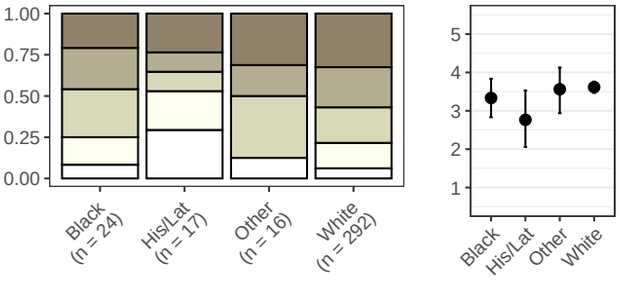
Age groups



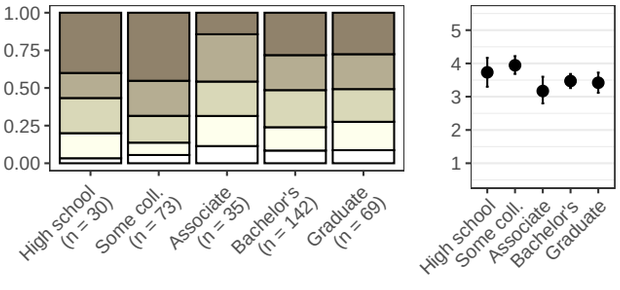
Gender



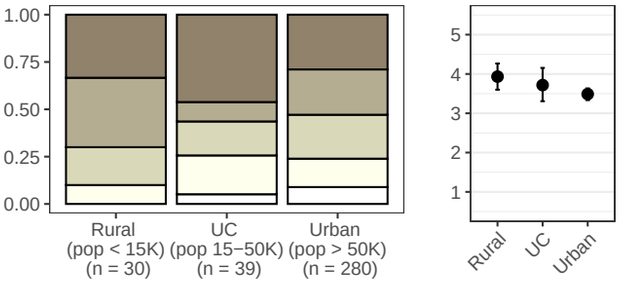
Race



Education



Urban/Rural



5.5 *For to* infinitives

We included five of the *for-to* sentences in (20) in Survey 11, and also two sentences in Survey 9.

(20)

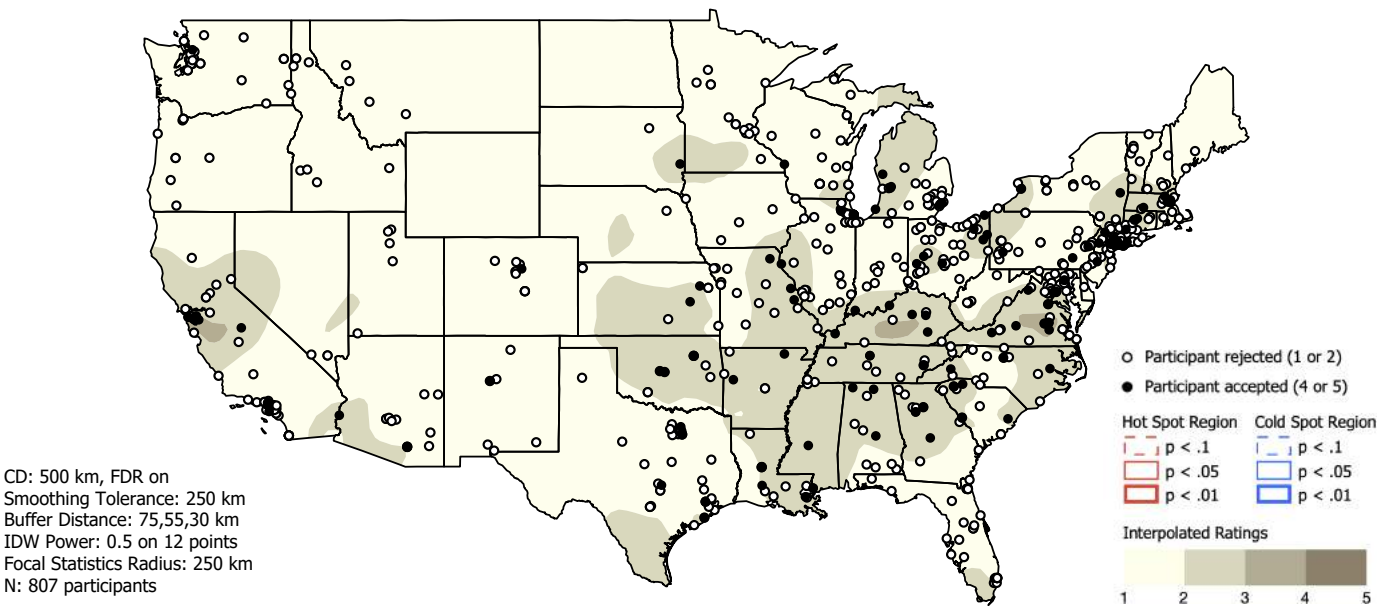
Sentence	Sentence text	Responses	Mean	SD	Survey
F1163	He turned off his phone for to avoid his girlfriend.	807	1.98	1.29	9
F1164	Jessie wants for to quit.	807	1.33	0.71	9
F1221	You need water for to keep hydrated.	349	2.11	1.12	11
F1222	I read that book for to learn more about history.	349	1.81	1.02	11
F1223	I went to the shop for to get some gloves.	349	2.12	1.19	11
F1224	The horses need shade in the summer for to keep cool.	349	2.50	1.26	11
F1225	I brought some wine for to show my gratitude.	349	2.12	1.14	11

The maps in below reveal that these setences are highly marked, and regional patterns are not particularly strong. 1164 was almost universally rejected.[21] However, other than 1164, we do see consistent hot spots in the non-FDR version of the map in the South, which is where we would have expected this construction to be most widespread, as well as in Southern California (which we would not have had any particular a priori reason to expect). Past experience working with 1163 has shown that these hot spots sometimes do show up with FDR, depending on parameter settings. It would be worth looking more closely at this construction to see if the regional pattern is real.

[21] It was for this reason that the sentences on Survey 11 were limited to various kinds of purpose clauses rather than complement clauses.

With FDR Correction

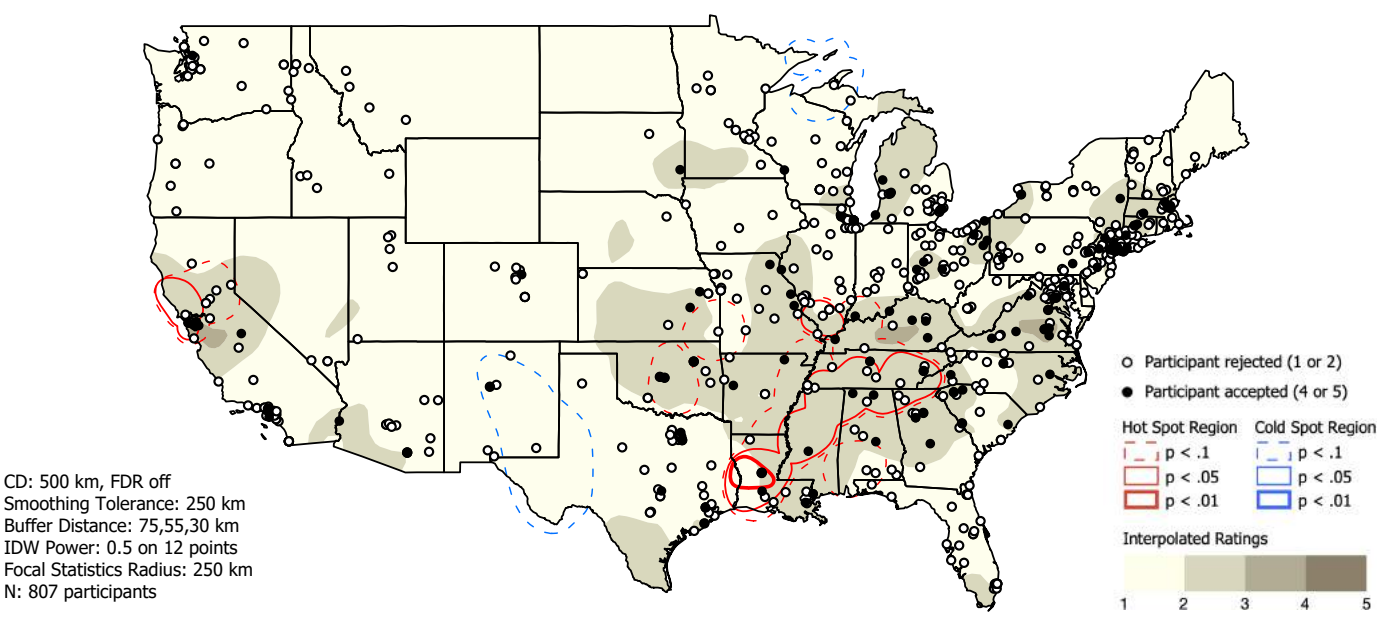
F1163: "He turned off his phone for to avoid his girlfriend."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

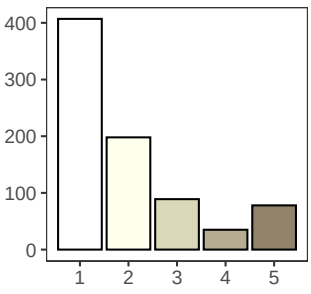
Without FDR Correction: Interpret with caution

F1163: "He turned off his phone for to avoid his girlfriend."

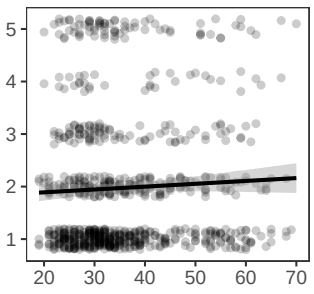


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

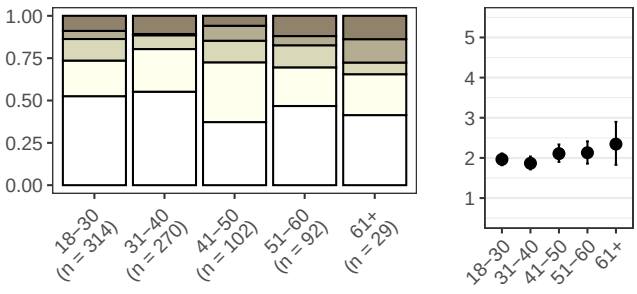
Judgments



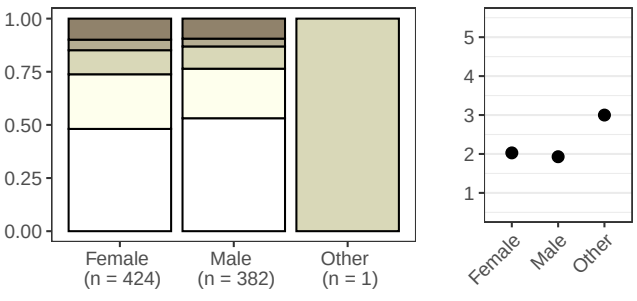
Age



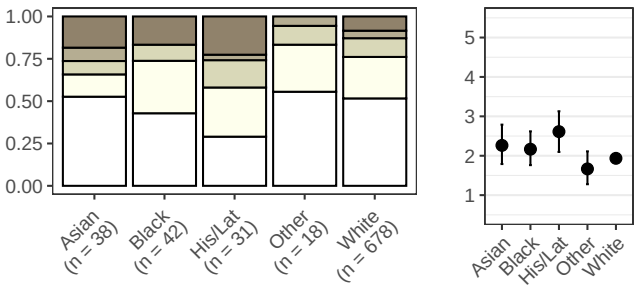
Age groups



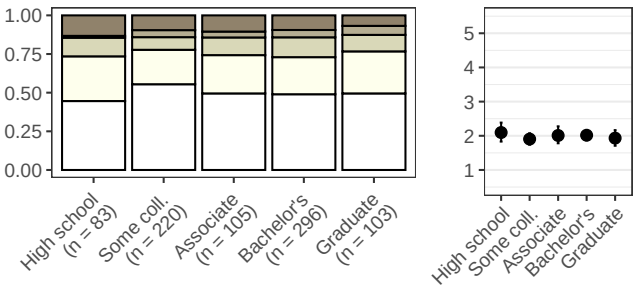
Gender



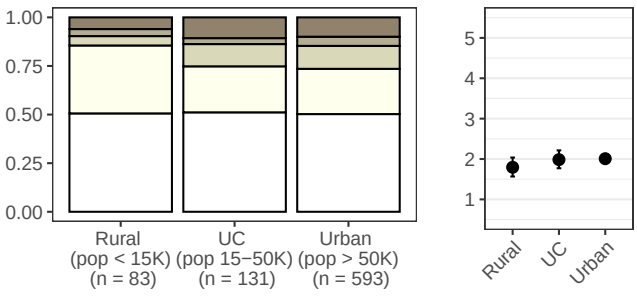
Race



Education

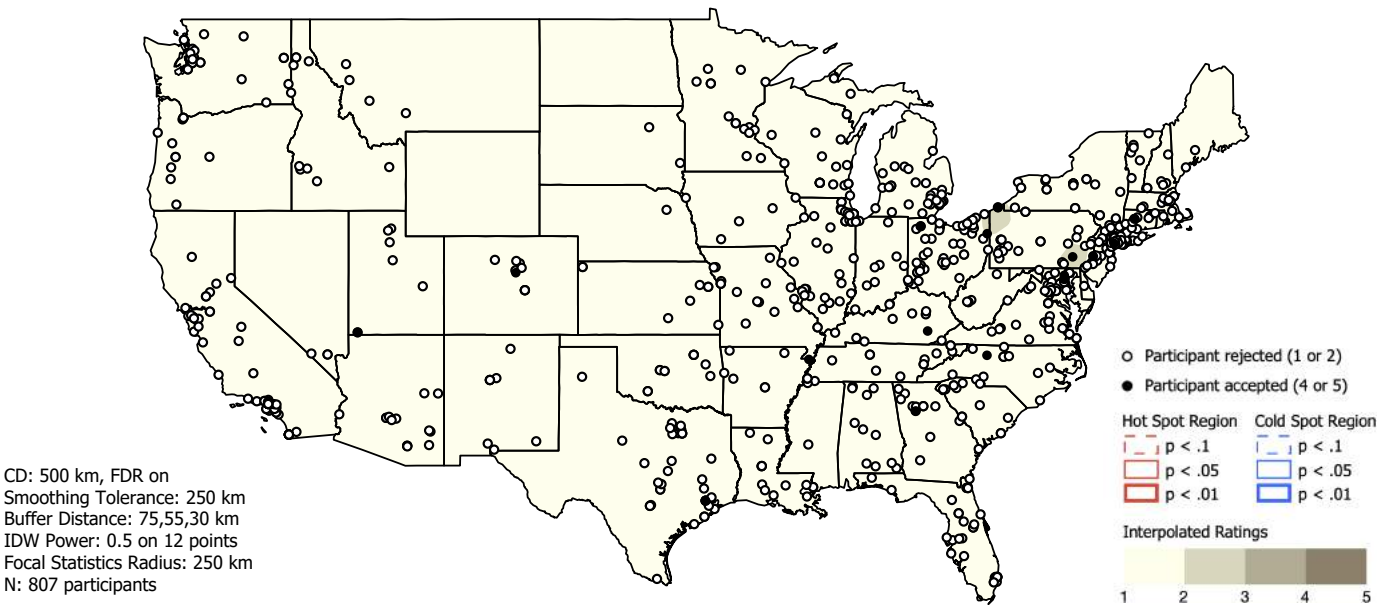


Urban/Rural



With FDR Correction

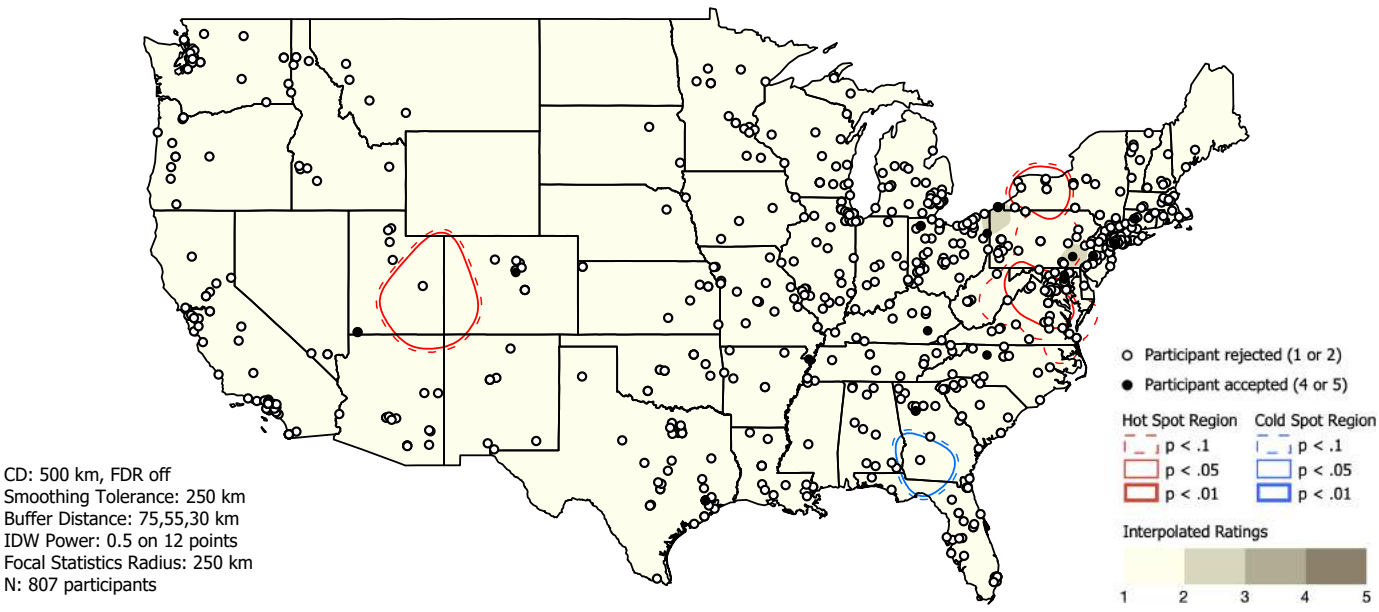
F1164: "Jessie wants for to quit."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

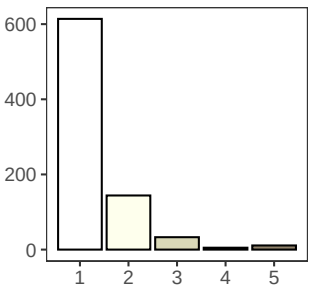
Without FDR Correction: Interpret with caution

F1164: "Jessie wants for to quit."

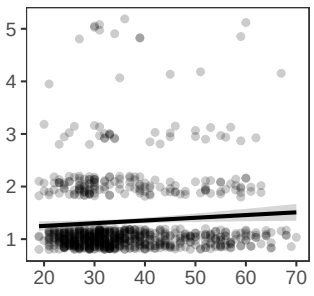


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

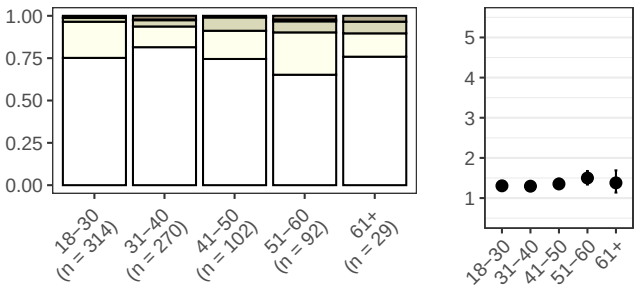
Judgments



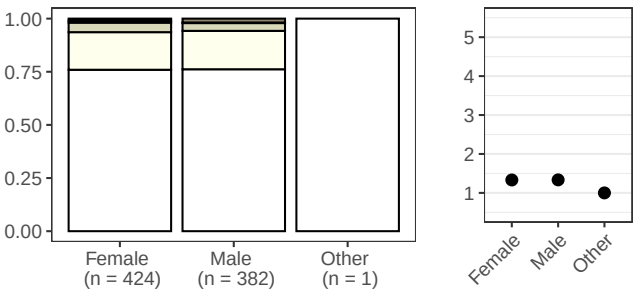
Age



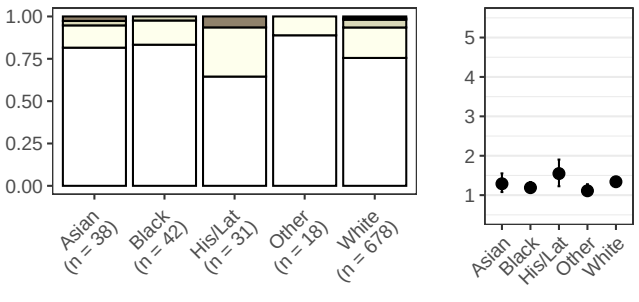
Age groups



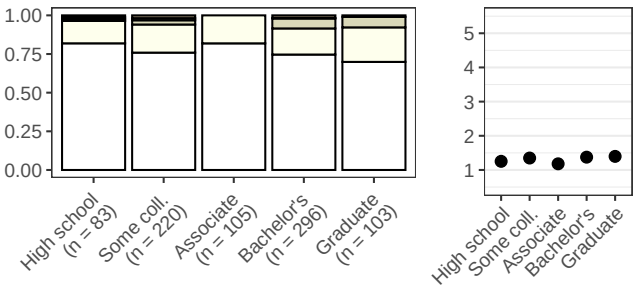
Gender



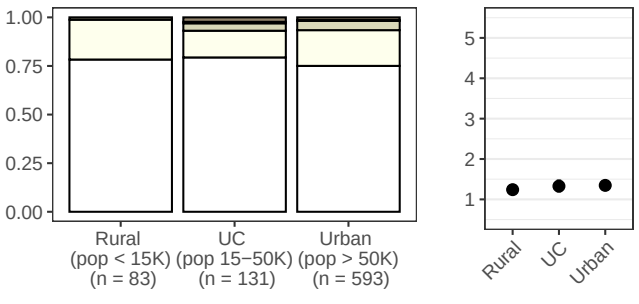
Race



Education

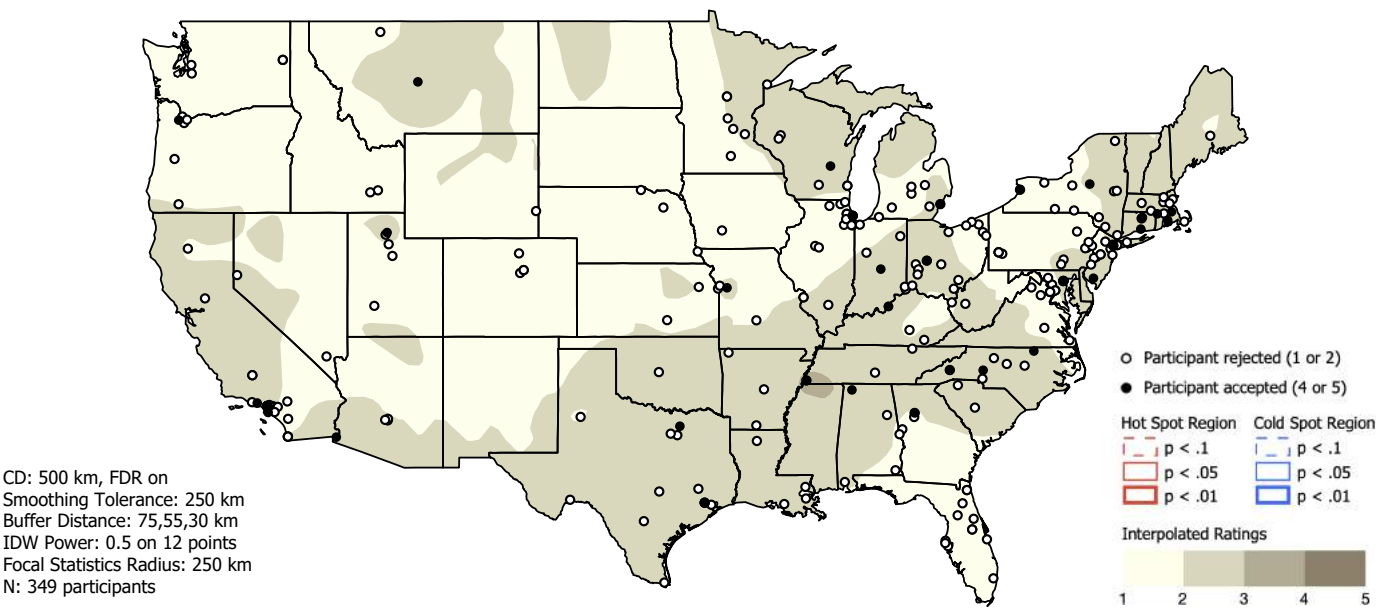


Urban/Rural



With FDR Correction

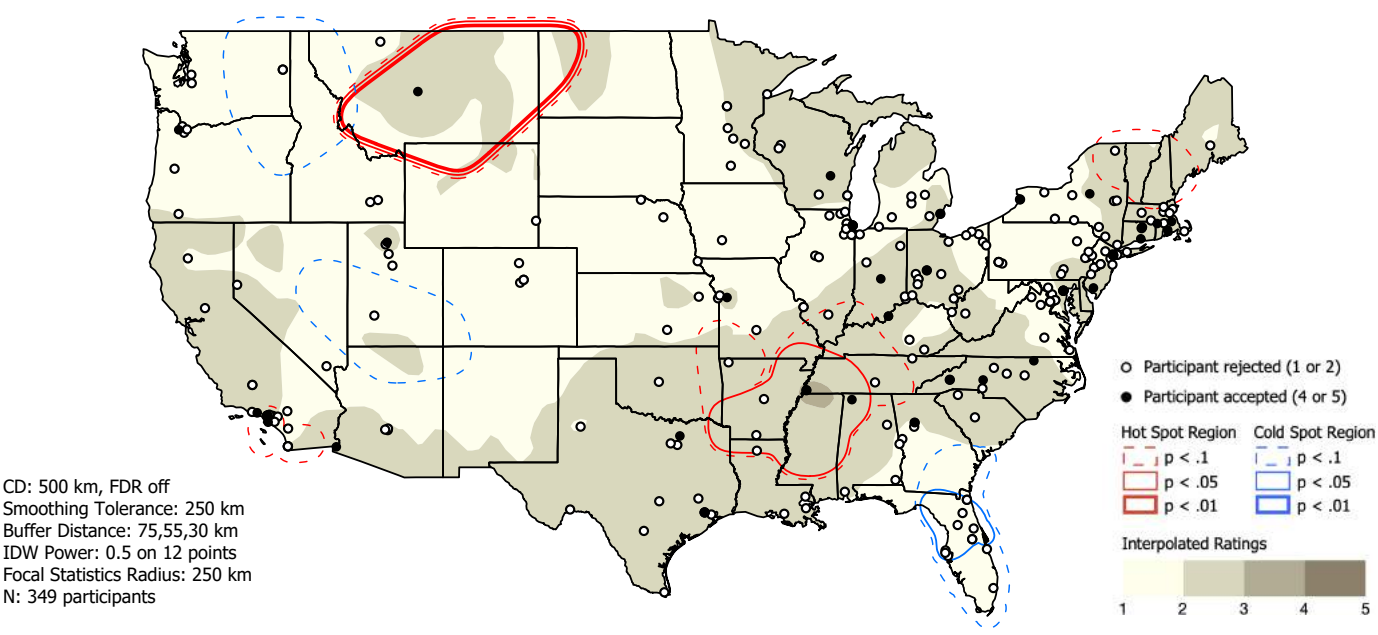
F1221: "You need water for to keep hydrated."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

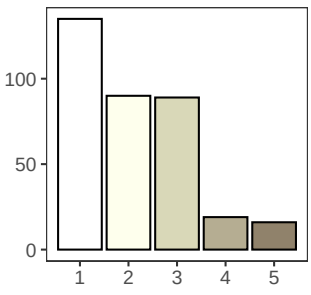
Without FDR Correction: Interpret with caution

F1221: "You need water for to keep hydrated."

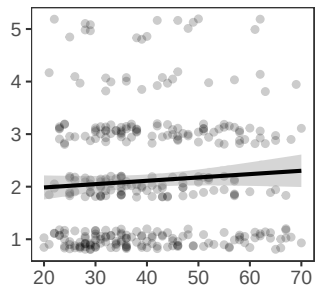


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

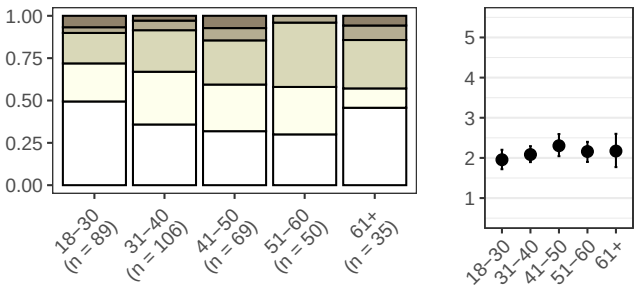
Judgments



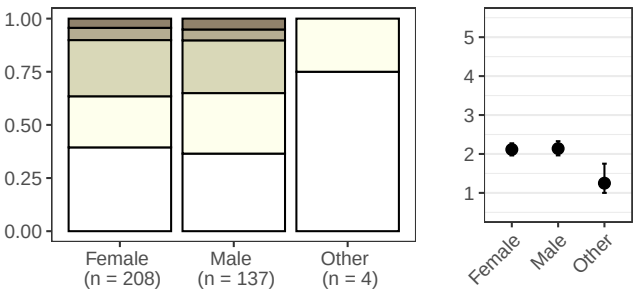
Age



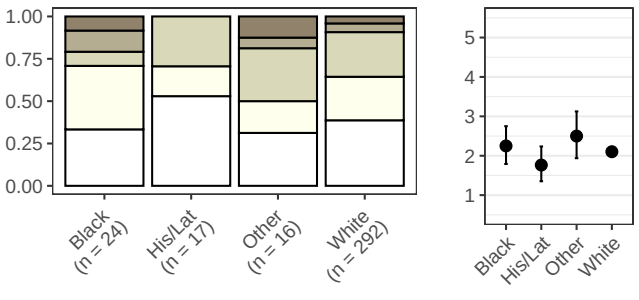
Age groups



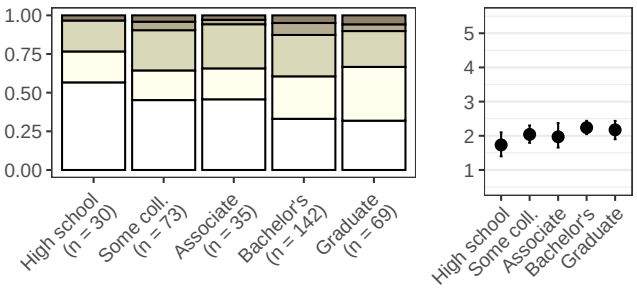
Gender



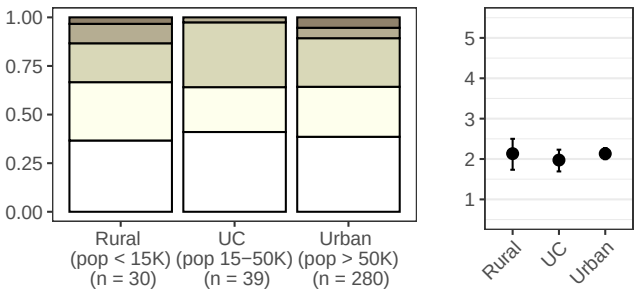
Race



Education

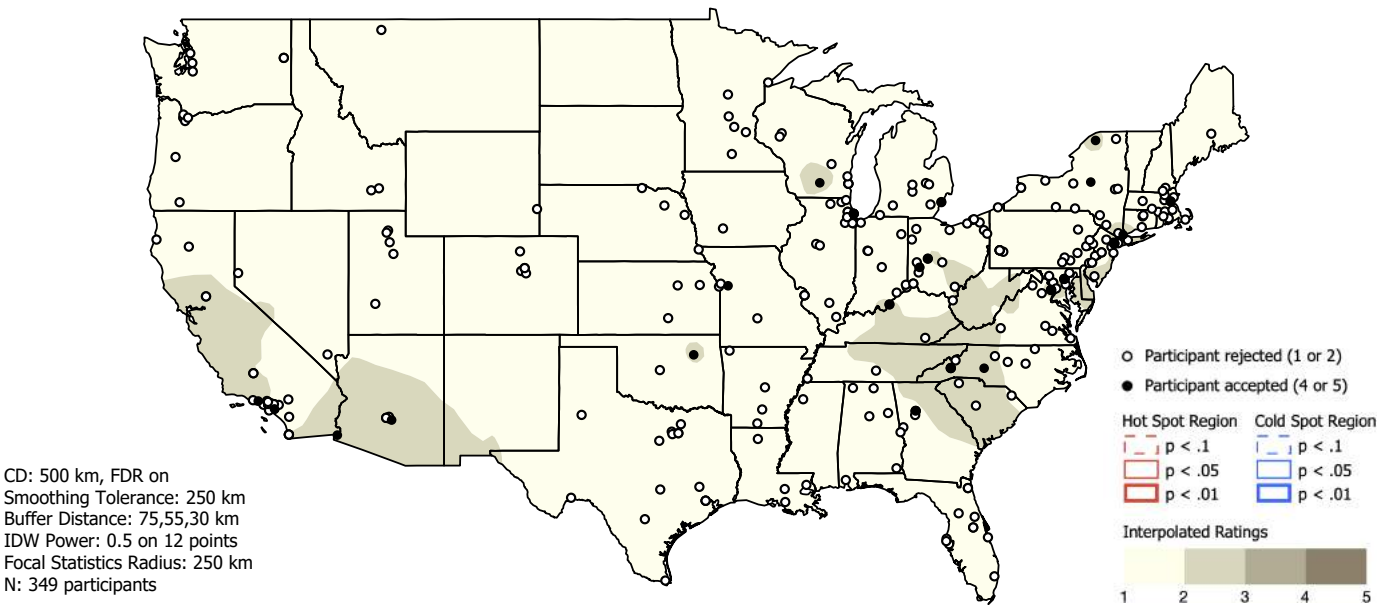


Urban/Rural



With FDR Correction

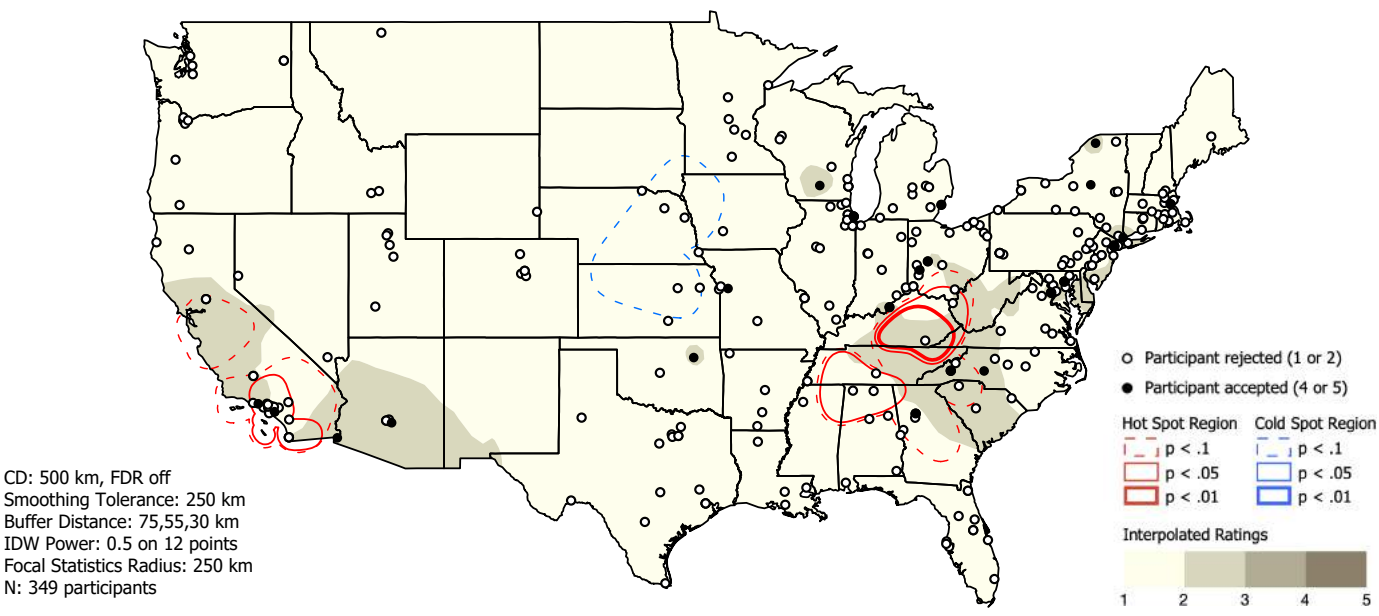
F1222: "I read that book for to learn more about history."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

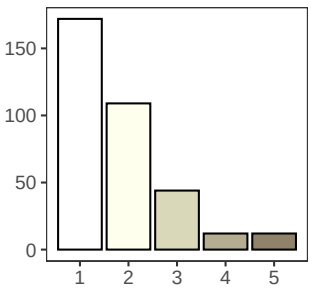
Without FDR Correction: Interpret with caution

F1222: "I read that book for to learn more about history."

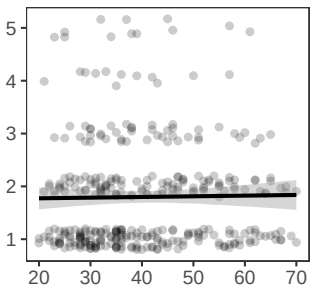


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

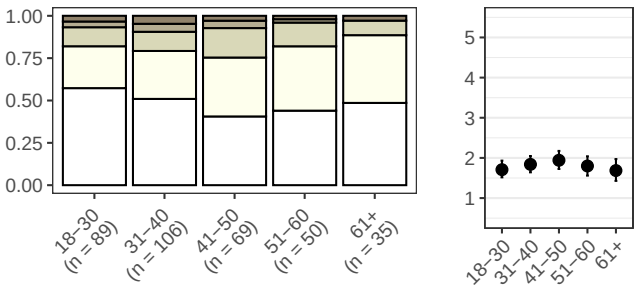
Judgments



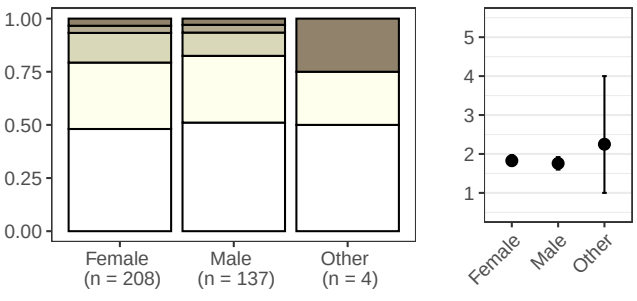
Age



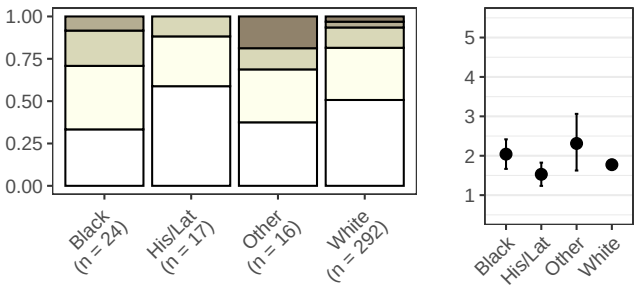
Age groups



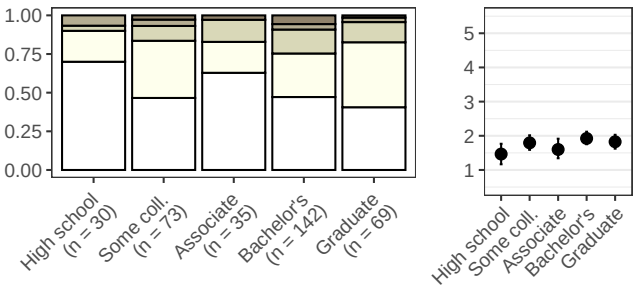
Gender



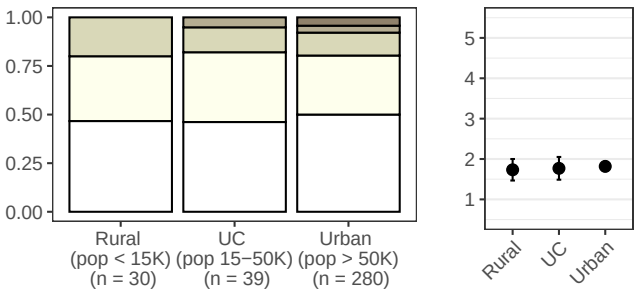
Race



Education

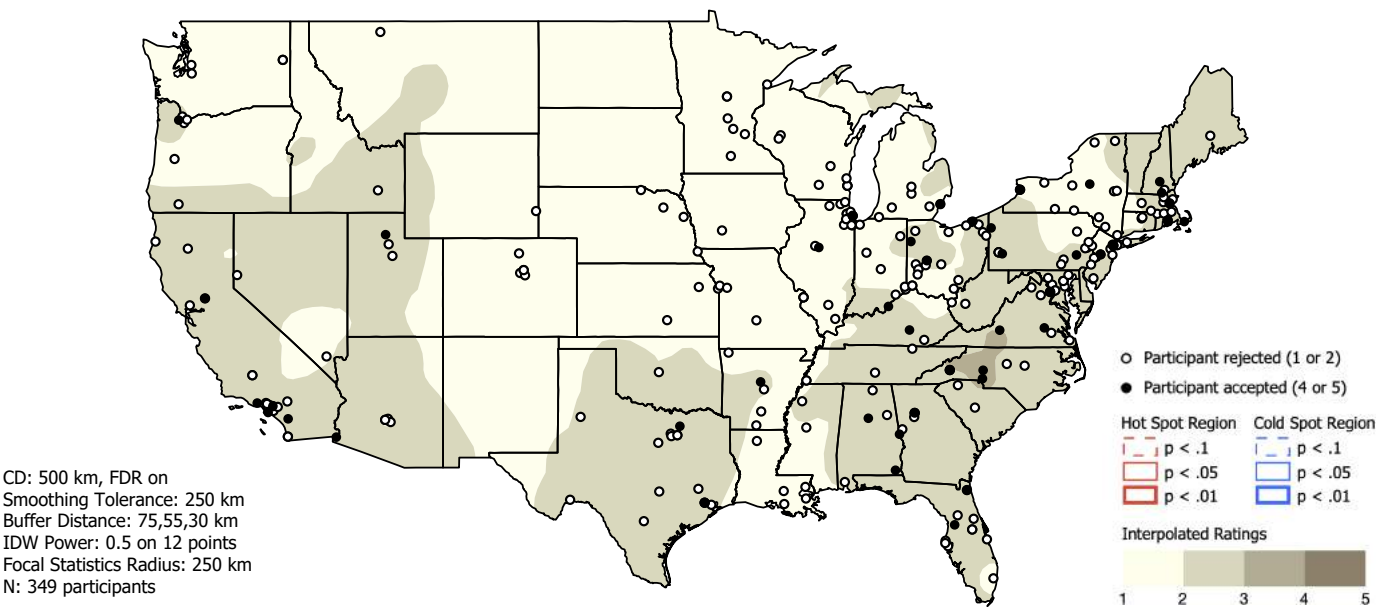


Urban/Rural



With FDR Correction

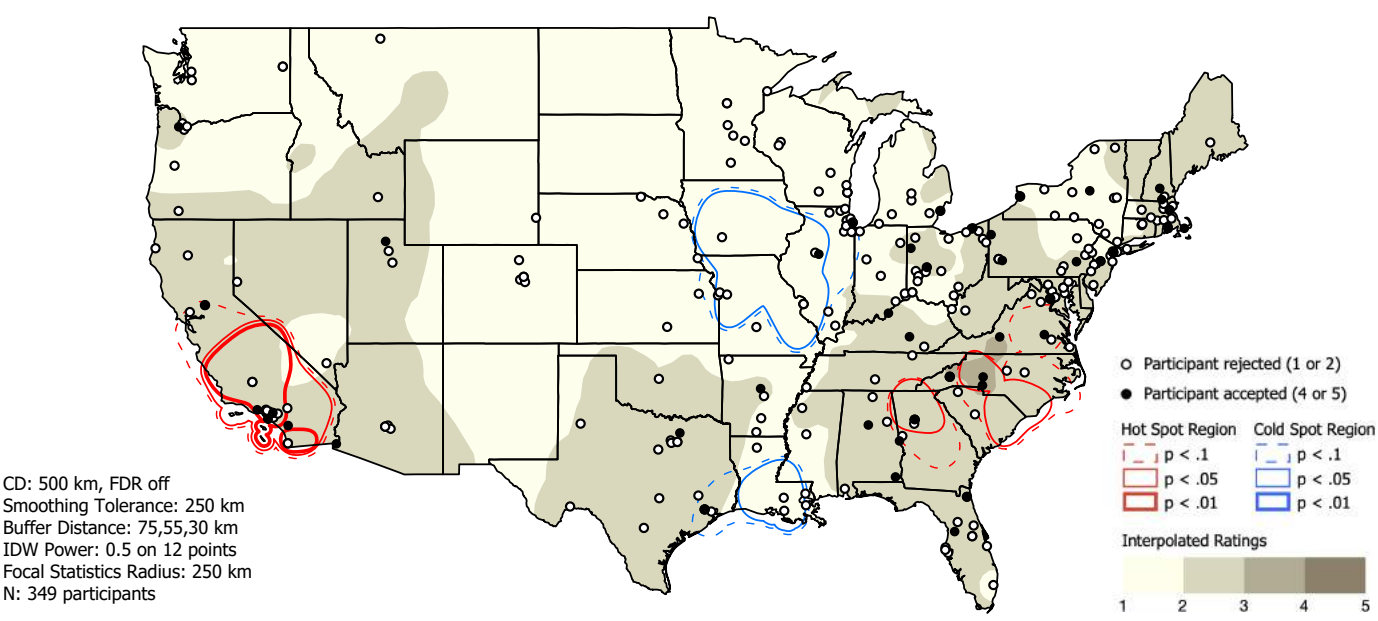
F1223: "I went to the shop for to get some gloves."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

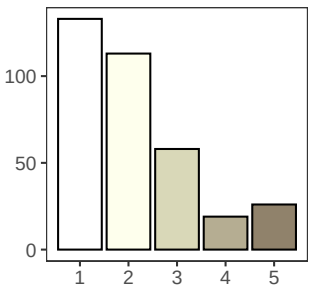
Without FDR Correction: Interpret with caution

F1223: "I went to the shop for to get some gloves."

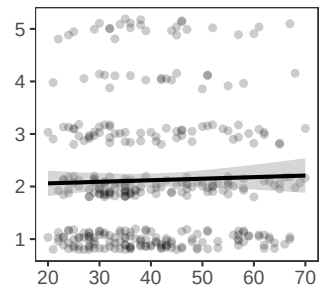


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

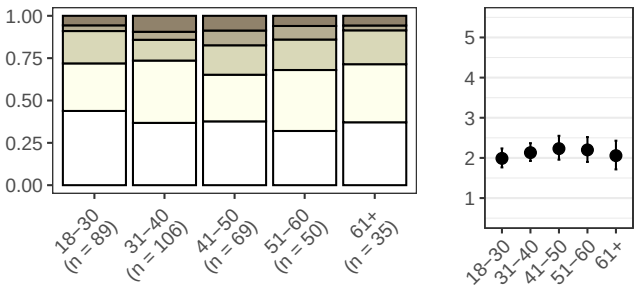
Judgments



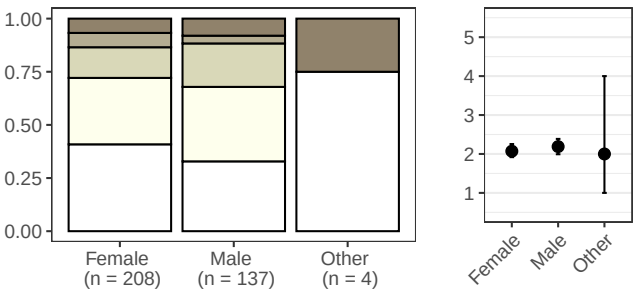
Age



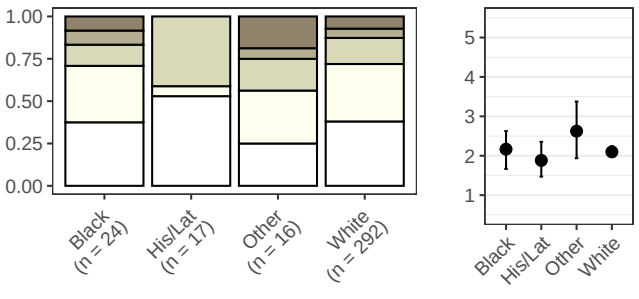
Age groups



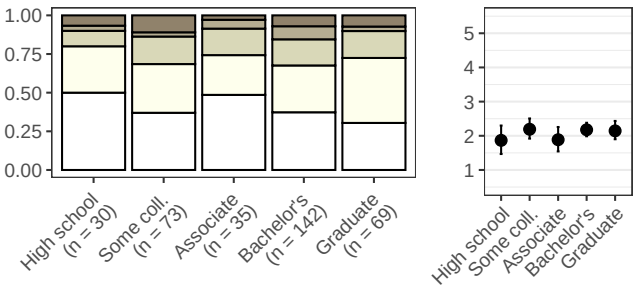
Gender



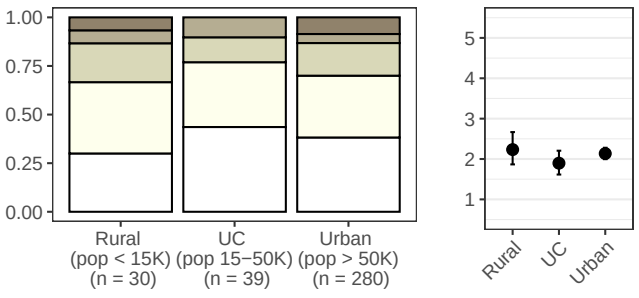
Race



Education

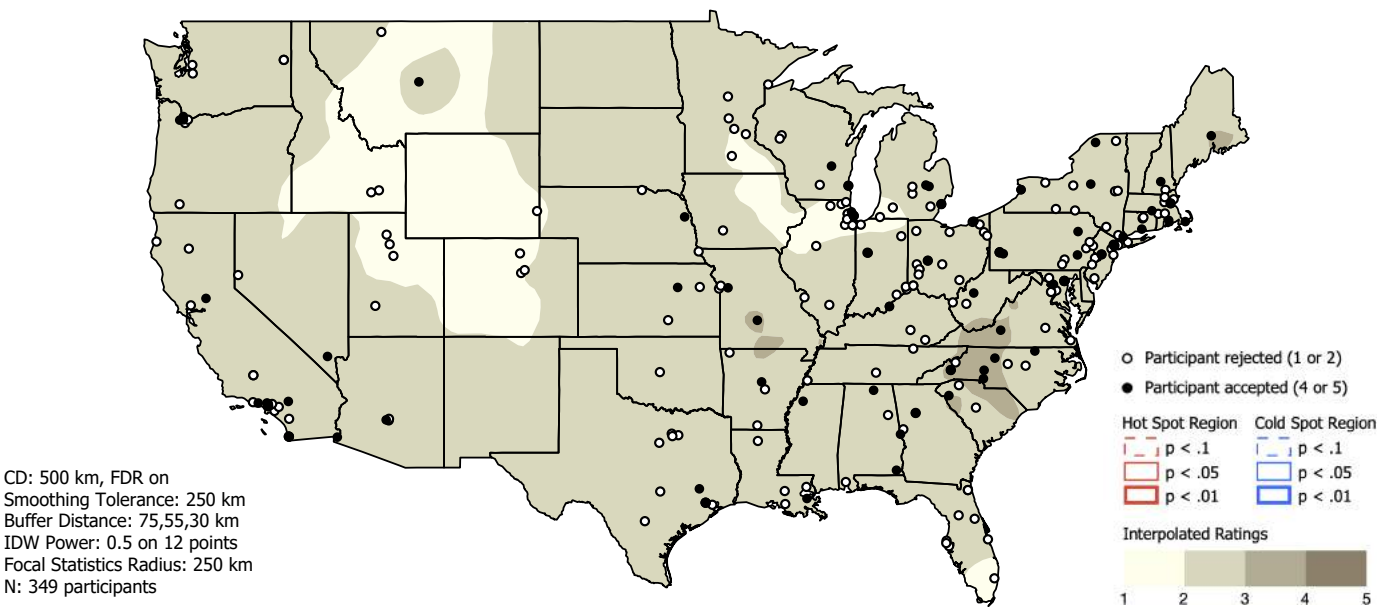


Urban/Rural



With FDR Correction

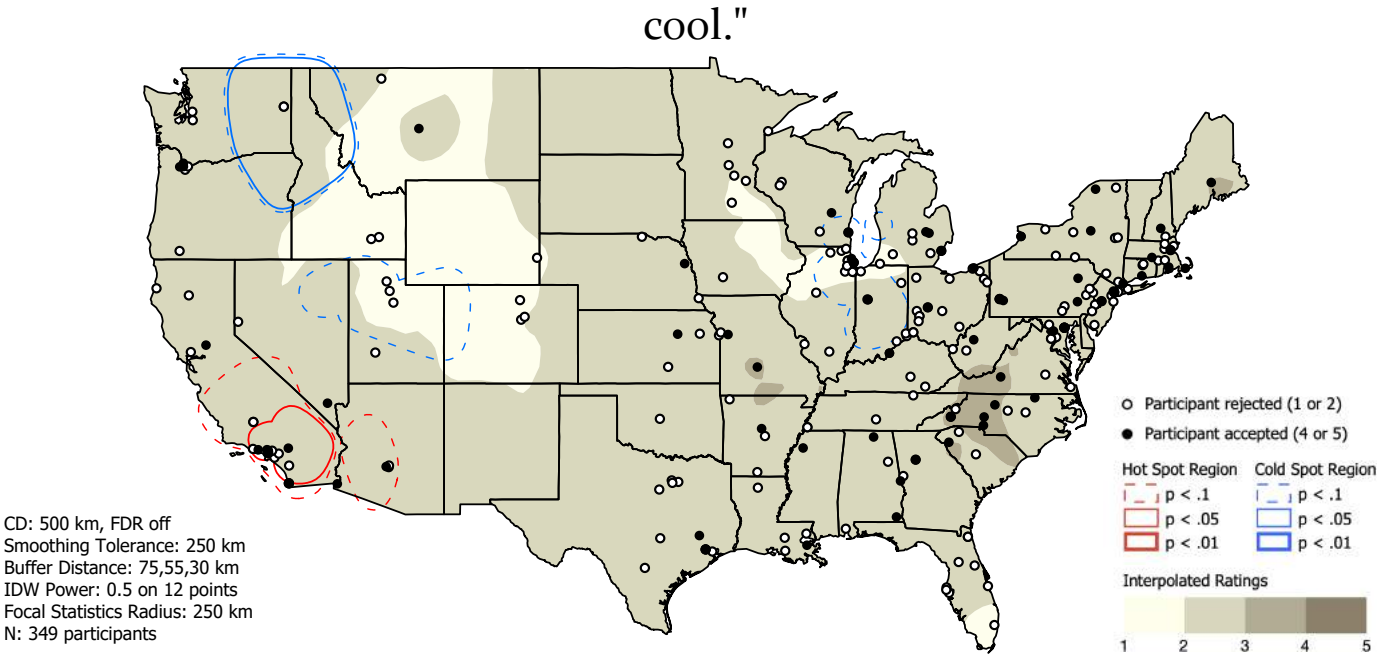
F1224: "The horses need shade in the summer for to keep cool."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

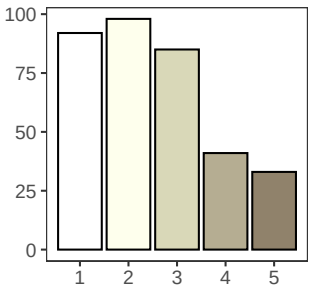
Without FDR Correction: Interpret with caution

F1224: "The horses need shade in the summer for to keep cool."

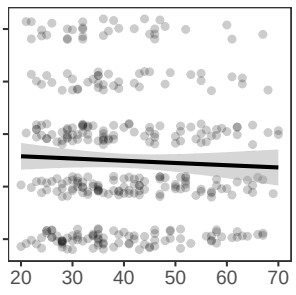


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

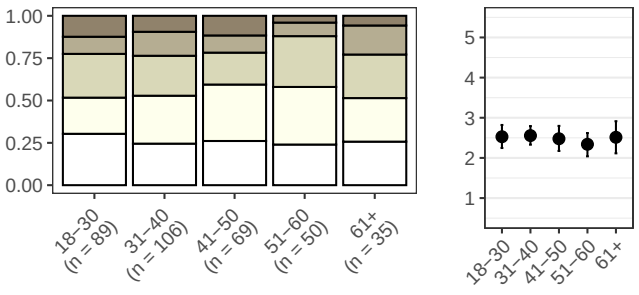
Judgments



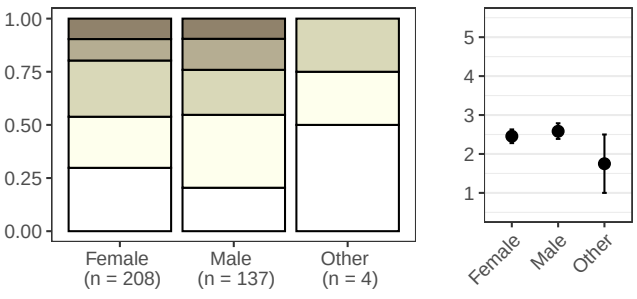
Age



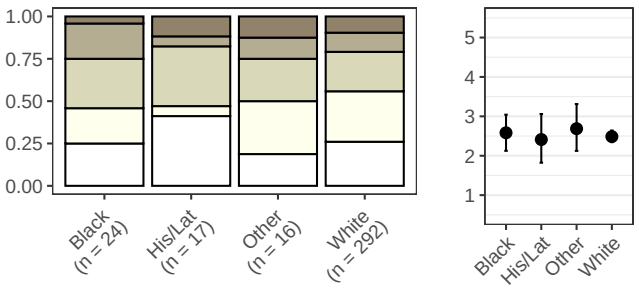
Age groups



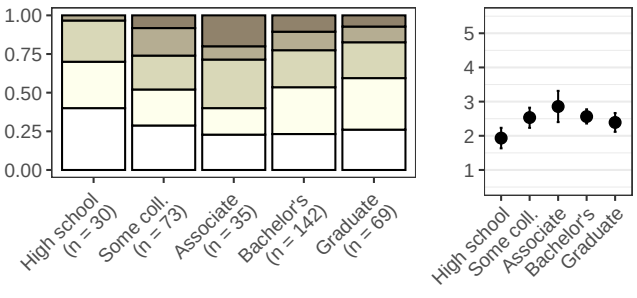
Gender



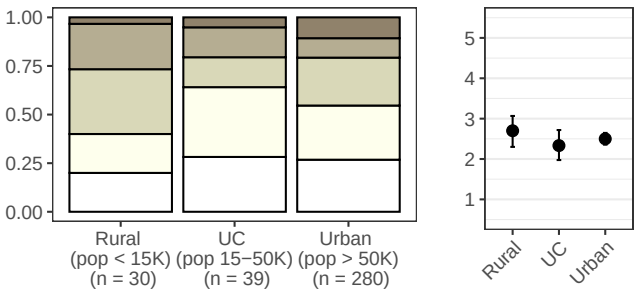
Race



Education

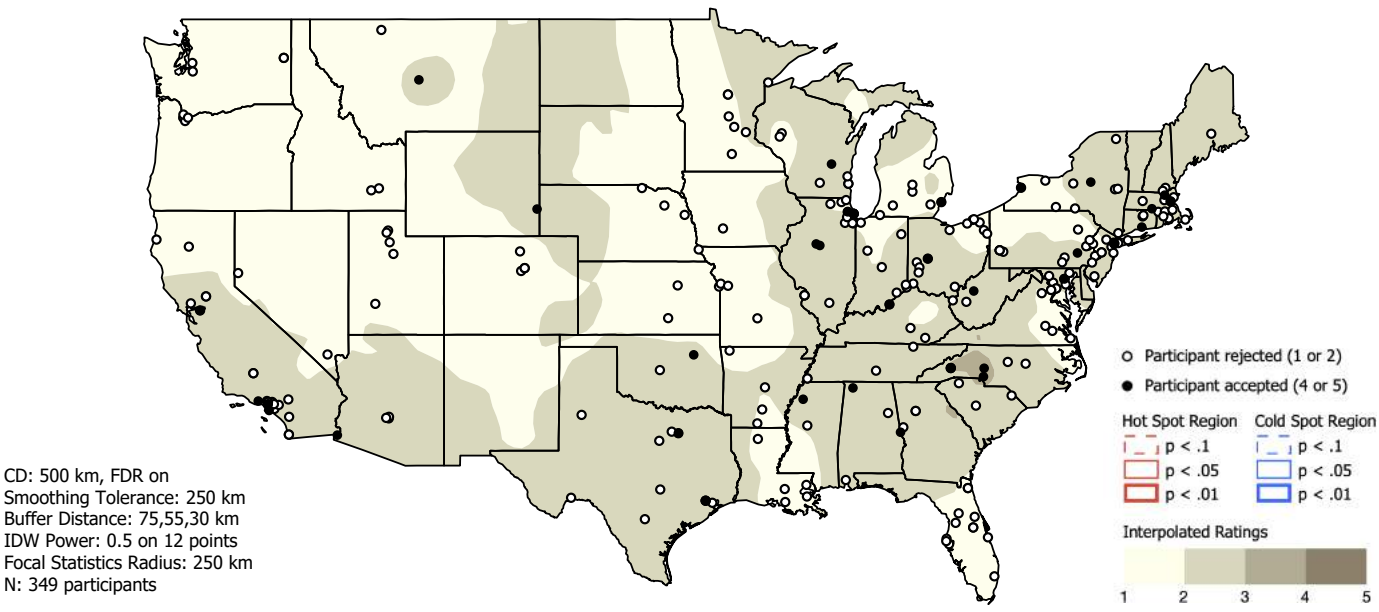


Urban/Rural



With FDR Correction

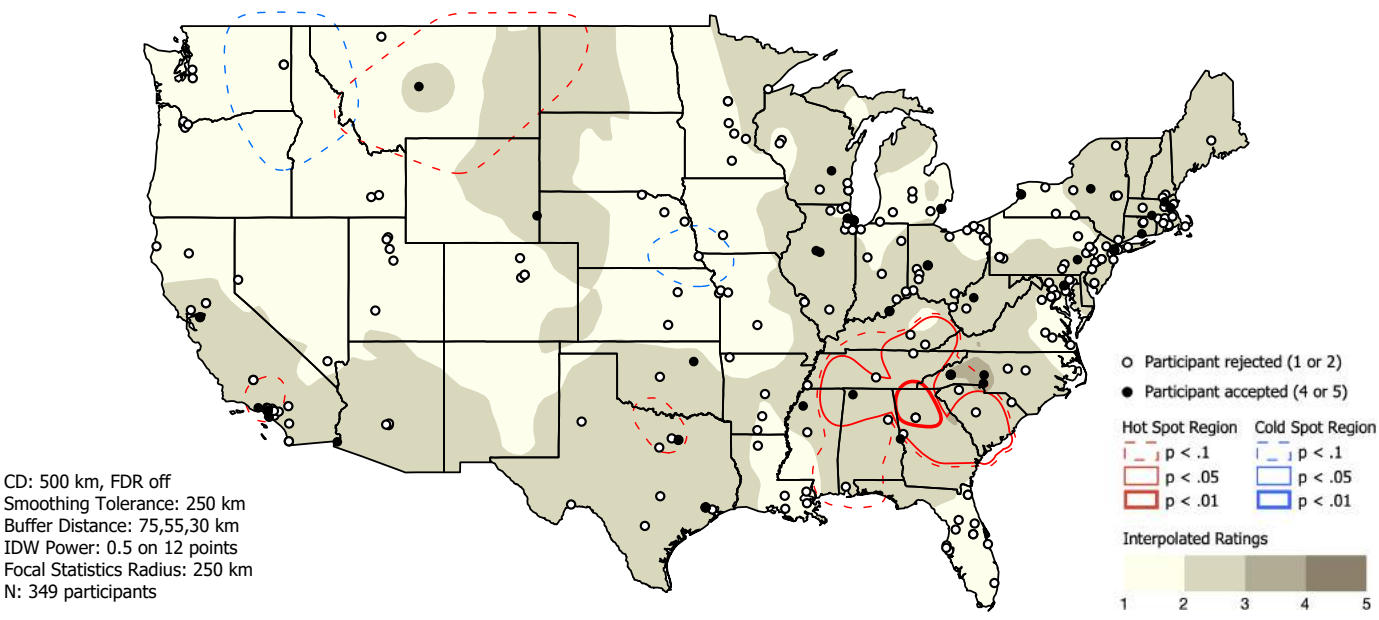
F1225: "I brought some wine for to show my gratitude."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

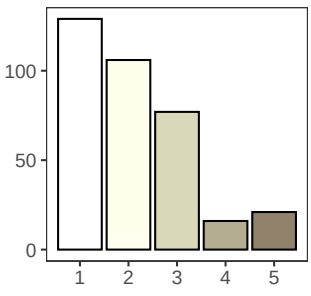
Without FDR Correction: Interpret with caution

F1225: "I brought some wine for to show my gratitude."

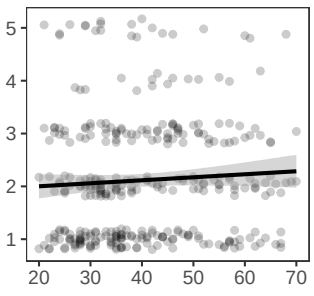


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 349 participants

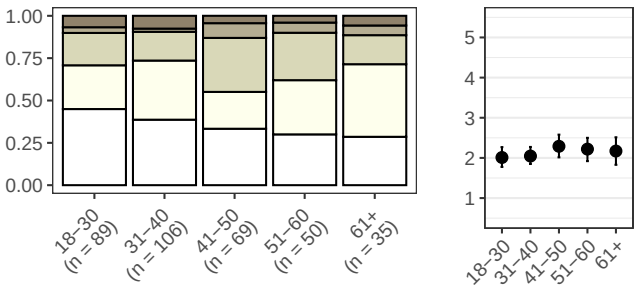
Judgments



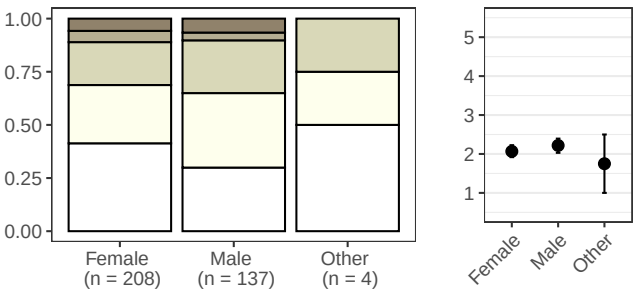
Age



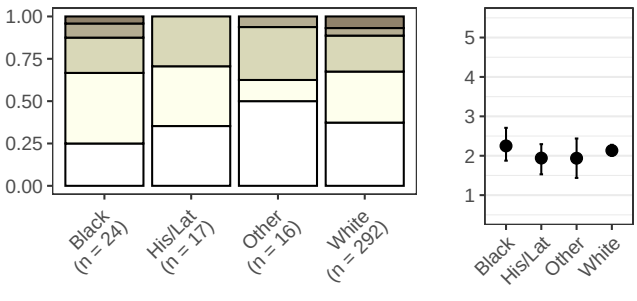
Age groups



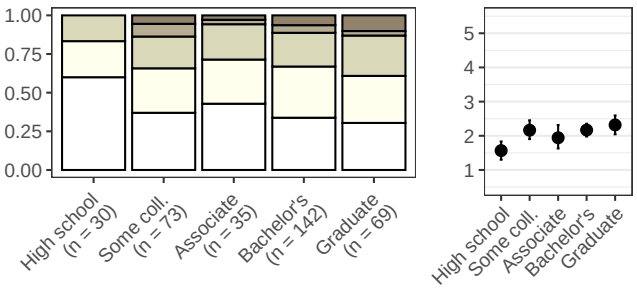
Gender



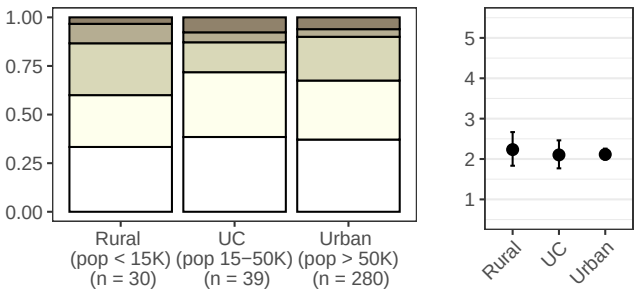
Race



Education



Urban/Rural



6 Survey 12: Verbal *Rather*

Survey 12 was a more targeted study, specifically designed to gather a lot of data on verbal *rather* (Klippenstein 2012; Wood 2013, 2019a). However, a number of sentences with *needs washed* (Edelstein 2014) and (as described in section 9) nonpolarity *anymore* (Horn 2013a) were included as well. The possibility of an interaction between verbal *rather* and *needs washed* was also investigated, but this did not lead to any interesting results, as far as we can tell so far (see section 7.5 for details).

The verbal *rather* sentences were divided into four types, with three sentences instantiating each type. In the INFINITIVE type, the lexical verb in the complement of the *rather* structure is "bare" (that is, in the infinitive form), and there is no distinct overt subject for this verb.

(21)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1231	I would have rathered go to a small school.	550	2.46	1.40	12
F1232	I would have rathered sleep on the couch.	550	2.41	1.39	12
F1233	We would have rathered stay in bed.	550	3.02	1.53	12
F1267	I would have rather go to a small school.	551	2.32	1.27	12
F1268	I would have rather sleep on the couch.	551	2.33	1.31	12
F1269	We would have rather stay in bed.	551	2.62	1.37	12
F1048	I would've rathered go to a small school.	1602	2.27	1.33	5, 5b, 8

In these sentences, as in the others to be discussed, there are three different lexicalizations, and for each, there is a form with uninflected *rather* and inflected *rathered*. In addition, we see that a variant of 1231, 1048, appears on surveys 5, 8 and 5b. It differs only in presenting the contraction *would've* in place of *would have*.

In the PARTICIPLE form, the lexical verb in the complement of the *rather* structure is in the perfect participle form, and there is no distinct overt subject for this verb.

(22)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1240	I would have rathered gone to a small school.	551	2.74	1.51	12
F1241	I would have rathered slept on the couch.	551	2.93	1.54	12
F1242	We would have rathered stayed in bed.	550	3.08	1.55	12
F1276	I would have rather gone to a small school.	551	4.33	1.08	12
F1277	I would have rather slept on the couch.	551	4.44	1.04	12
F1278	We would have rather stayed in bed.	551	4.28	1.14	12
F1047	I would've rathered gone to a small school.	1600	2.84	1.57	5, 5b, 8

Here again, there are three lexicalizations, versions with *rathered* and *rather*, and 1047 as a variant of 1240, which appeared on surveys 5, 8, and 5b.

In the ECM INFINITIVE type, the lexical verb in the complement of the *rather* structure is "bare" (that is, in the infinitive form), and there is a distinct overt subject for this verb in the accusative case (*him* in all sentences).

(23)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1249	I would have rathered him go to a small school.	550	2.99	1.47	12
F1250	I would have rathered him sleep on the couch.	550	3.07	1.51	12
F1251	We would have rathered him stay in bed.	551	3.24	1.46	12
F1285	I would have rather him go to a small school.	551	3.44	1.40	12
F1286	I would have rather him sleep on the couch.	551	3.26	1.43	12
F1287	We would have rather him stay in bed.	551	3.44	1.40	12
F1029	I would've rathered him go to a small school.	539	2.88	1.47	8

As with the above cases, there are three lexicalizations and versions with *rathered* and *rather*. 1029 appeared on survey 8 (but not 5 and 5b), and corresponds to 1249 (but with contraction).

Finally, in the ECM INFINITIVE type, the lexical verb in the complement of the *rather* structure is in the perfect participle form, and there is a distinct overt subject for this verb in the accusative case (*him* in all sentences).

(24)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1258	I would have rathered him gone to a small school.	551	2.87	1.49	12
F1259	I would have rathered him slept on the couch.	551	2.82	1.44	12
F1260	We would have rathered him stayed in bed.	551	2.97	1.51	12
F1294	I would have rather him gone to a small school.	551	3.42	1.40	12
F1295	I would have rather him slept on the couch.	551	3.43	1.39	12
F1296	We would have rather him stayed in bed.	551	3.24	1.44	12
F1030	I would've rather him gone to a small school.	539	3.42	1.44	8

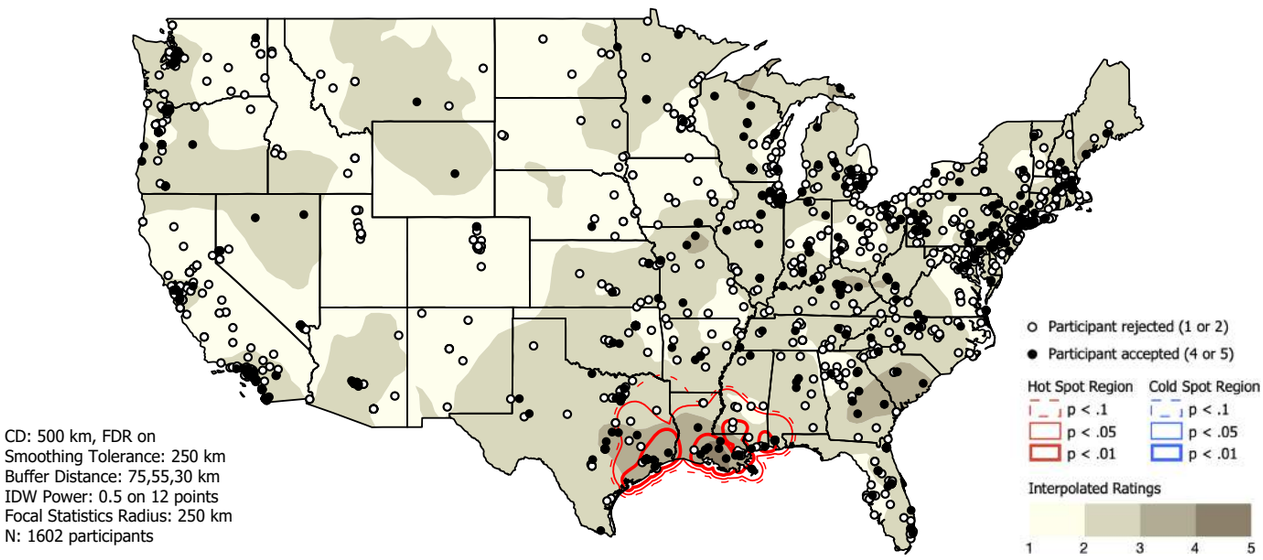
Once again, there are three lexicalizations and versions with *rathered* and *rather*. 1030 appeared on survey 8 (but not 5 and 5b), and corresponds to 1294 (but with contraction).

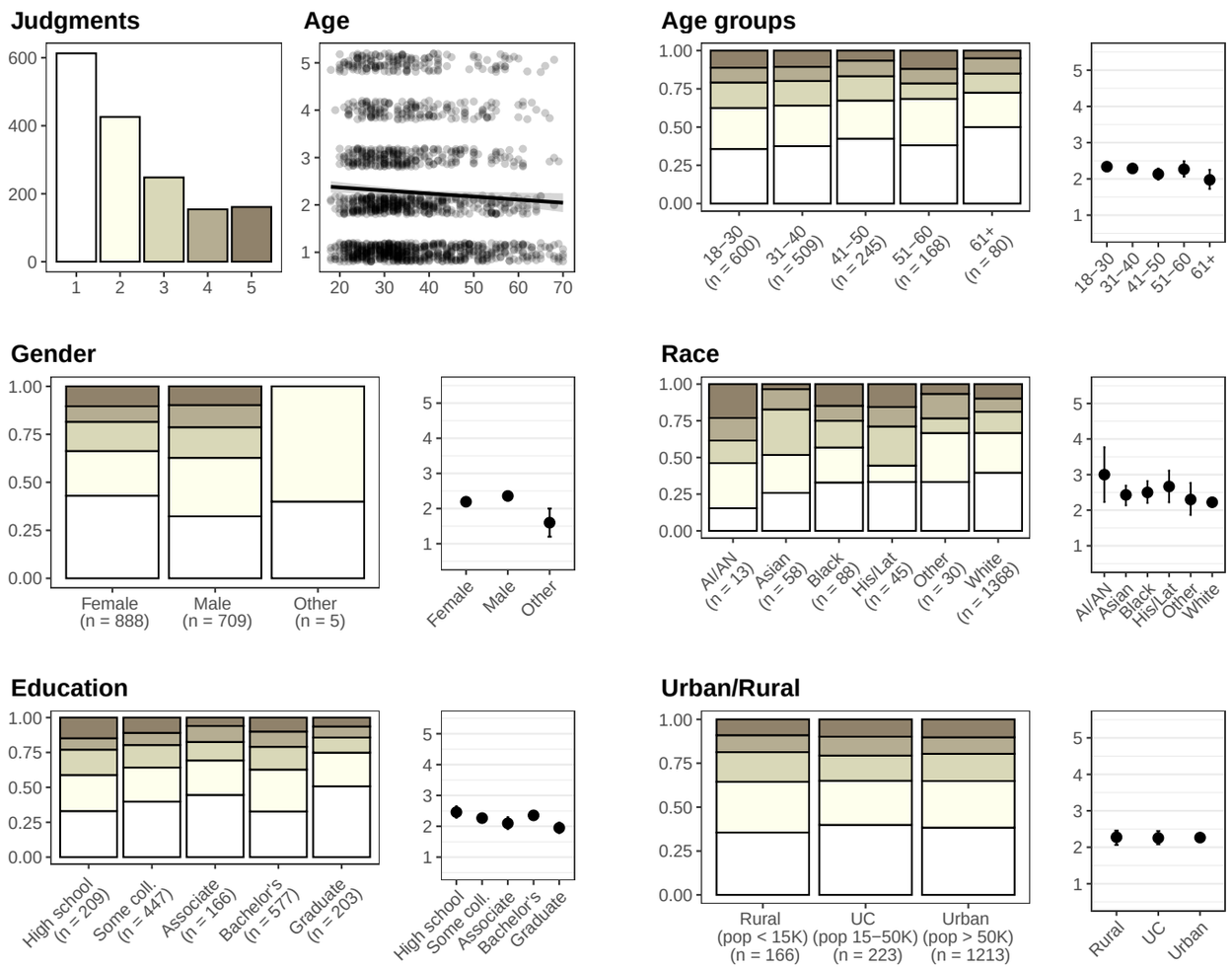
There are some interesting initial results connected with these (Wood 2019a), but very few geographical results show up with the FDR correction and the parameters used here. The maps below show the four sentences where significant results are found with the FDR correction, and the rest of the maps are presented without the FDR correction. It remains to be seen if any of these reflect real geographic patterns or not.

6.1 Maps with FDR correction

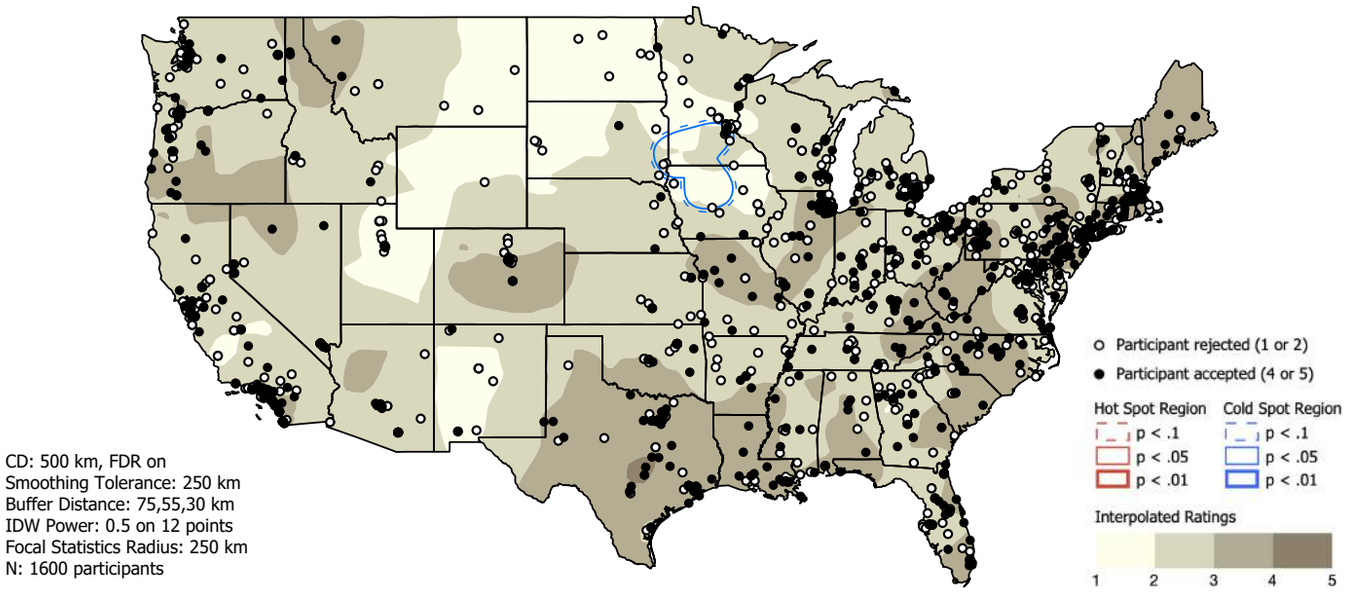
Please note that with the exception of the maps in the this subsection, all of the maps for verbal *rather* have been made without the FDR correction. When the FDR correction is used, very few of them have significant results. The patterns here should, pending further investigation, be taken only as suggestive (at most), pending further investigation.

F1048: "I would've rathered go to a small school."



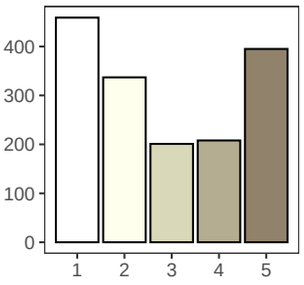


F1047: "I would've rathered gone to a small school."

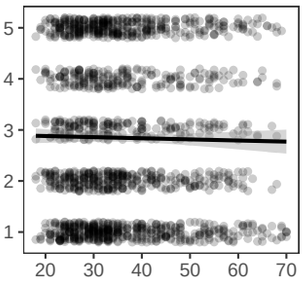


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1600 participants

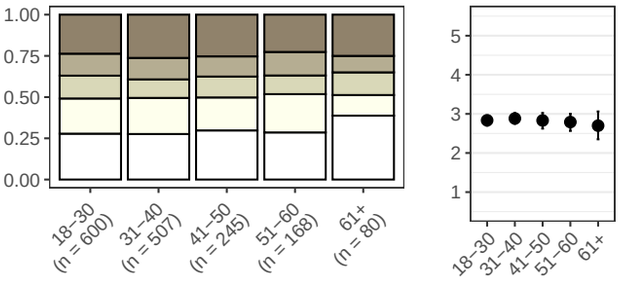
Judgments



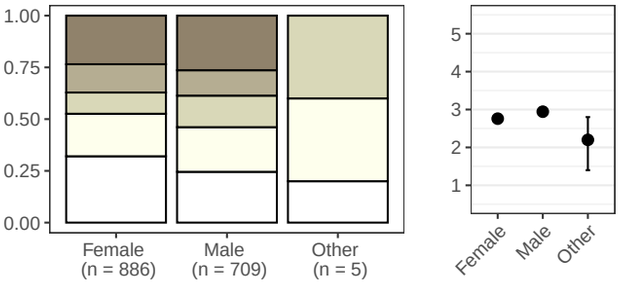
Age



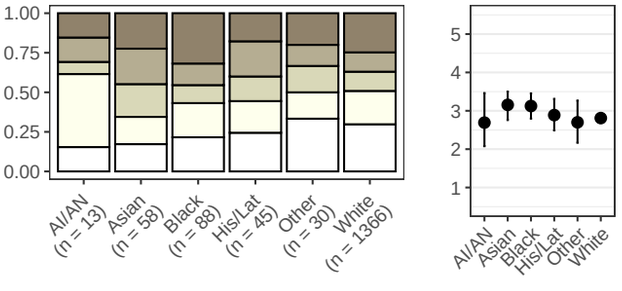
Age groups



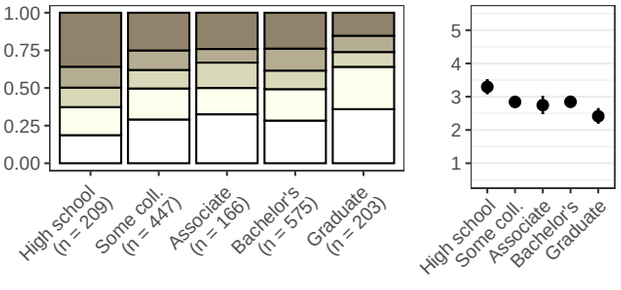
Gender



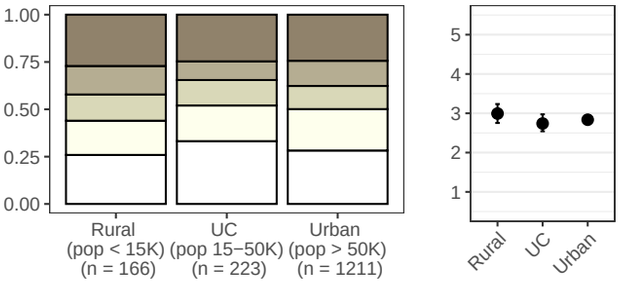
Race



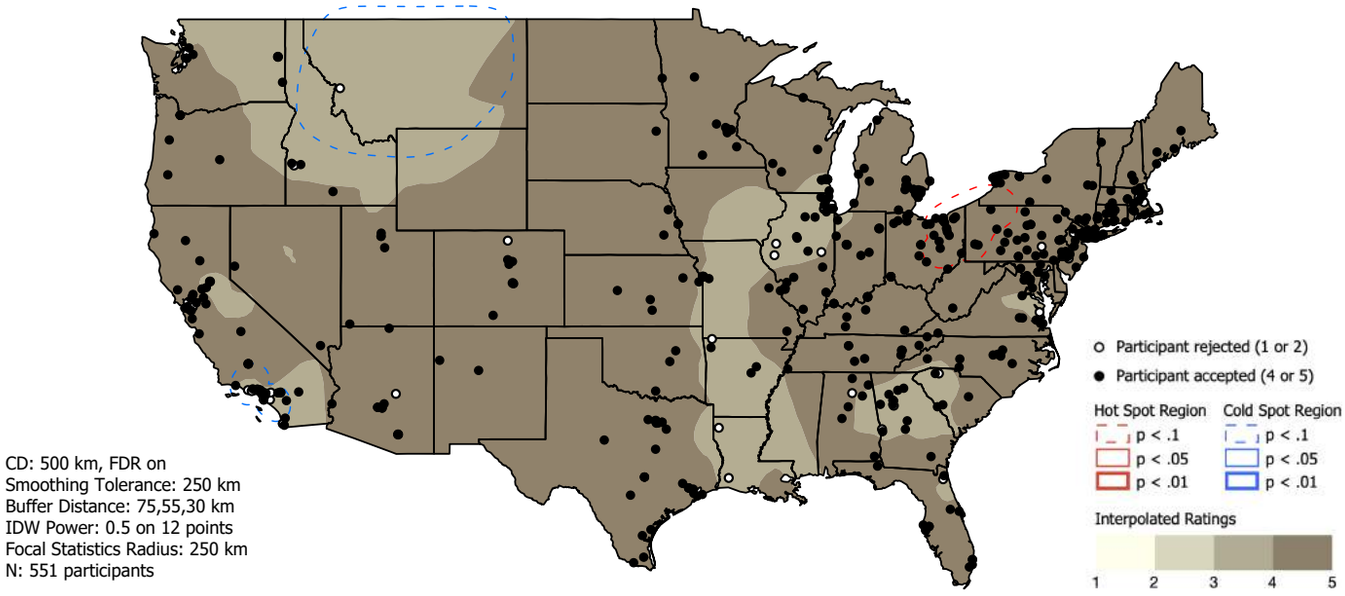
Education



Urban/Rural

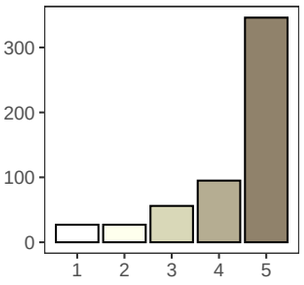


F1278: "We would have rather stayed in bed."

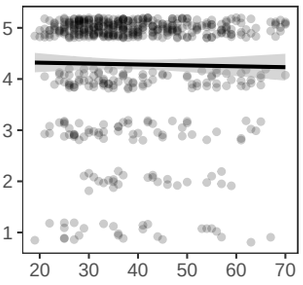


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

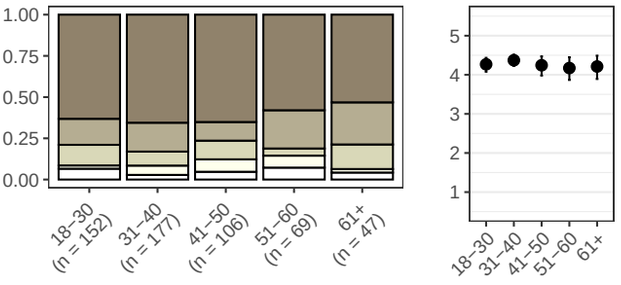
Judgments



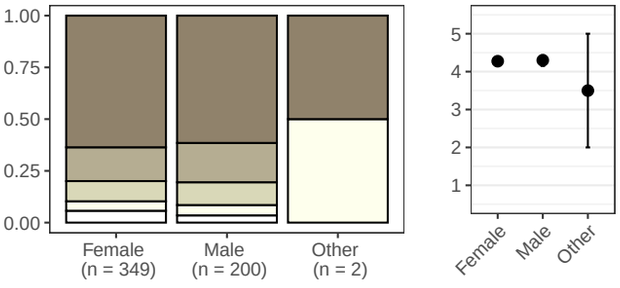
Age



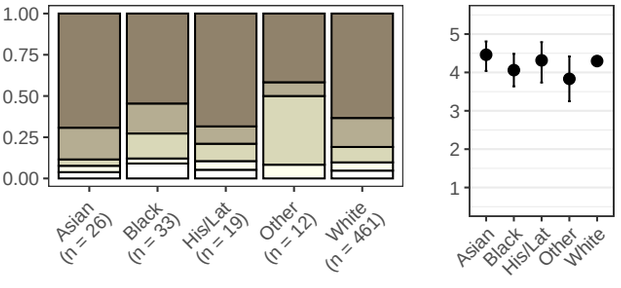
Age groups



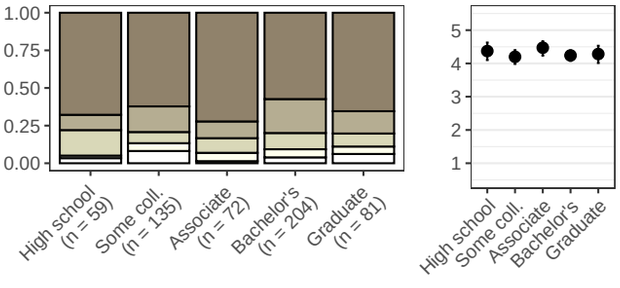
Gender



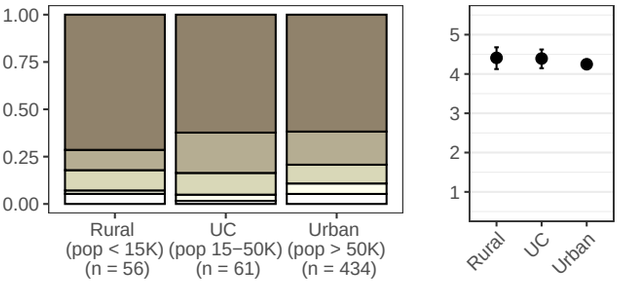
Race



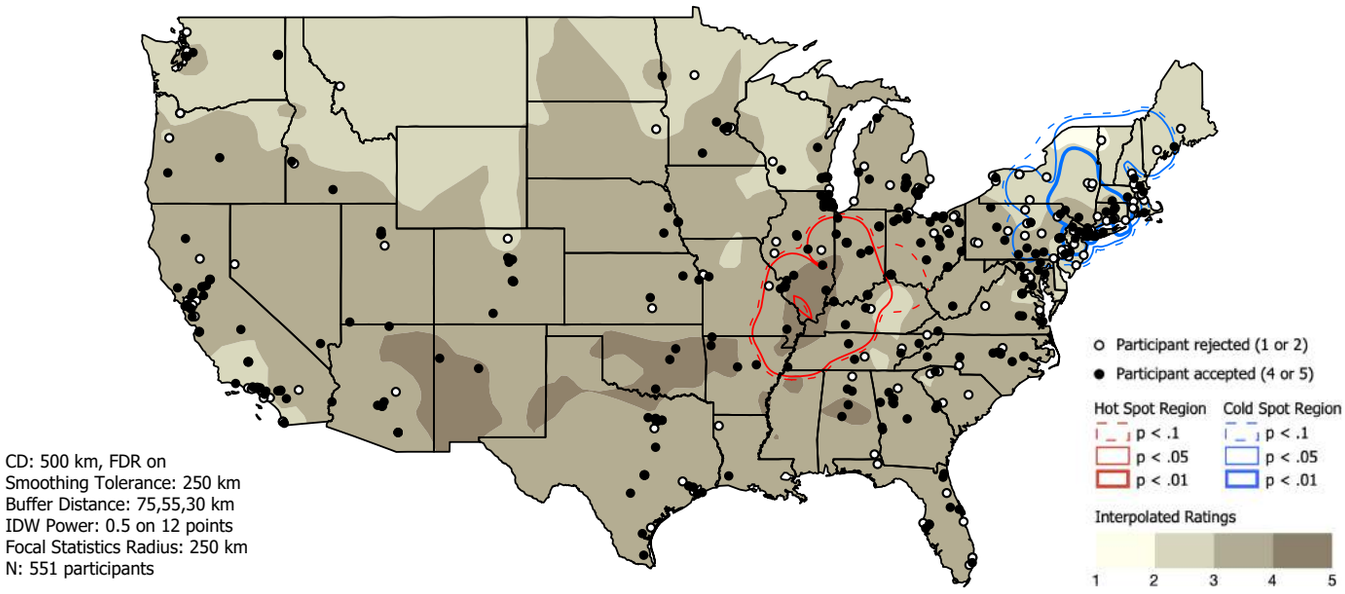
Education



Urban/Rural

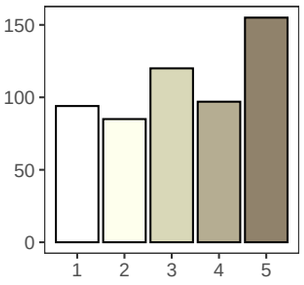


F1296: "We would have rather him stayed in bed."

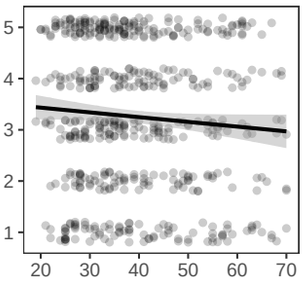


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

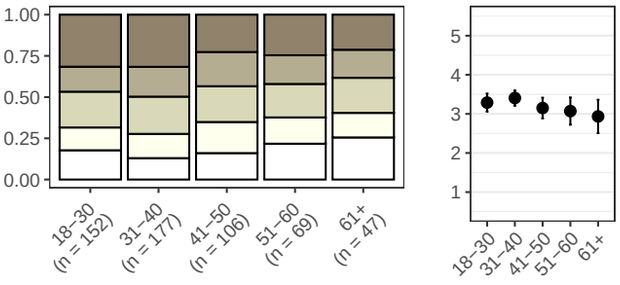
Judgments



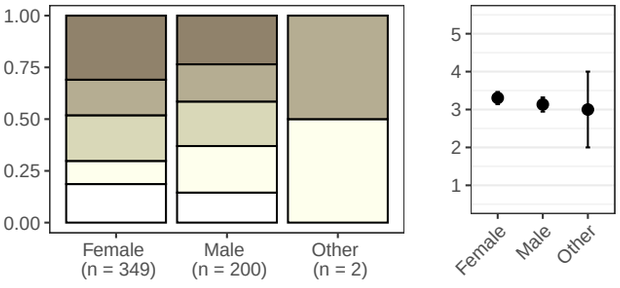
Age



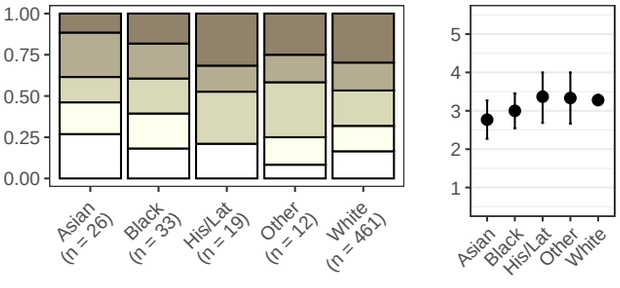
Age groups



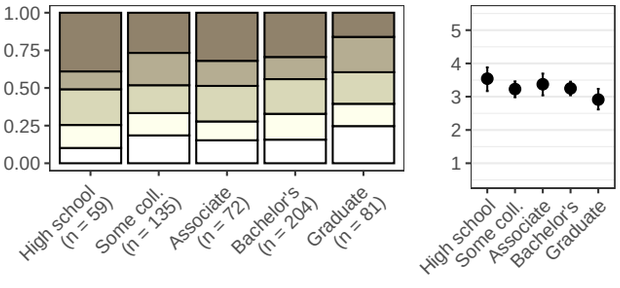
Gender



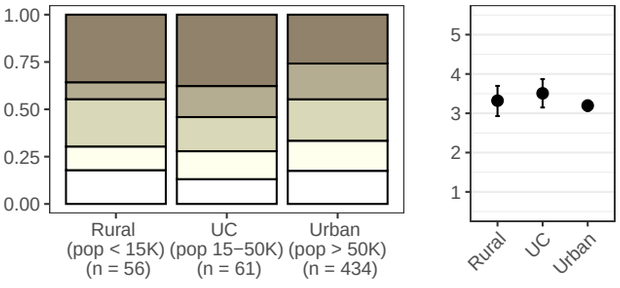
Race



Education



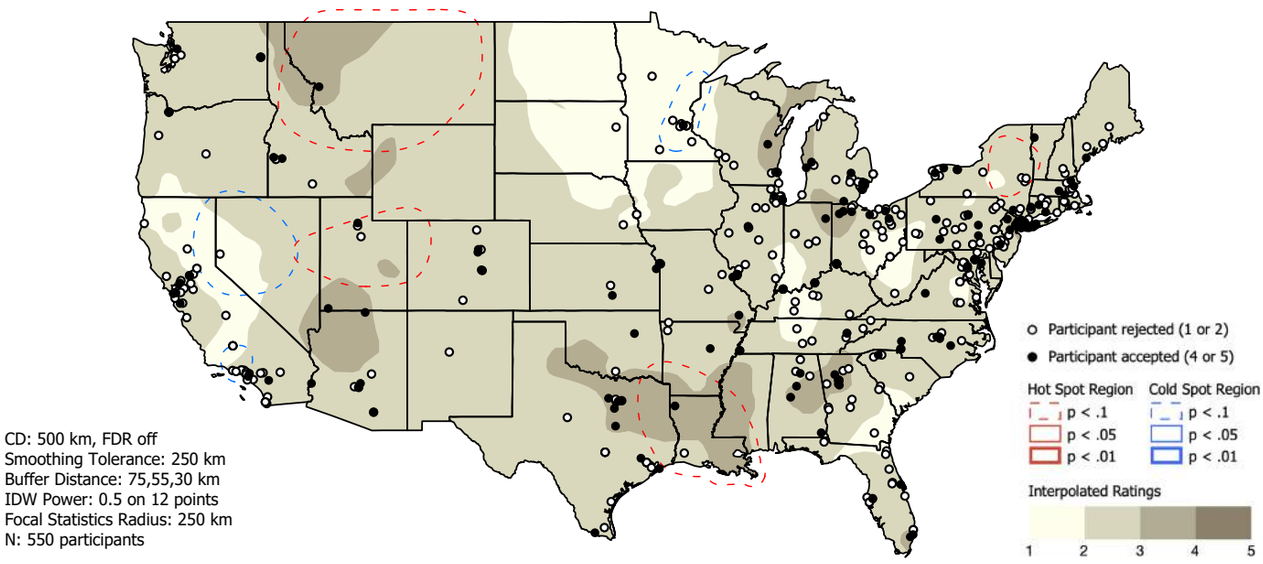
Urban/Rural

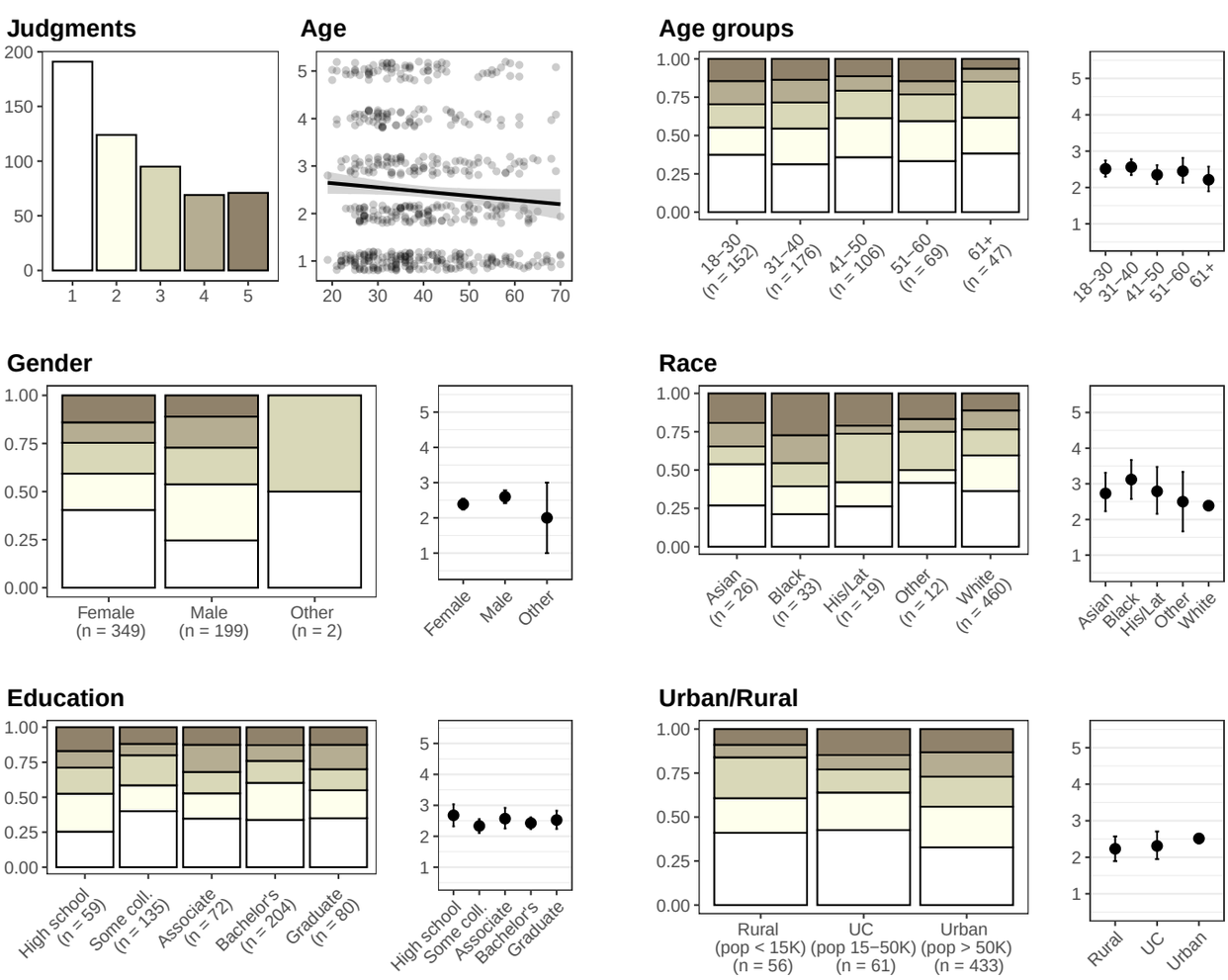


6.2 No Embedded Subject

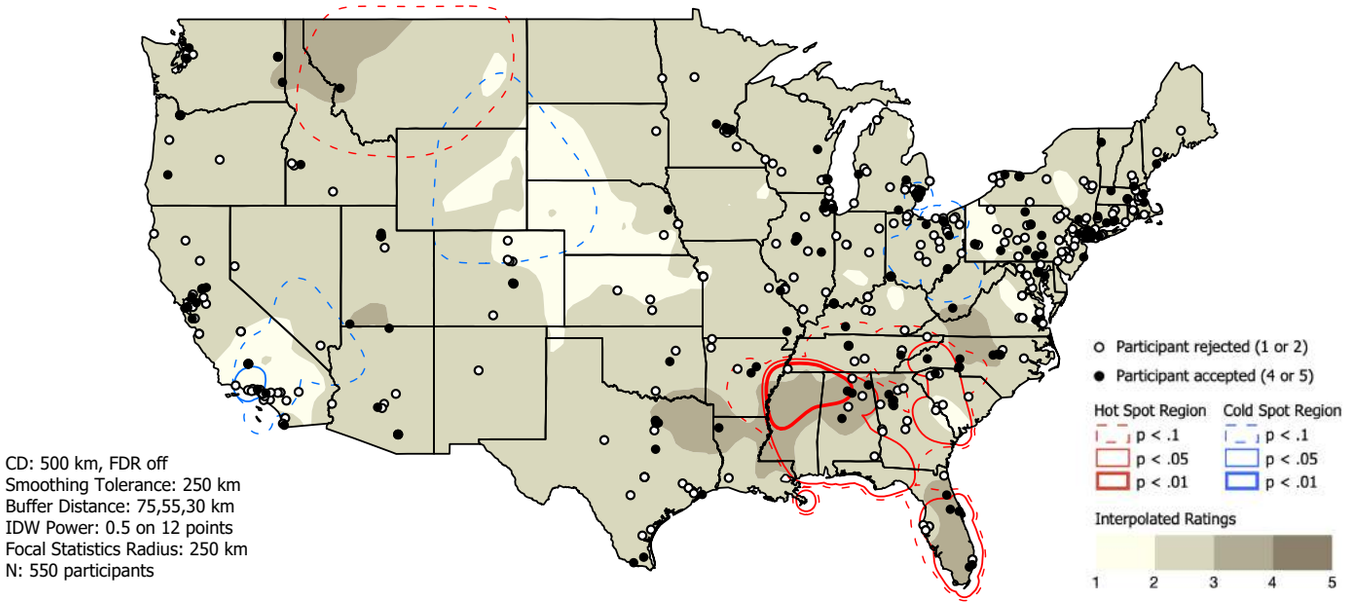
6.2.1 *Rathered* + Infinitive Form

F1231: "I would have rathered go to a small school."



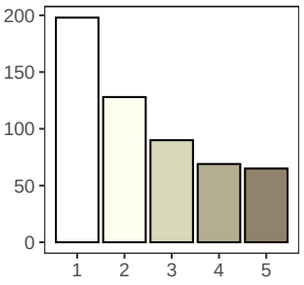


F1232: "I would have rathered sleep on the couch."

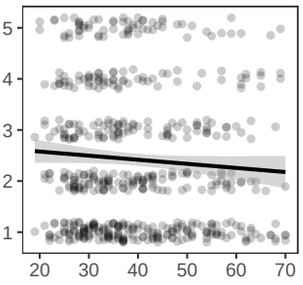


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

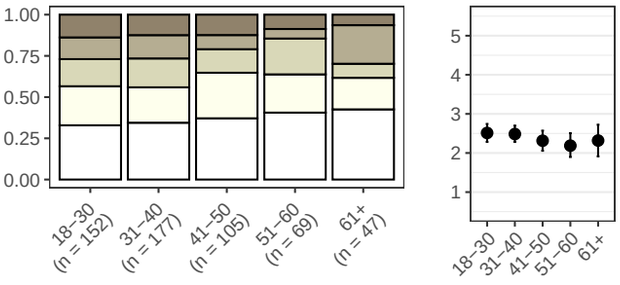
Judgments



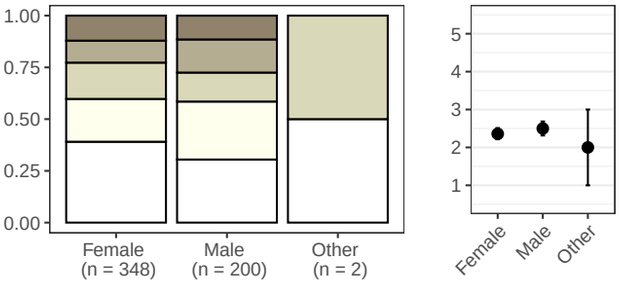
Age



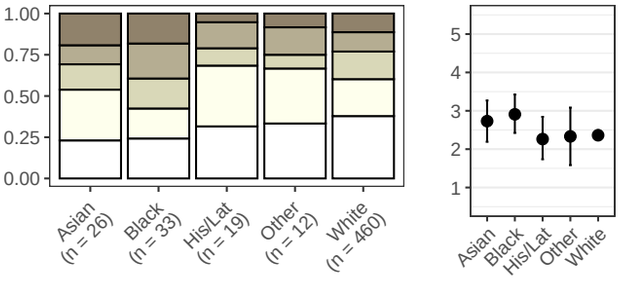
Age groups



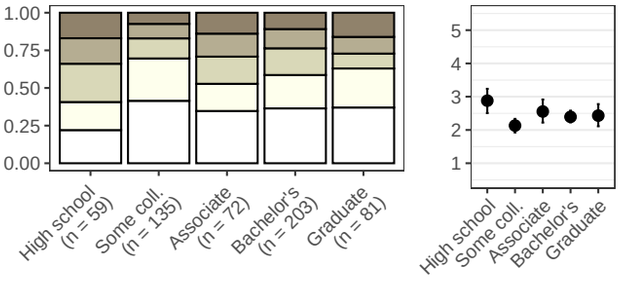
Gender



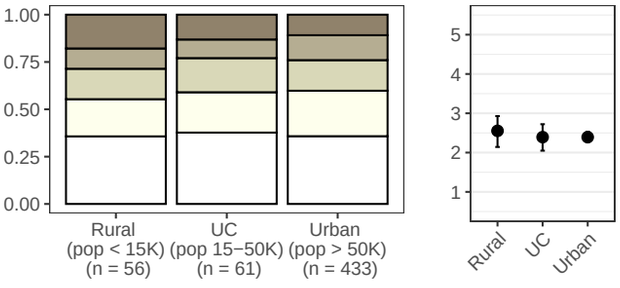
Race



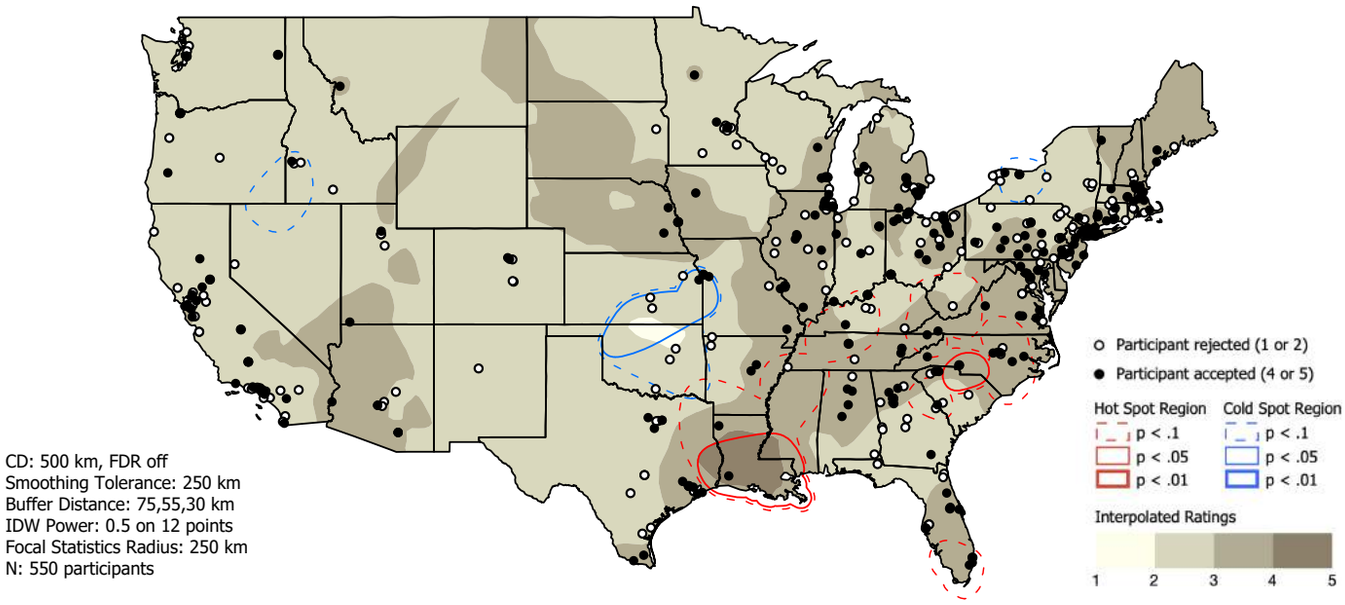
Education



Urban/Rural

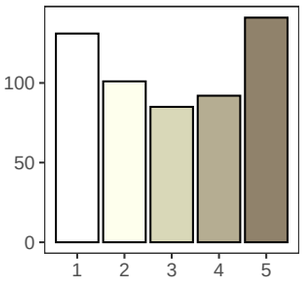


F1233: "We would have rathered stay in bed."

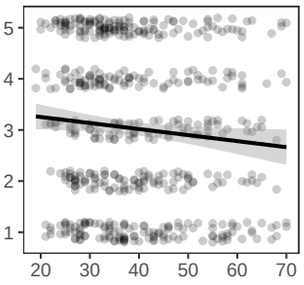


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

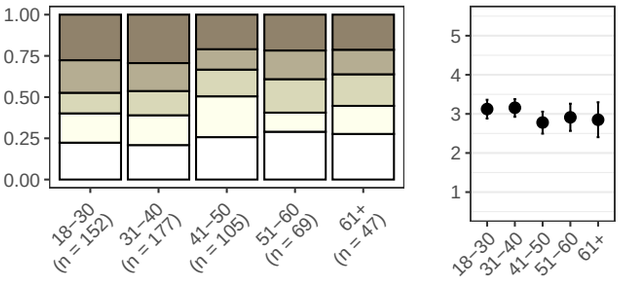
Judgments



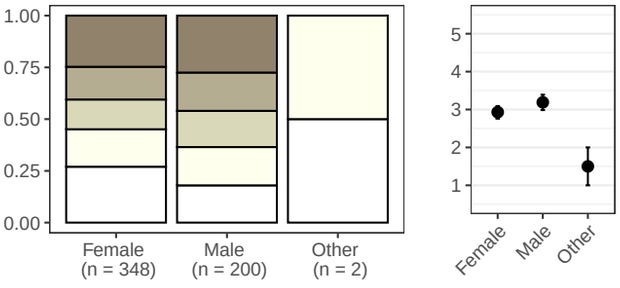
Age



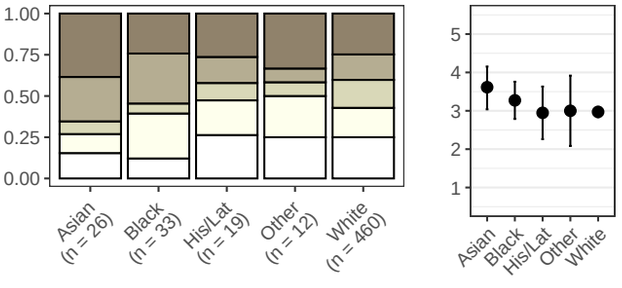
Age groups



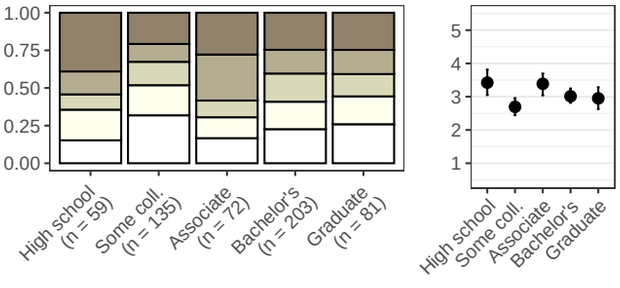
Gender



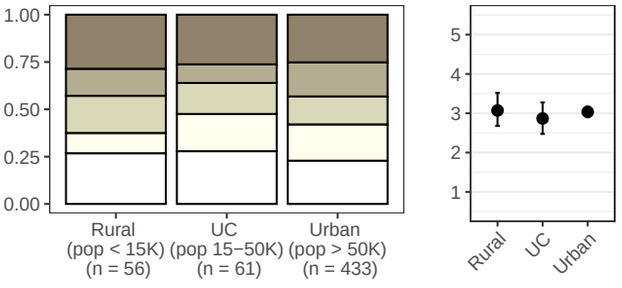
Race



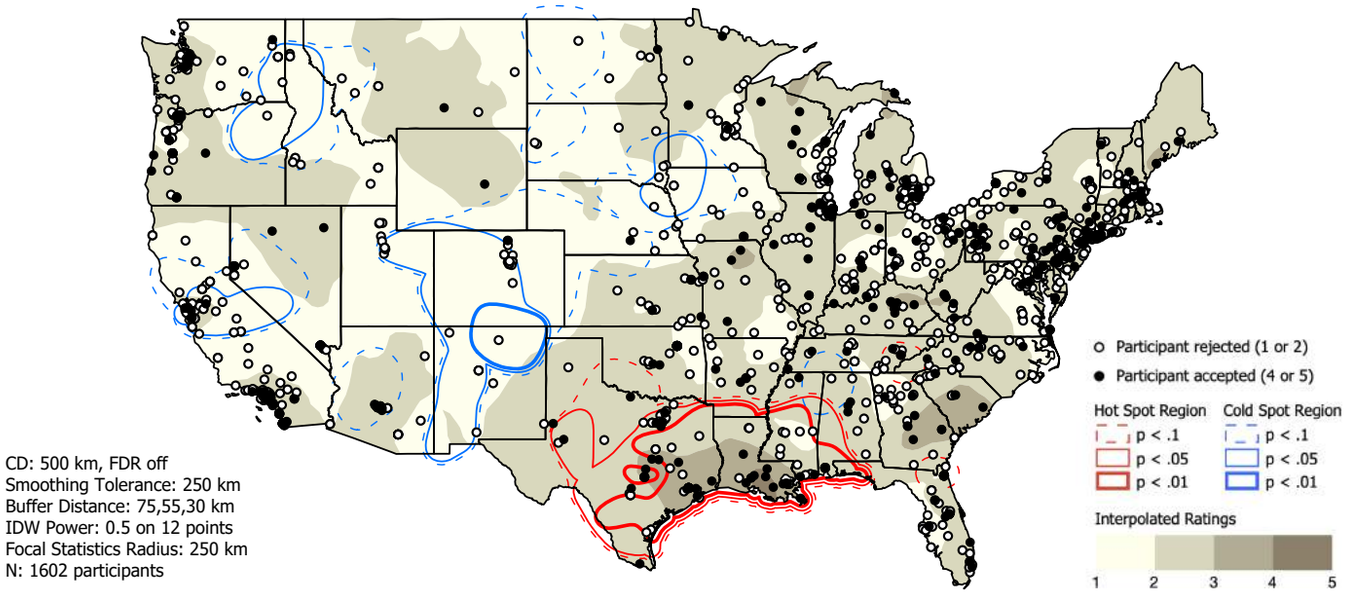
Education



Urban/Rural

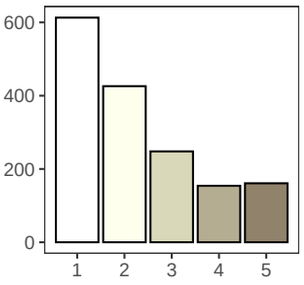


F1048: "I would've rathered go to a small school."

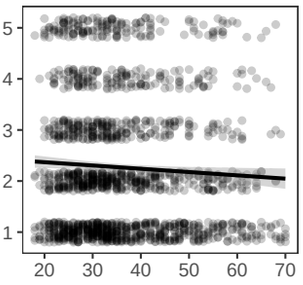


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

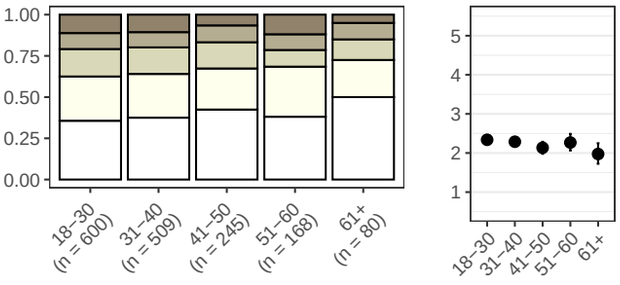
Judgments



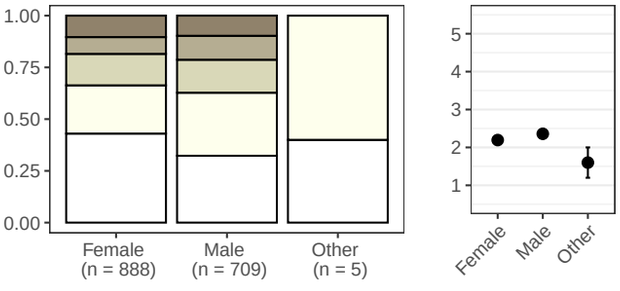
Age



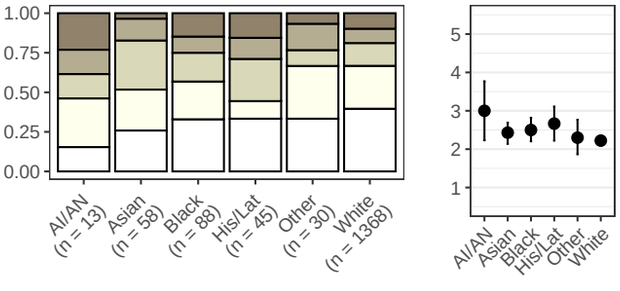
Age groups



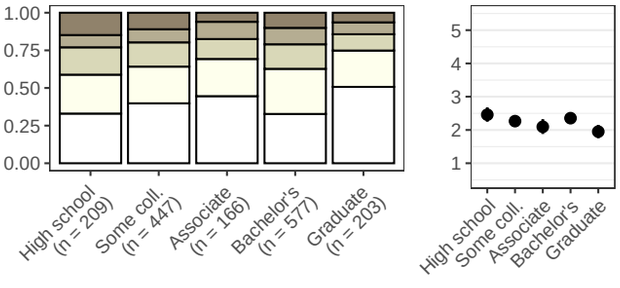
Gender



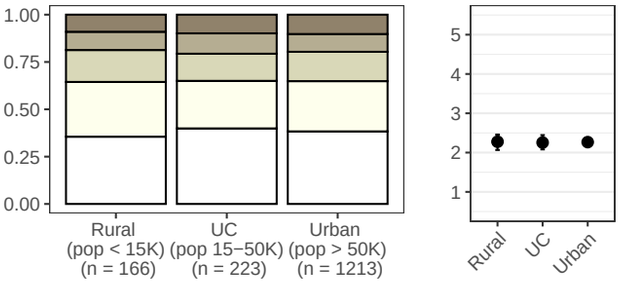
Race



Education

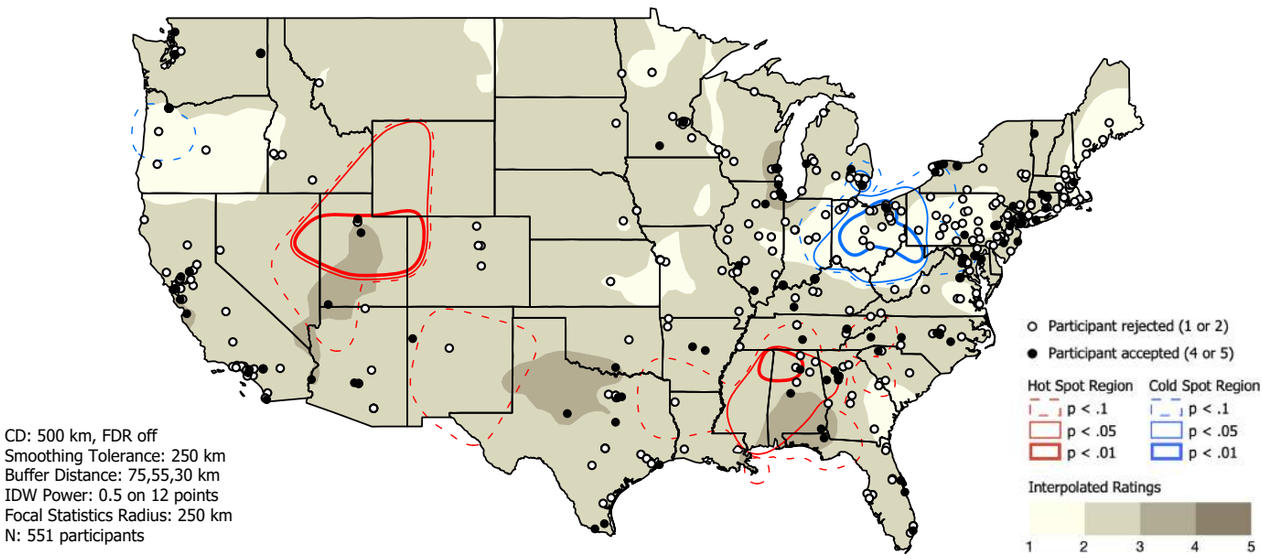


Urban/Rural

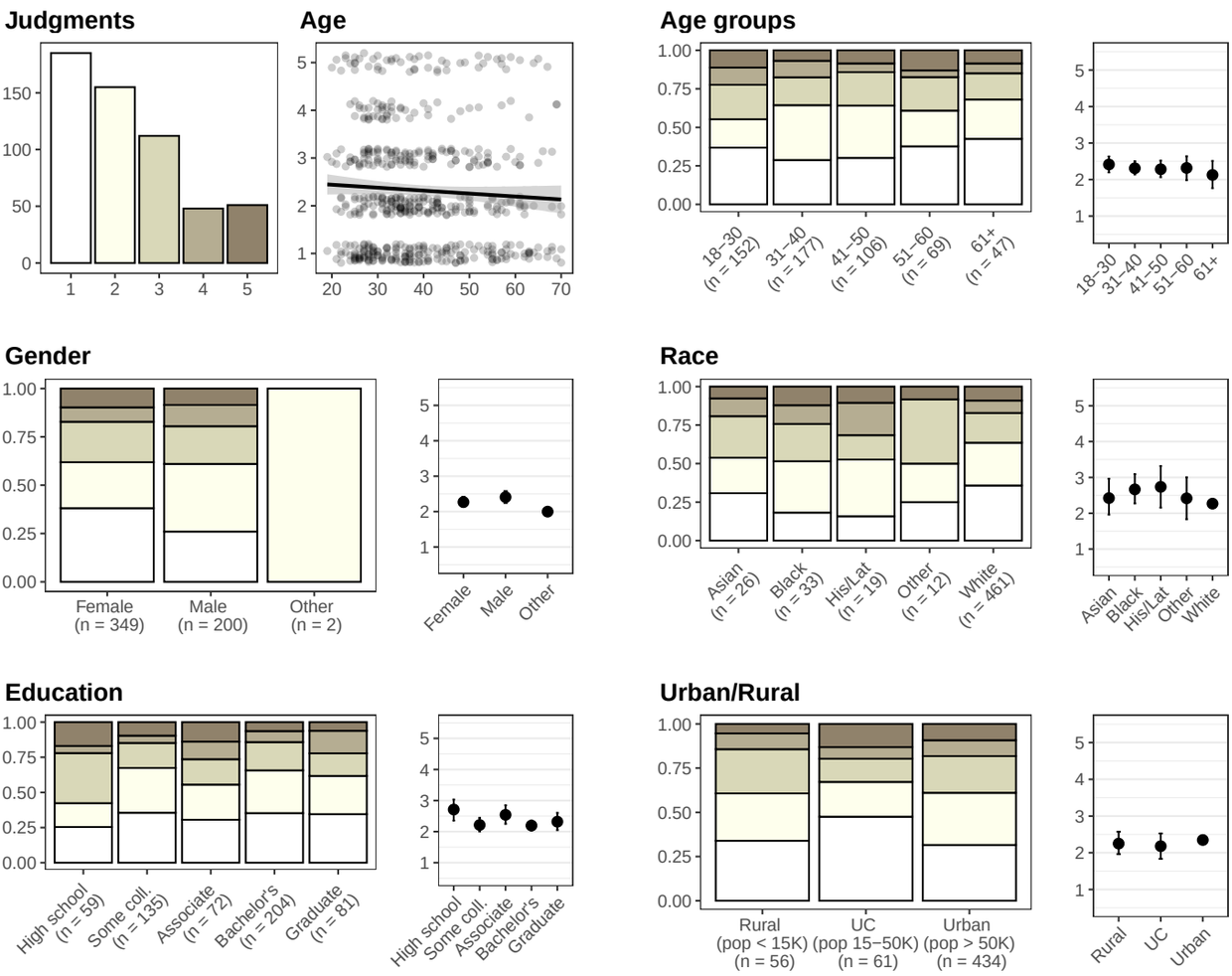


6.2.2 *Rather* + Infinitive Form

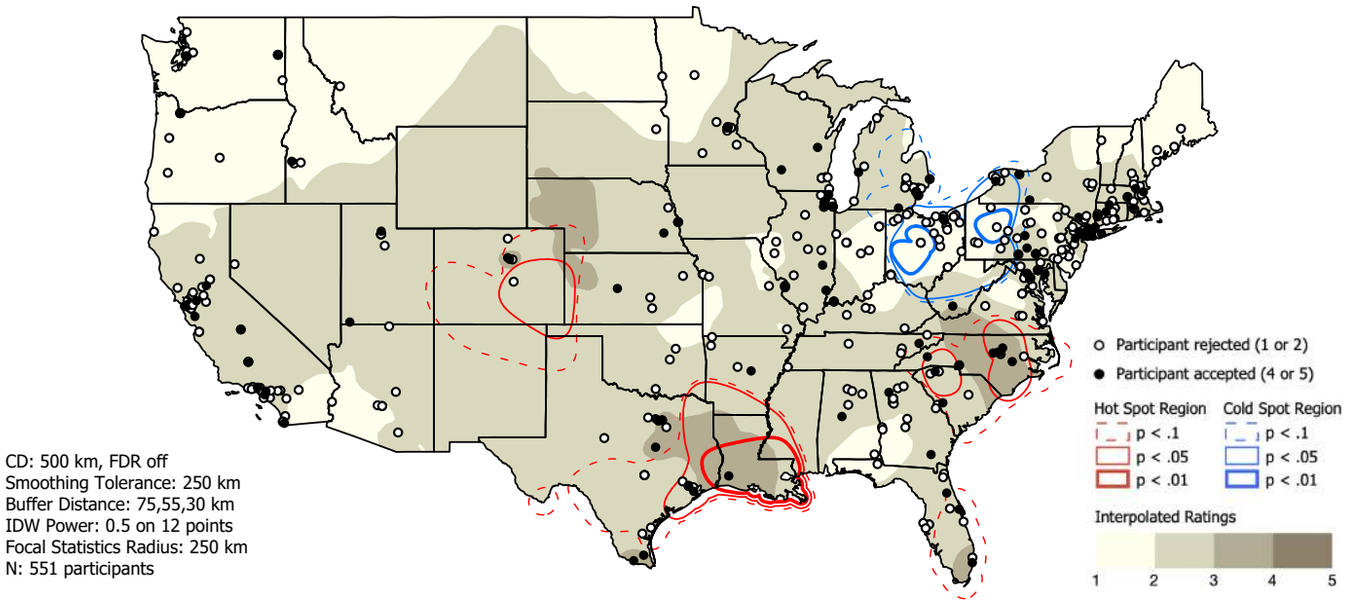
F1267: "I would have rather go to a small school."



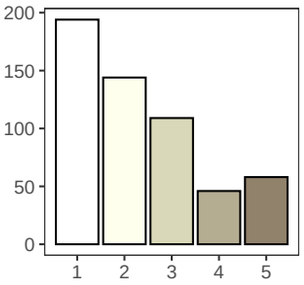
CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants



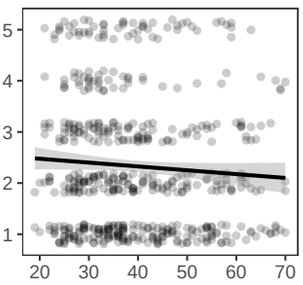
F1268: "I would have rather sleep on the couch."



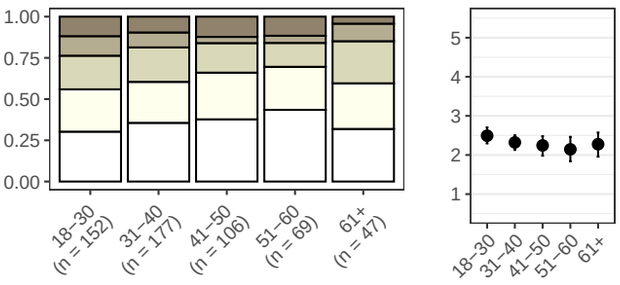
Judgments



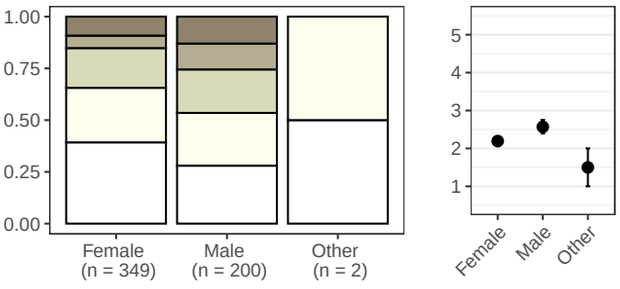
Age



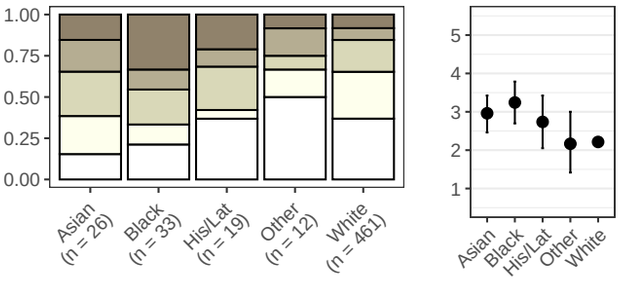
Age groups



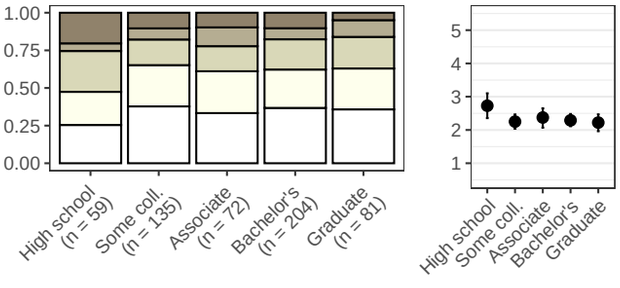
Gender



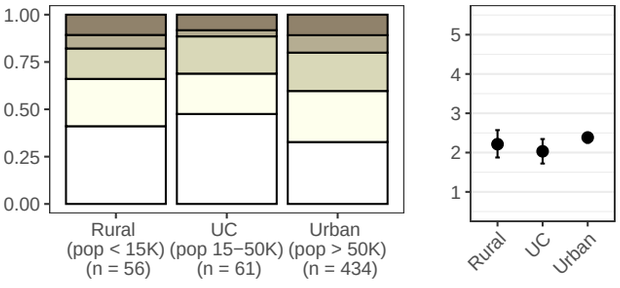
Race



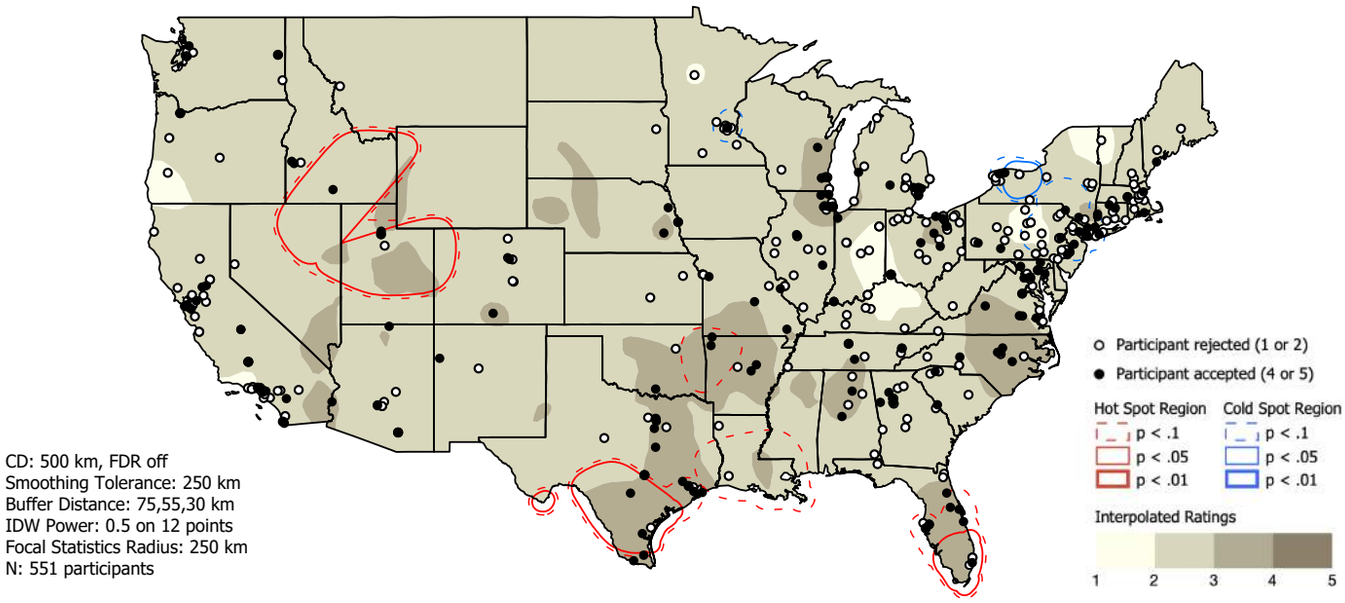
Education



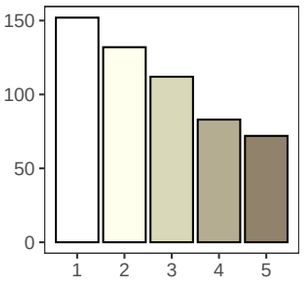
Urban/Rural



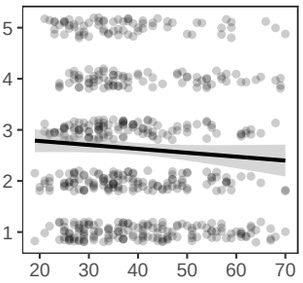
F1269: "We would have rather stay in bed."



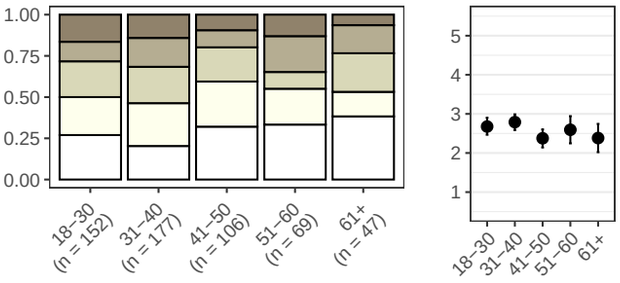
Judgments



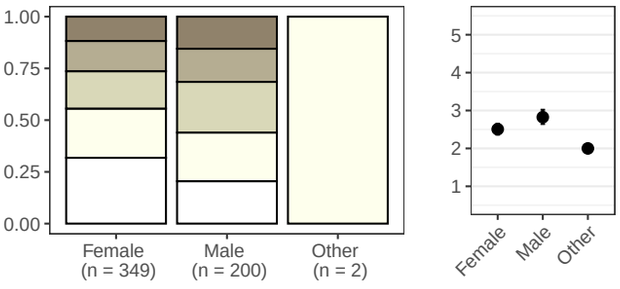
Age



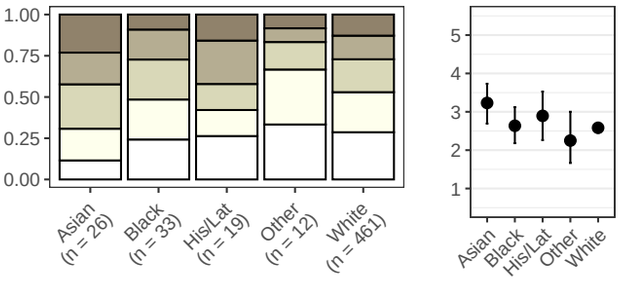
Age groups



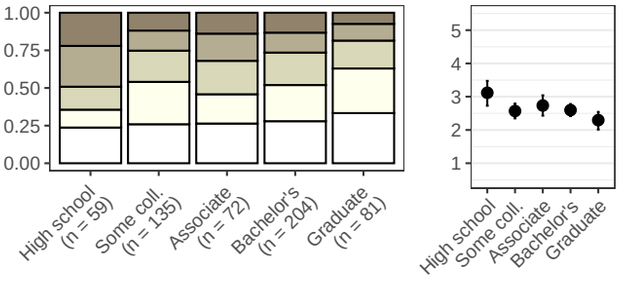
Gender



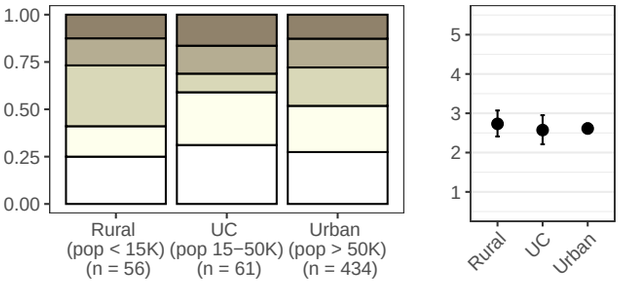
Race



Education

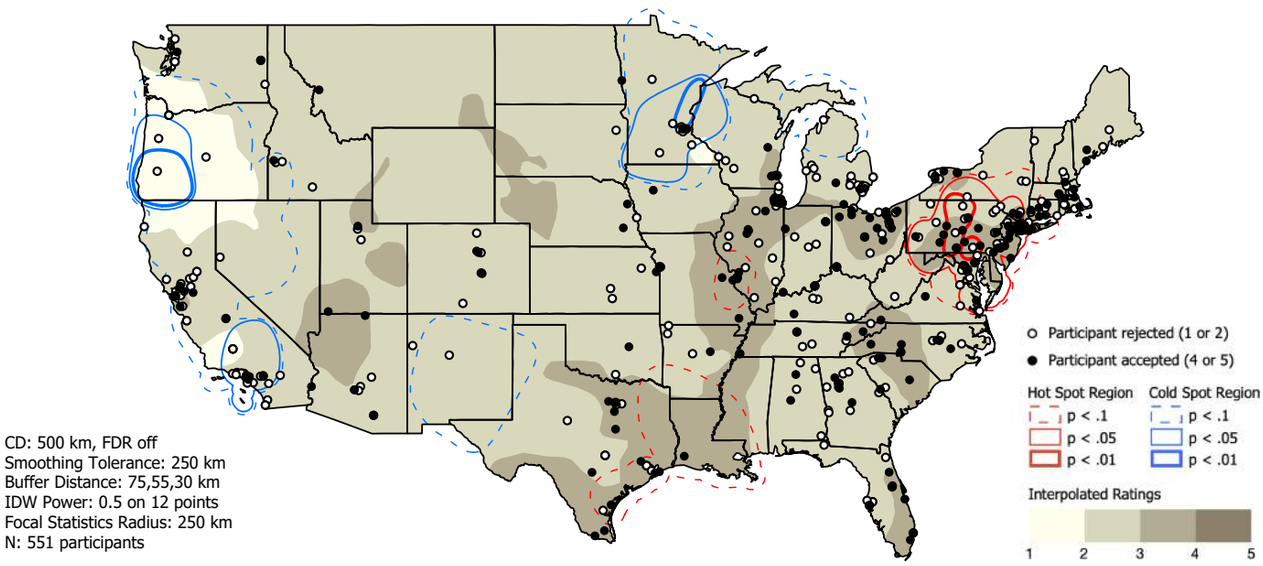


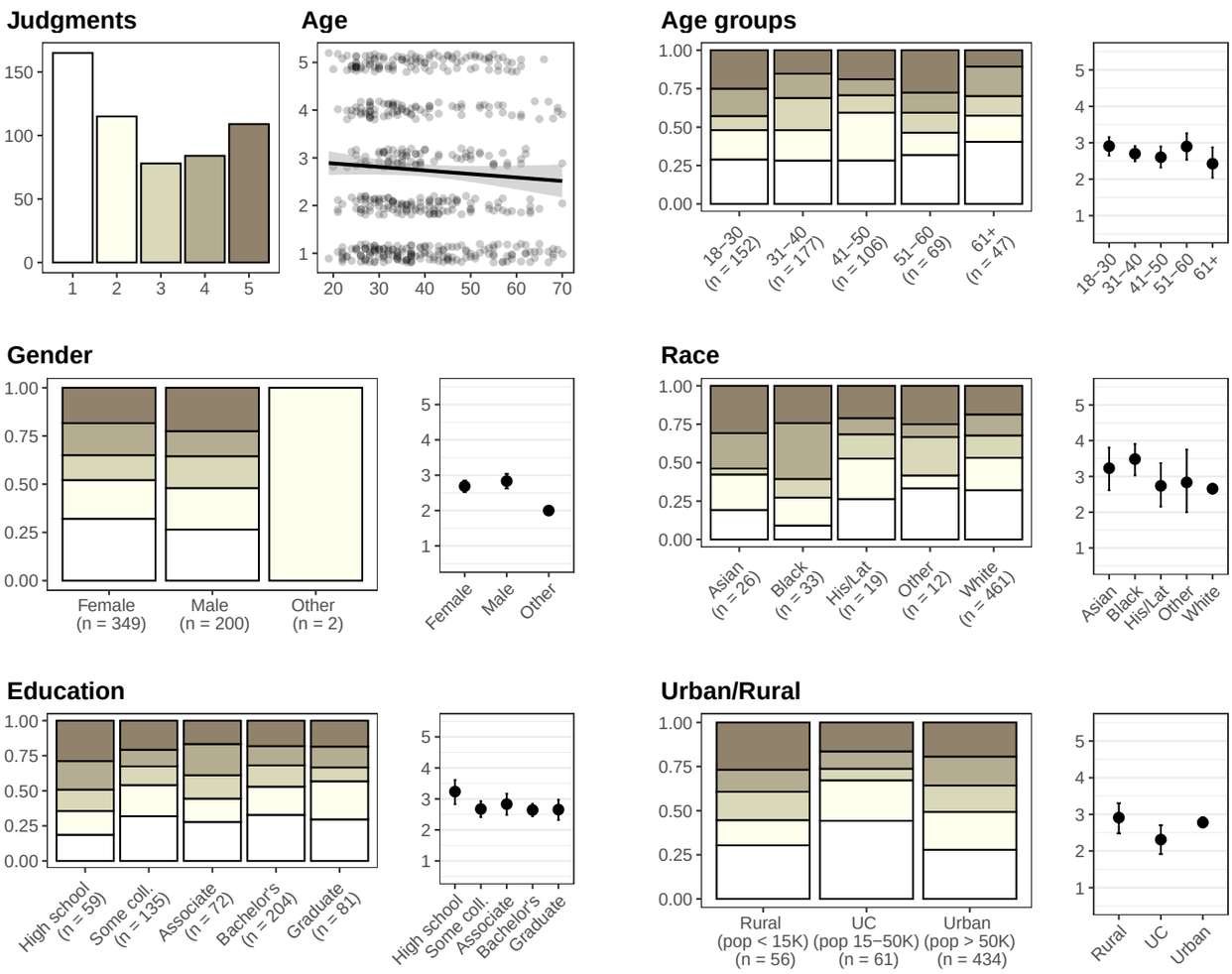
Urban/Rural



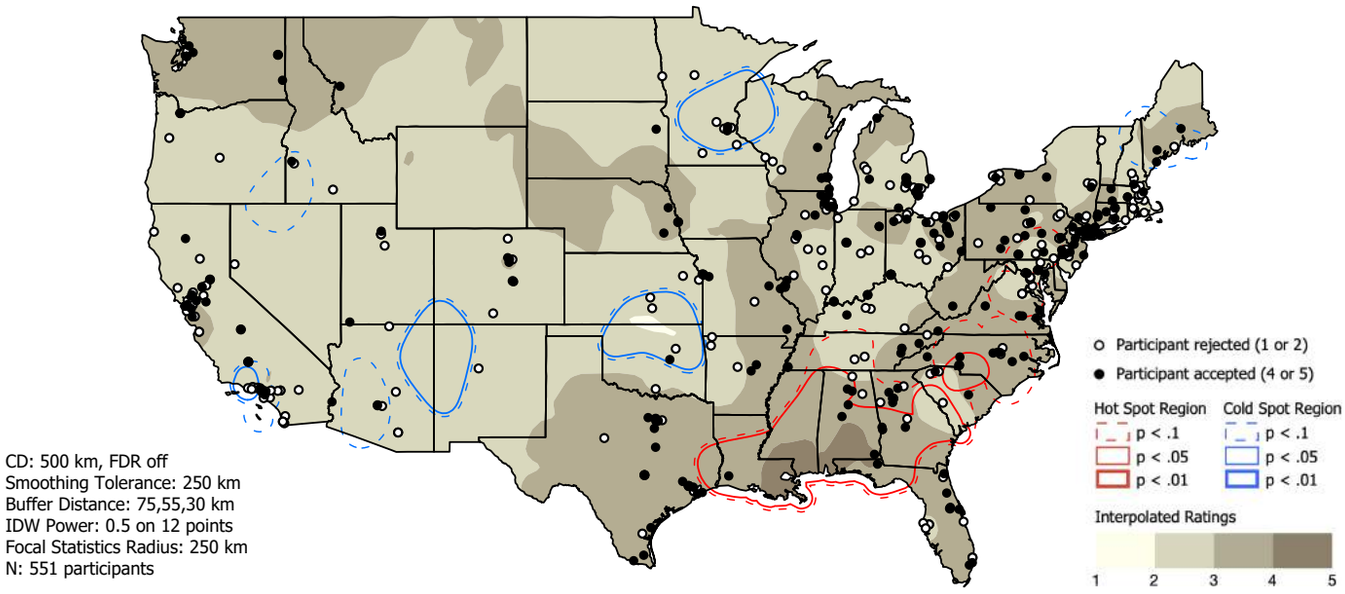
6.2.3 *Rathered* + Participle Form

F1240: "I would have rathered gone to a small school."



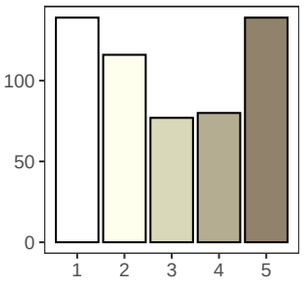


F1241: "I would have rathered slept on the couch."

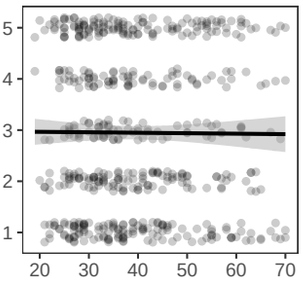


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

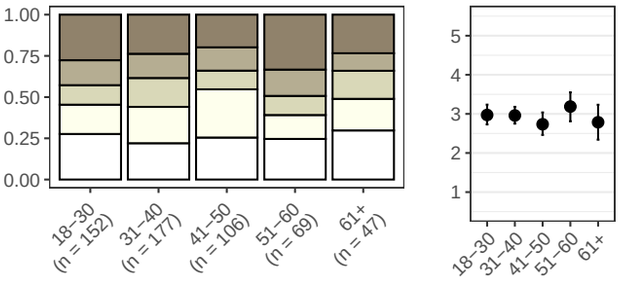
Judgments



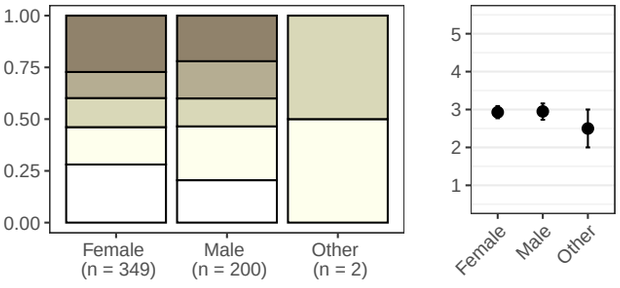
Age



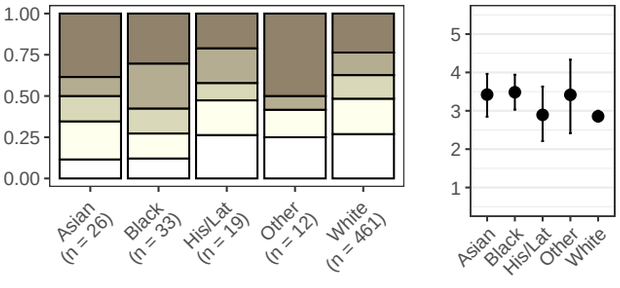
Age groups



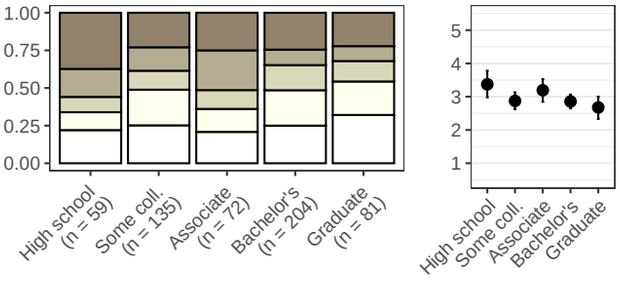
Gender



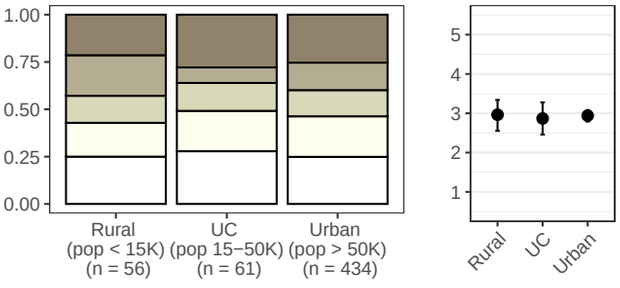
Race



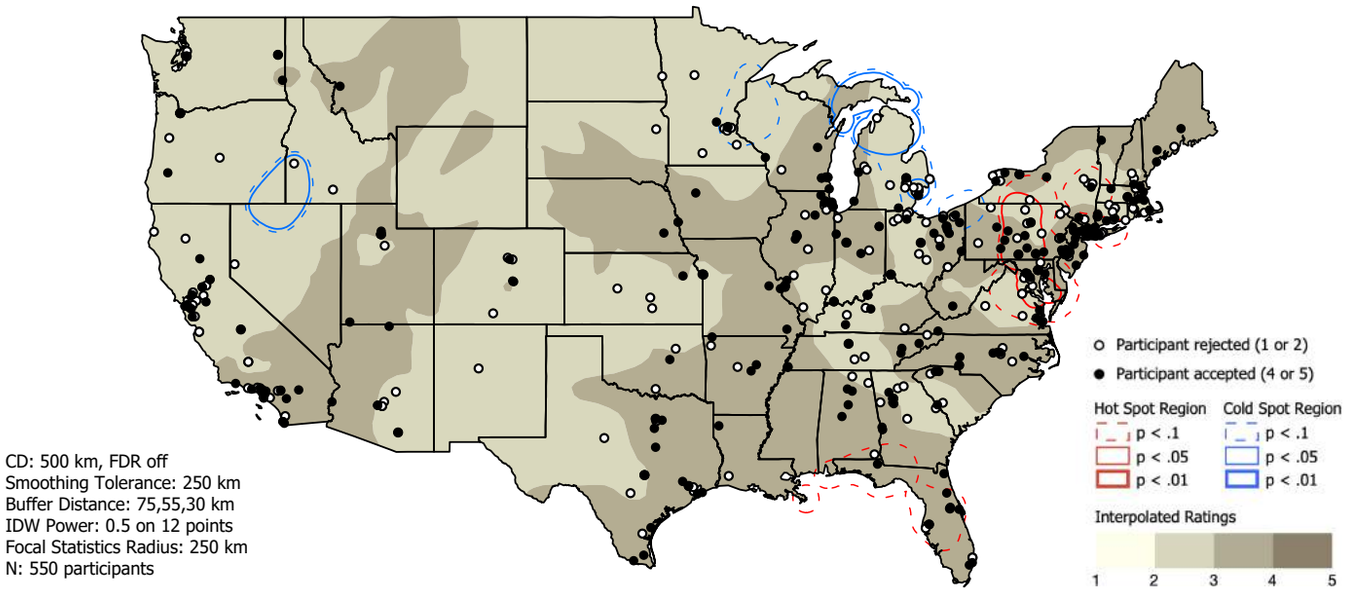
Education



Urban/Rural

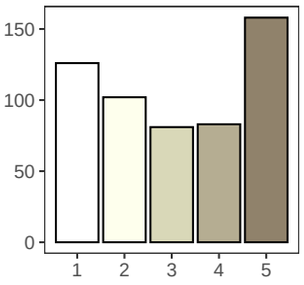


F1242: "We would have rathered stayed in bed."

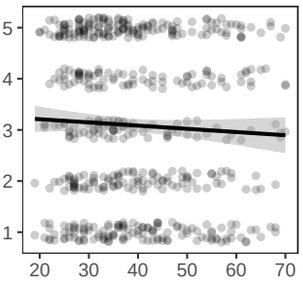


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

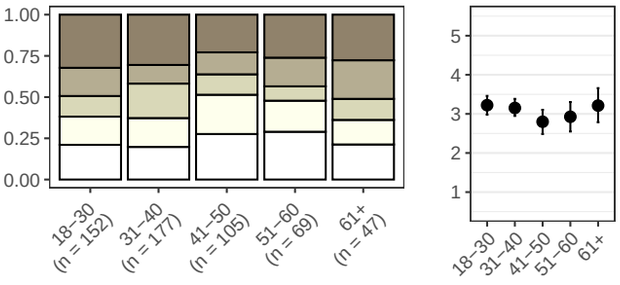
Judgments



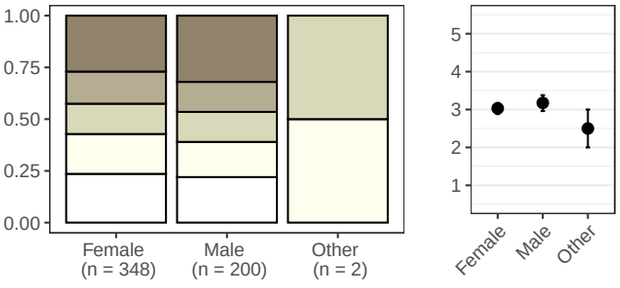
Age



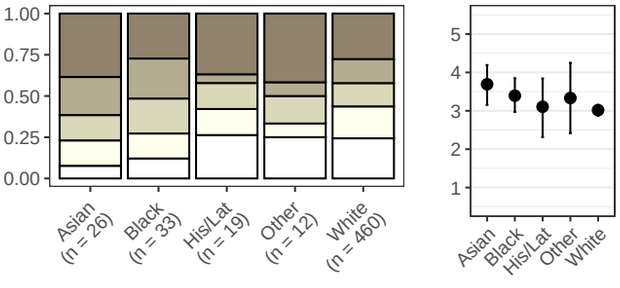
Age groups



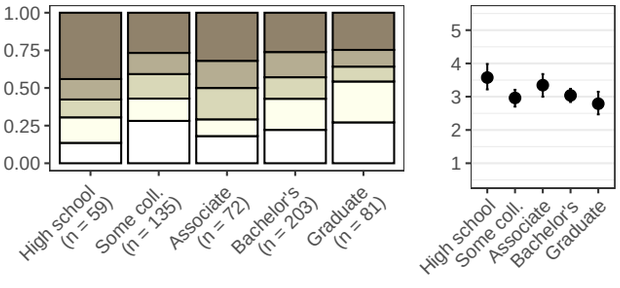
Gender



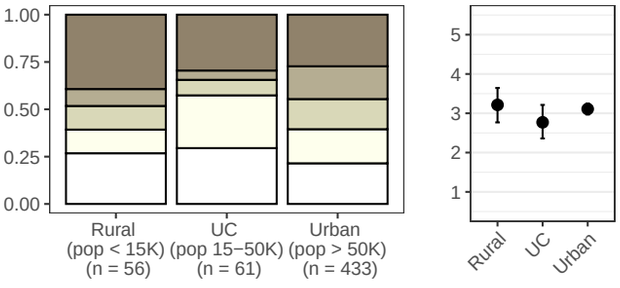
Race



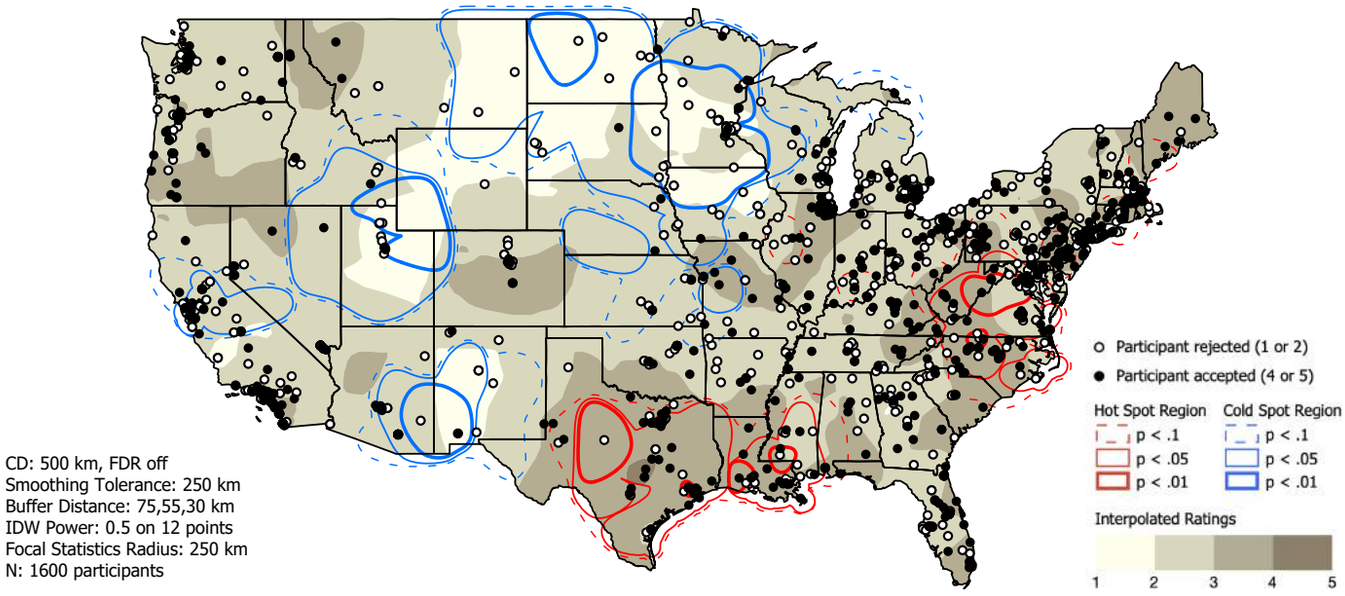
Education



Urban/Rural

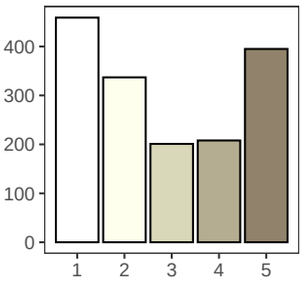


F1047: "I would've rathered gone to a small school."

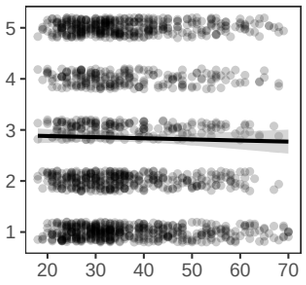


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1600 participants

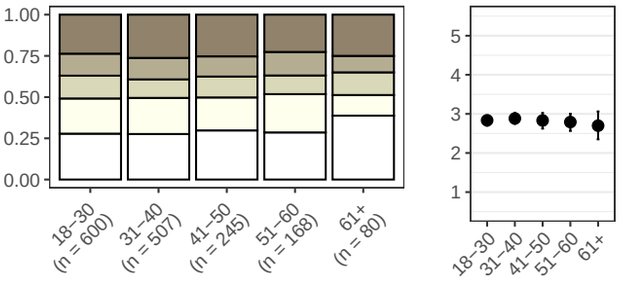
Judgments



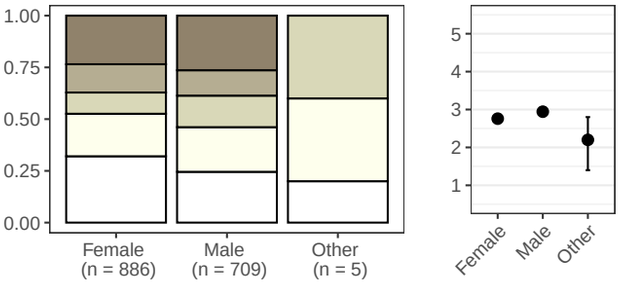
Age



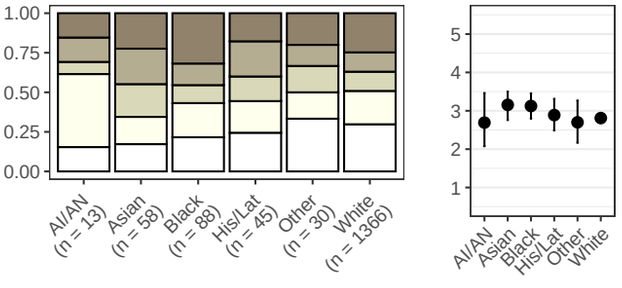
Age groups



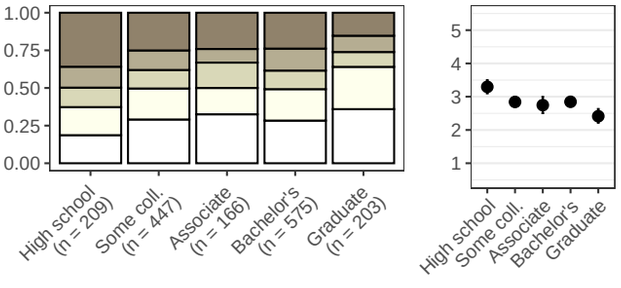
Gender



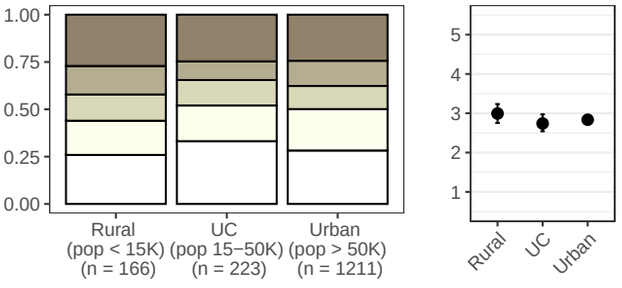
Race



Education

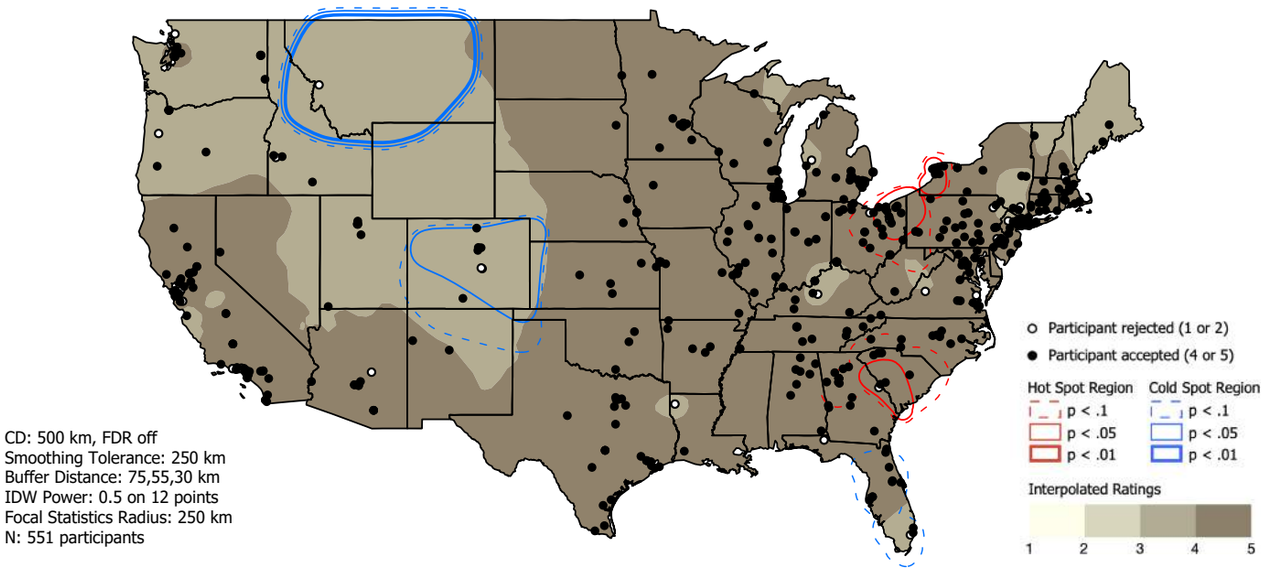


Urban/Rural

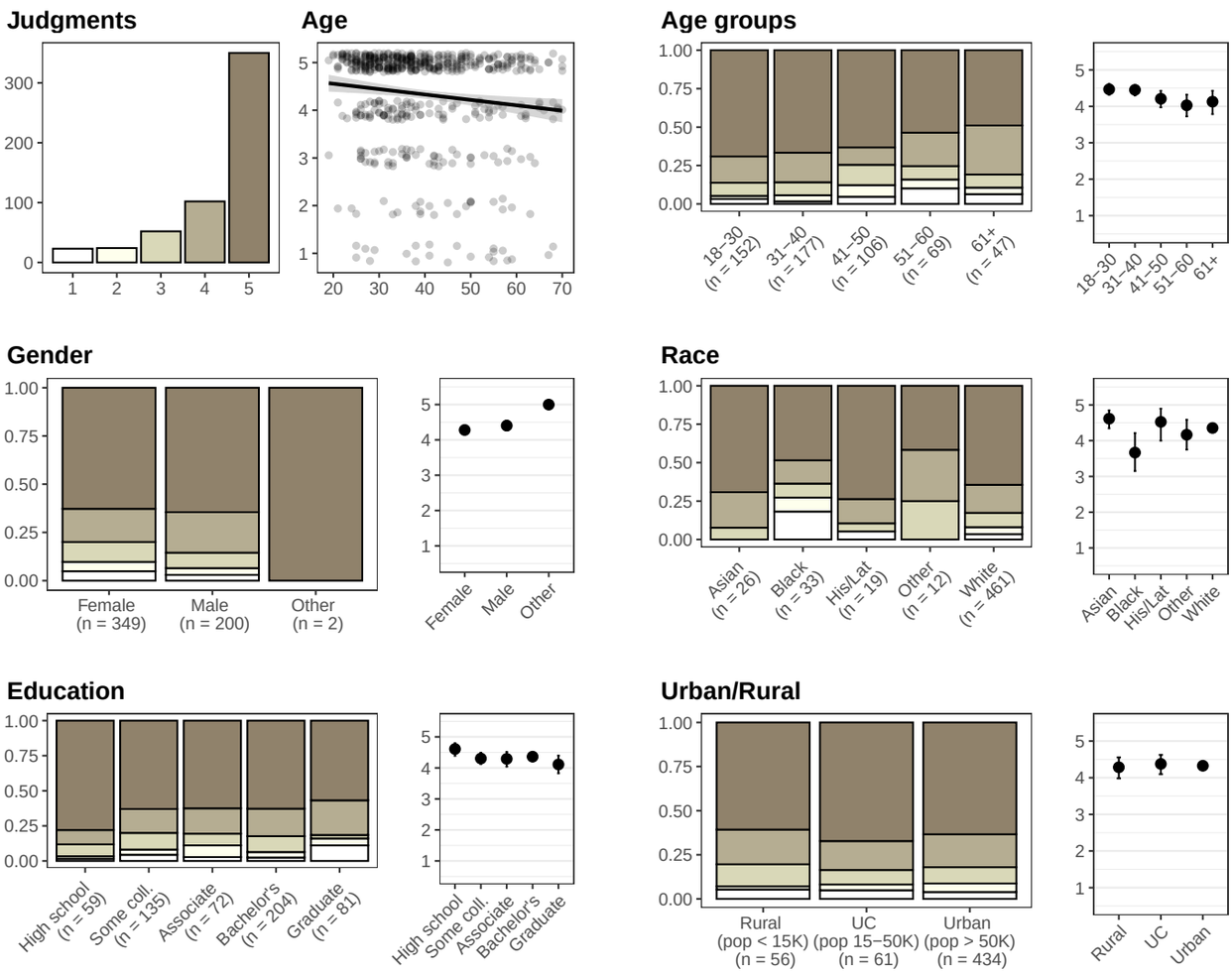


6.2.4 *Rather* + Participle Form

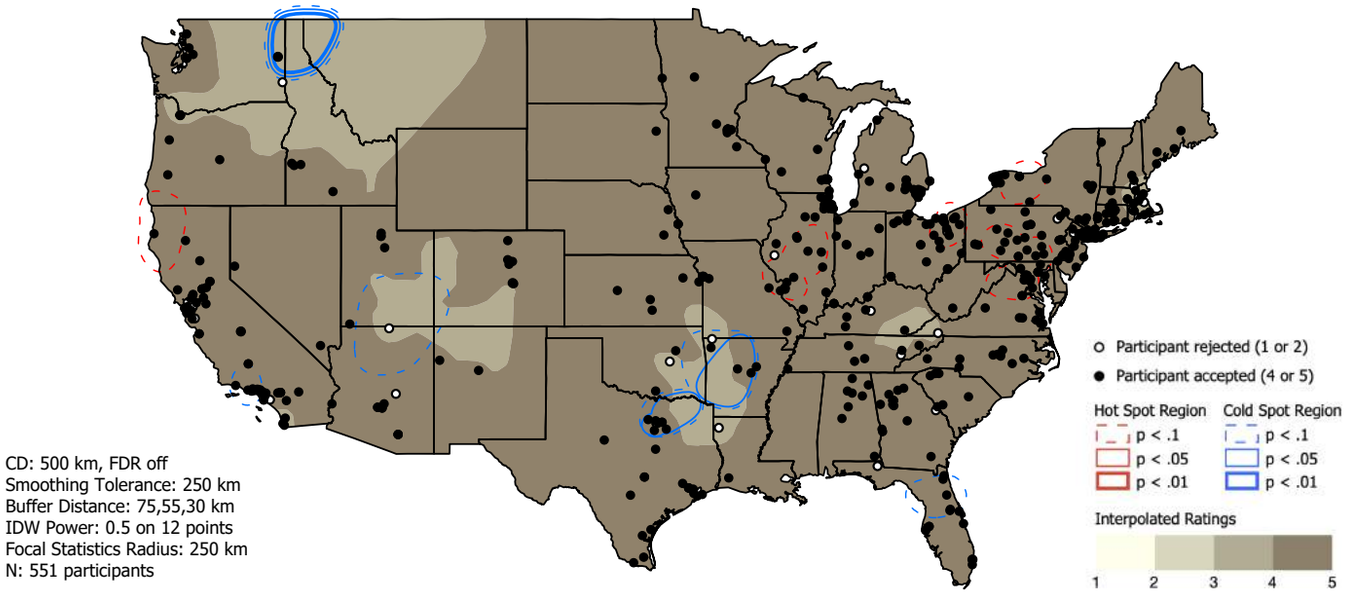
F1276: "I would have rather gone to a small school."



CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

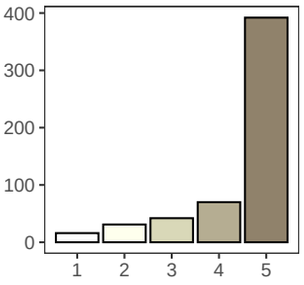


F1277: "I would have rather slept on the couch."

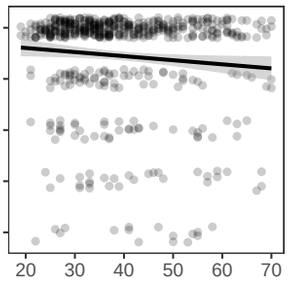


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

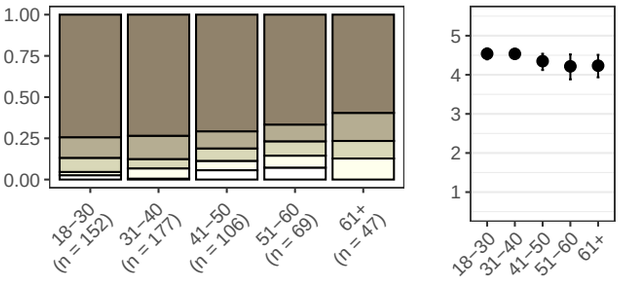
Judgments



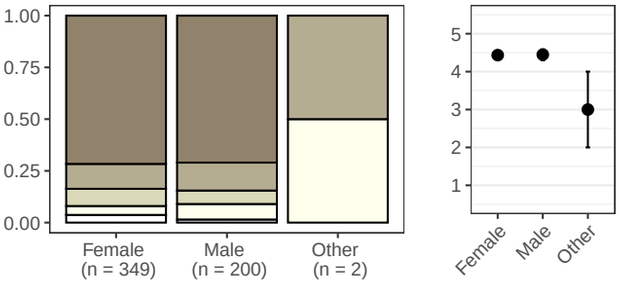
Age



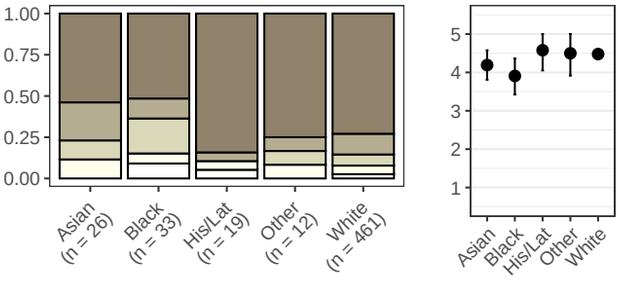
Age groups



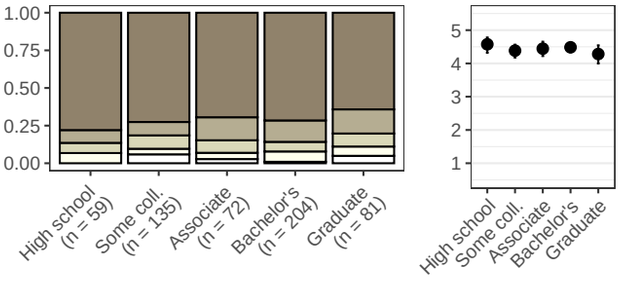
Gender



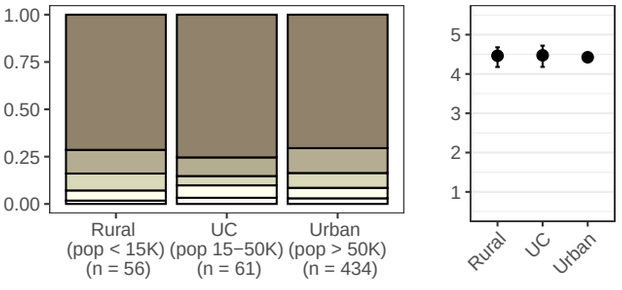
Race



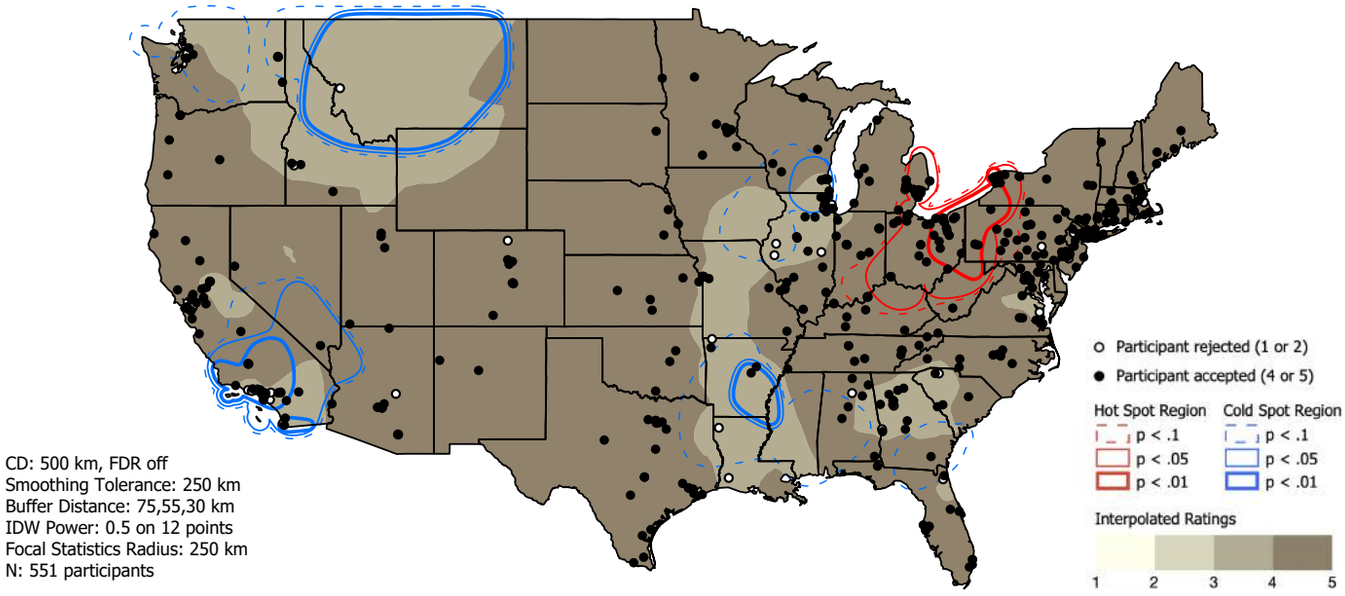
Education



Urban/Rural

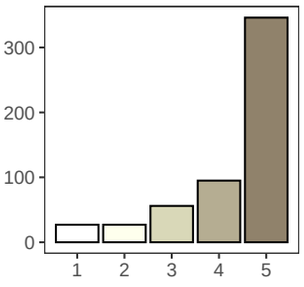


F1278: "We would have rather stayed in bed."

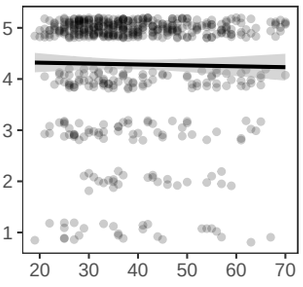


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

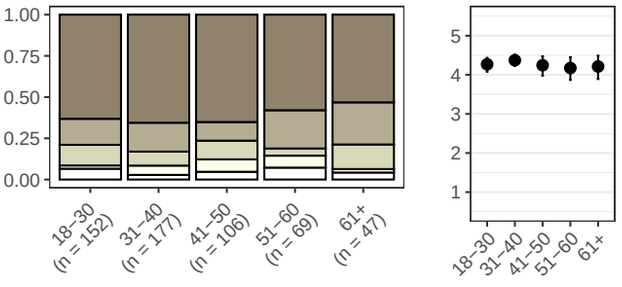
Judgments



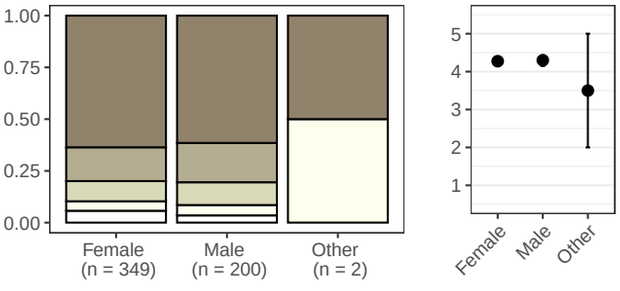
Age



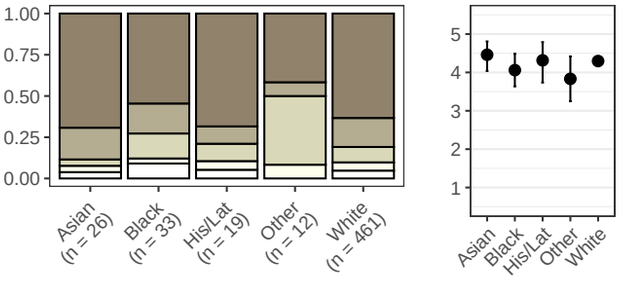
Age groups



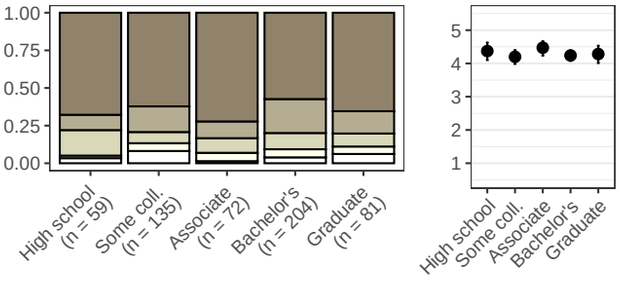
Gender



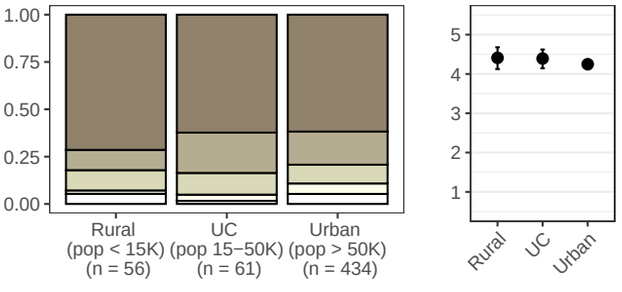
Race



Education



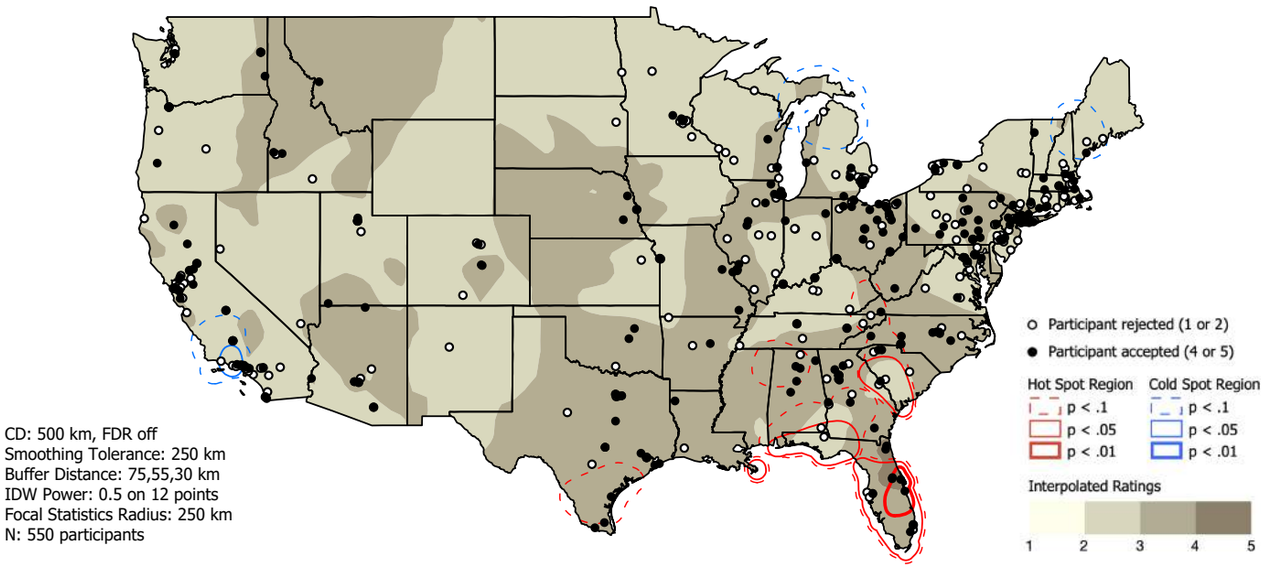
Urban/Rural

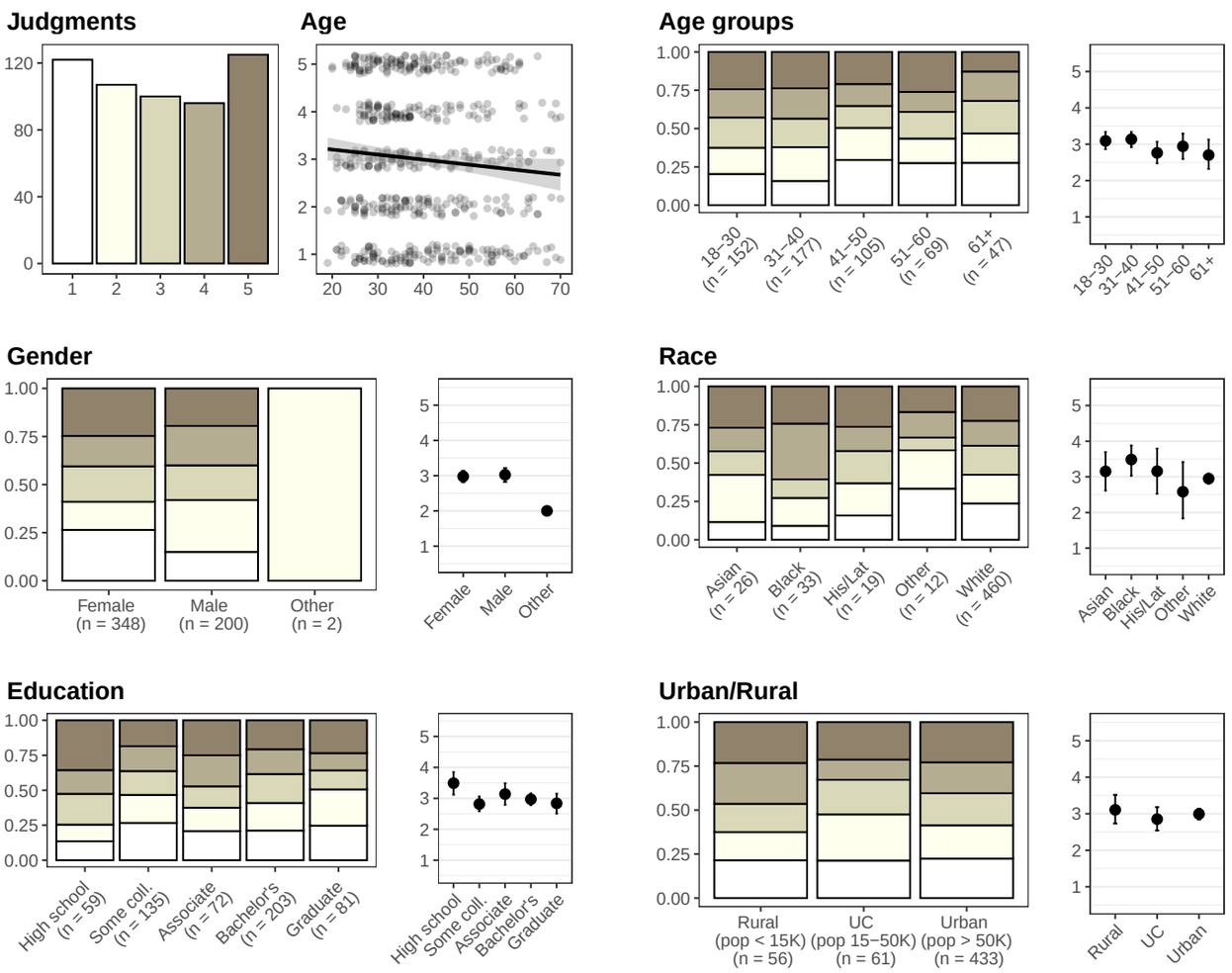


6.3 Embedded Subject

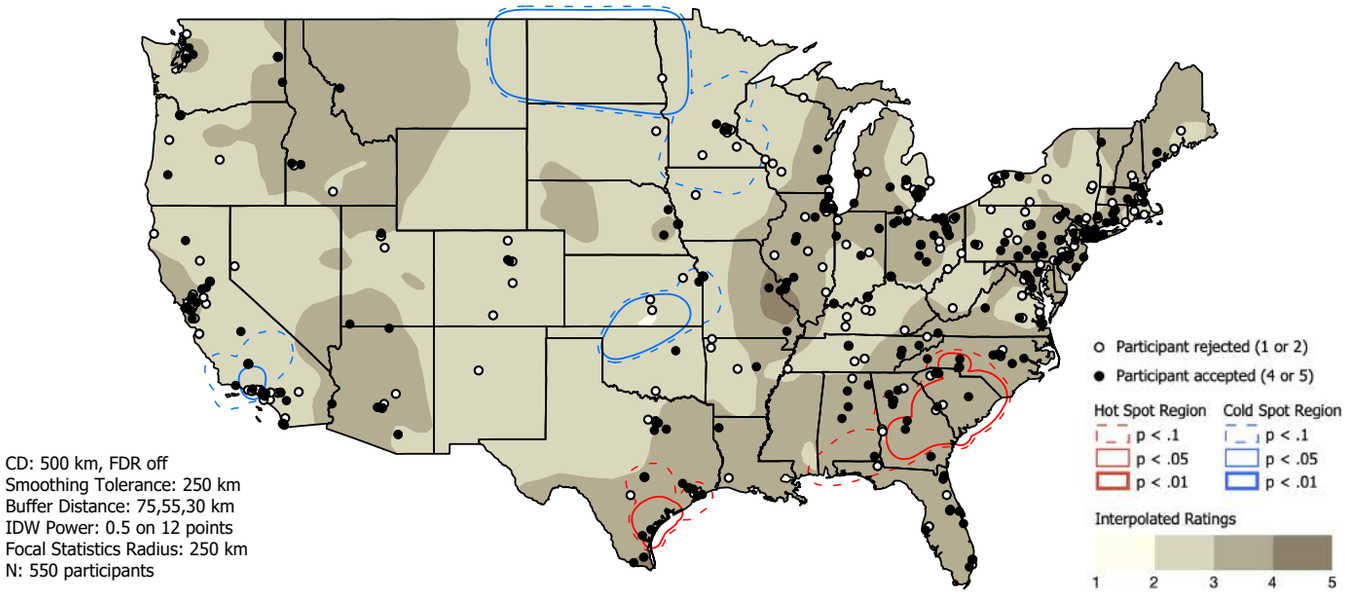
6.3.1 *Rathered* + Infinitive Form

F1249: "I would have rathered him go to a small school."



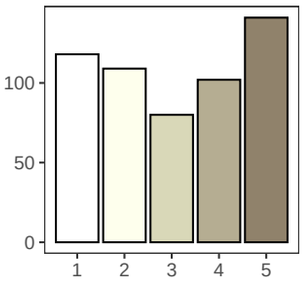


F1250: "I would have rathered him sleep on the couch."

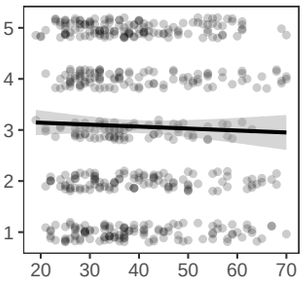


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

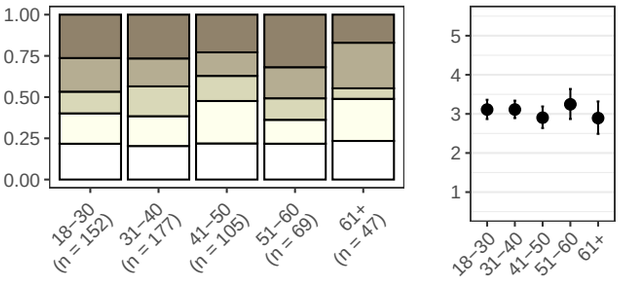
Judgments



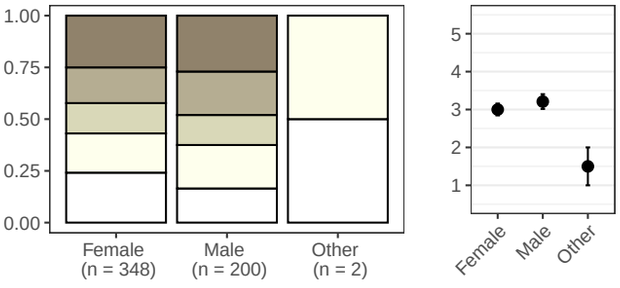
Age



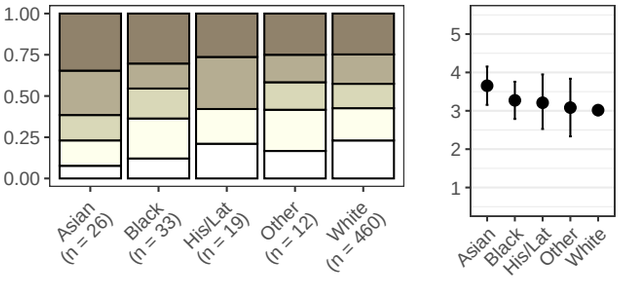
Age groups



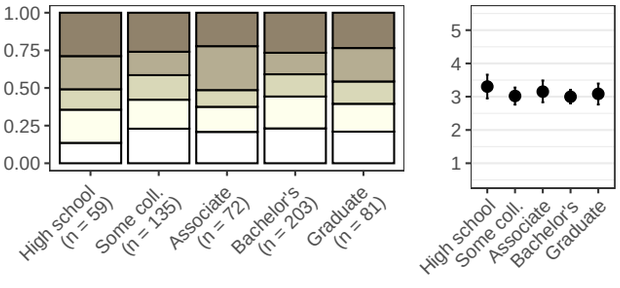
Gender



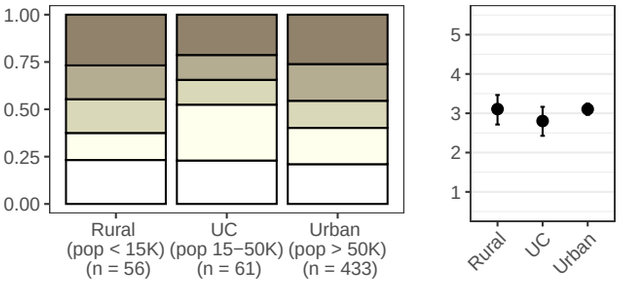
Race



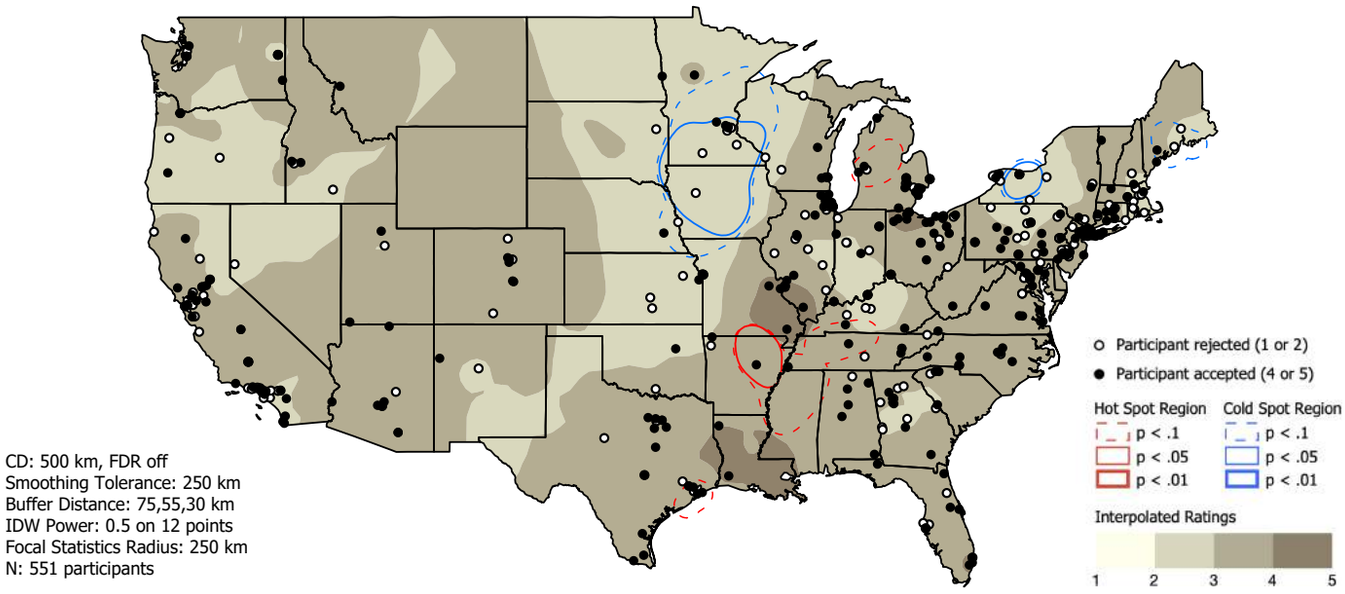
Education



Urban/Rural

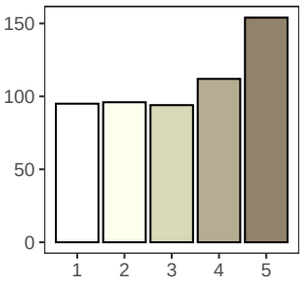


F1251: "We would have rathered him stay in bed."

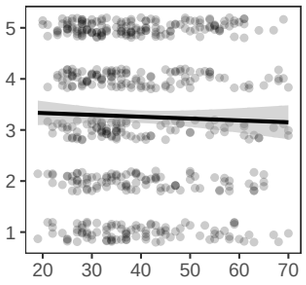


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

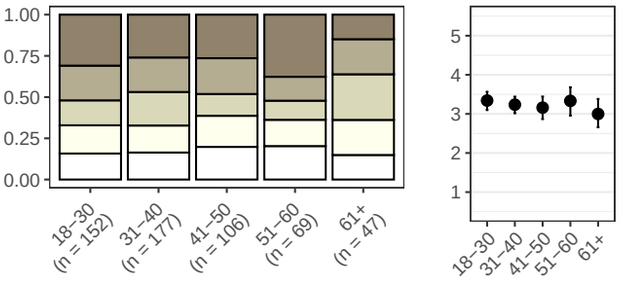
Judgments



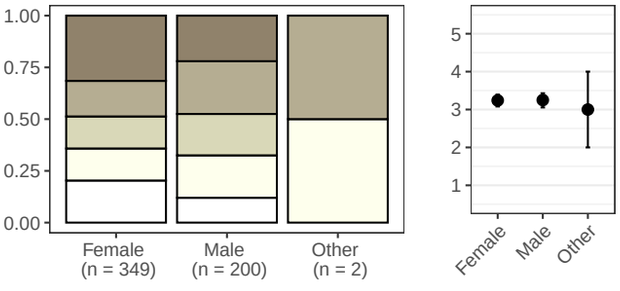
Age



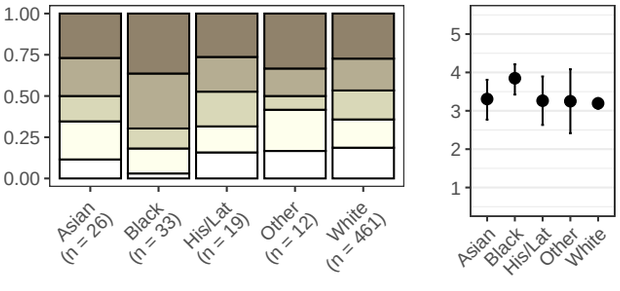
Age groups



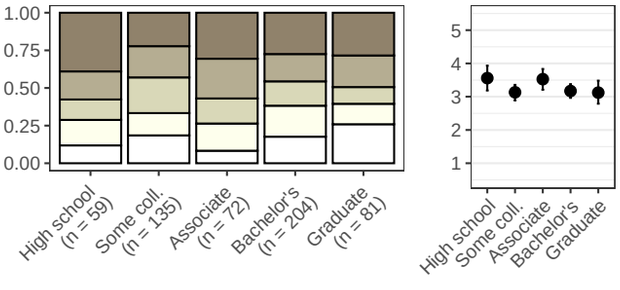
Gender



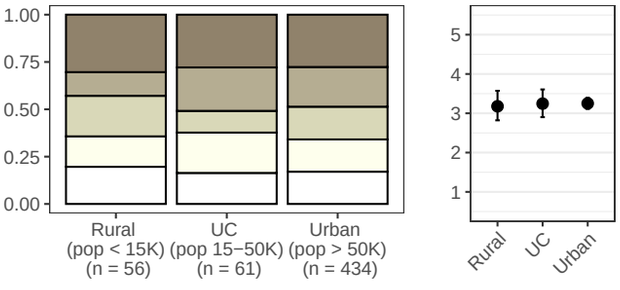
Race



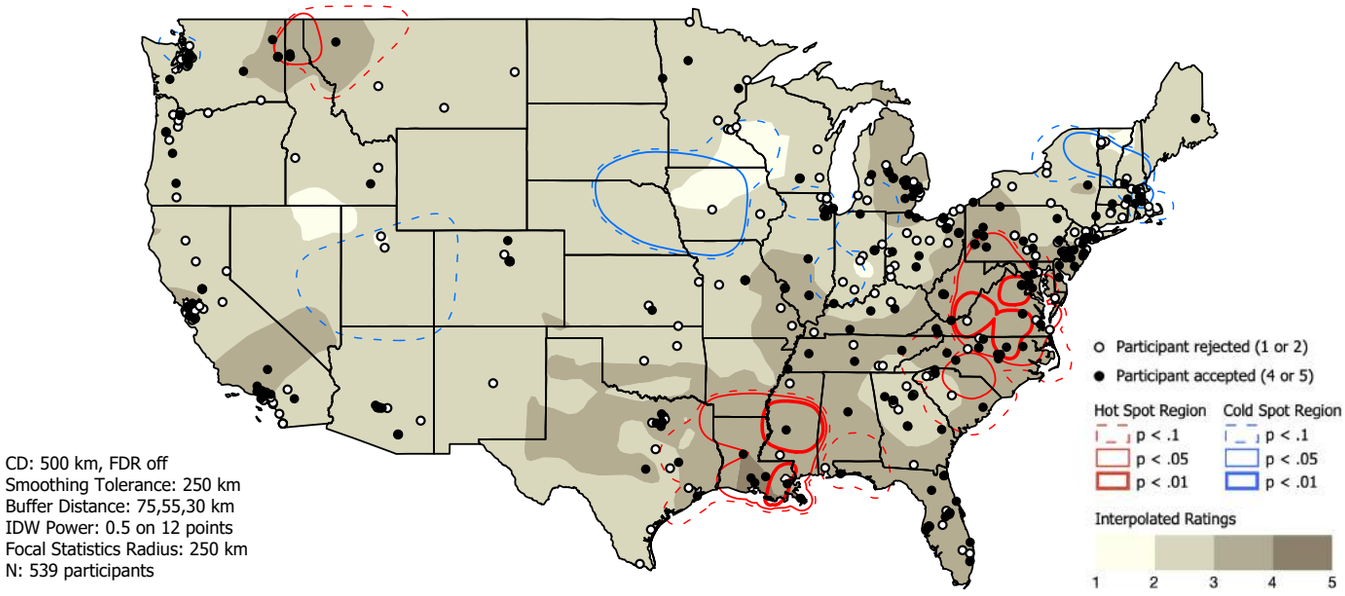
Education



Urban/Rural

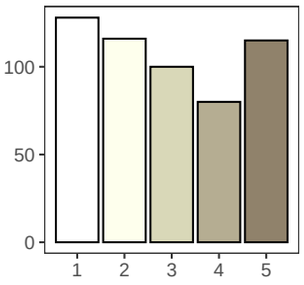


F1029: "I would've rathered him go to a small school."

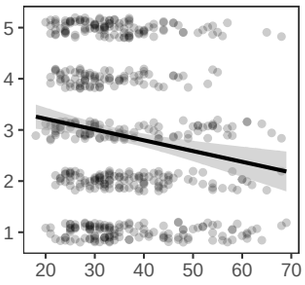


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

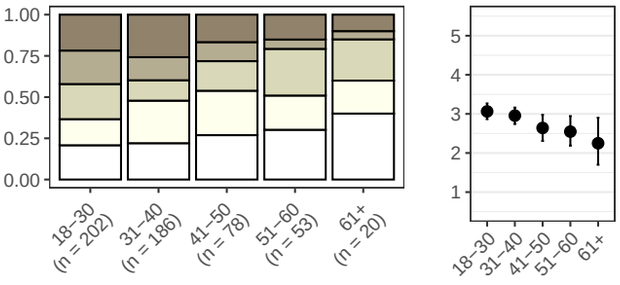
Judgments



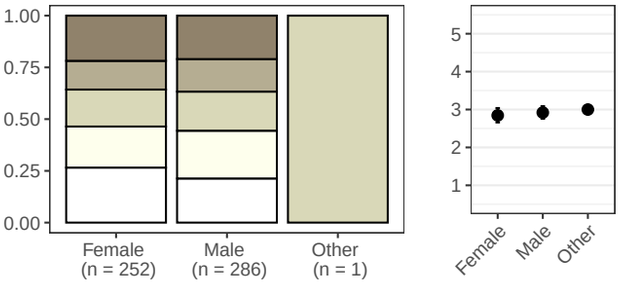
Age



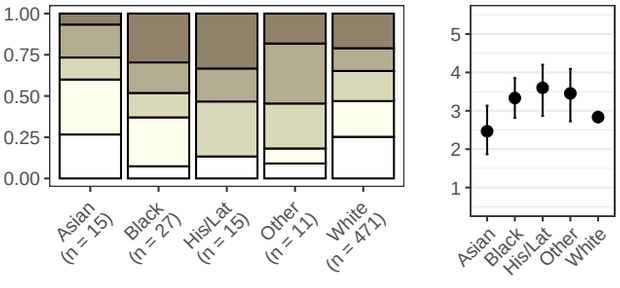
Age groups



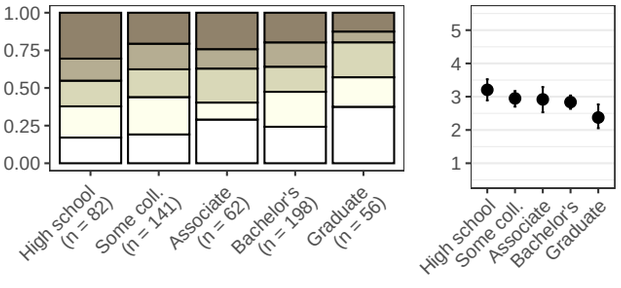
Gender



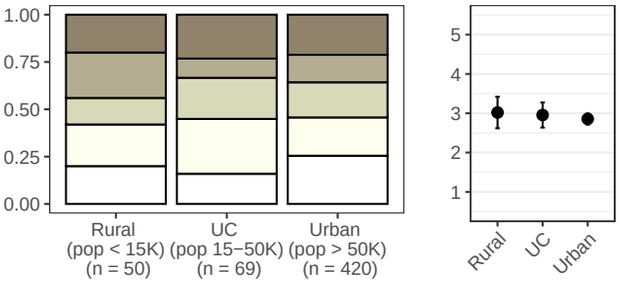
Race



Education

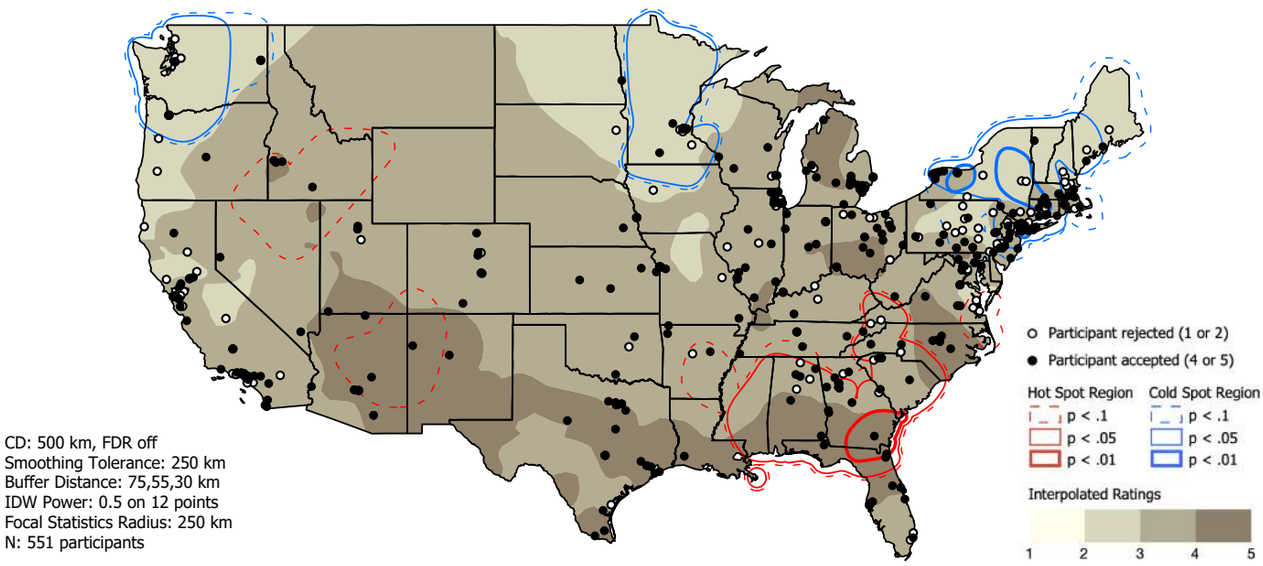


Urban/Rural

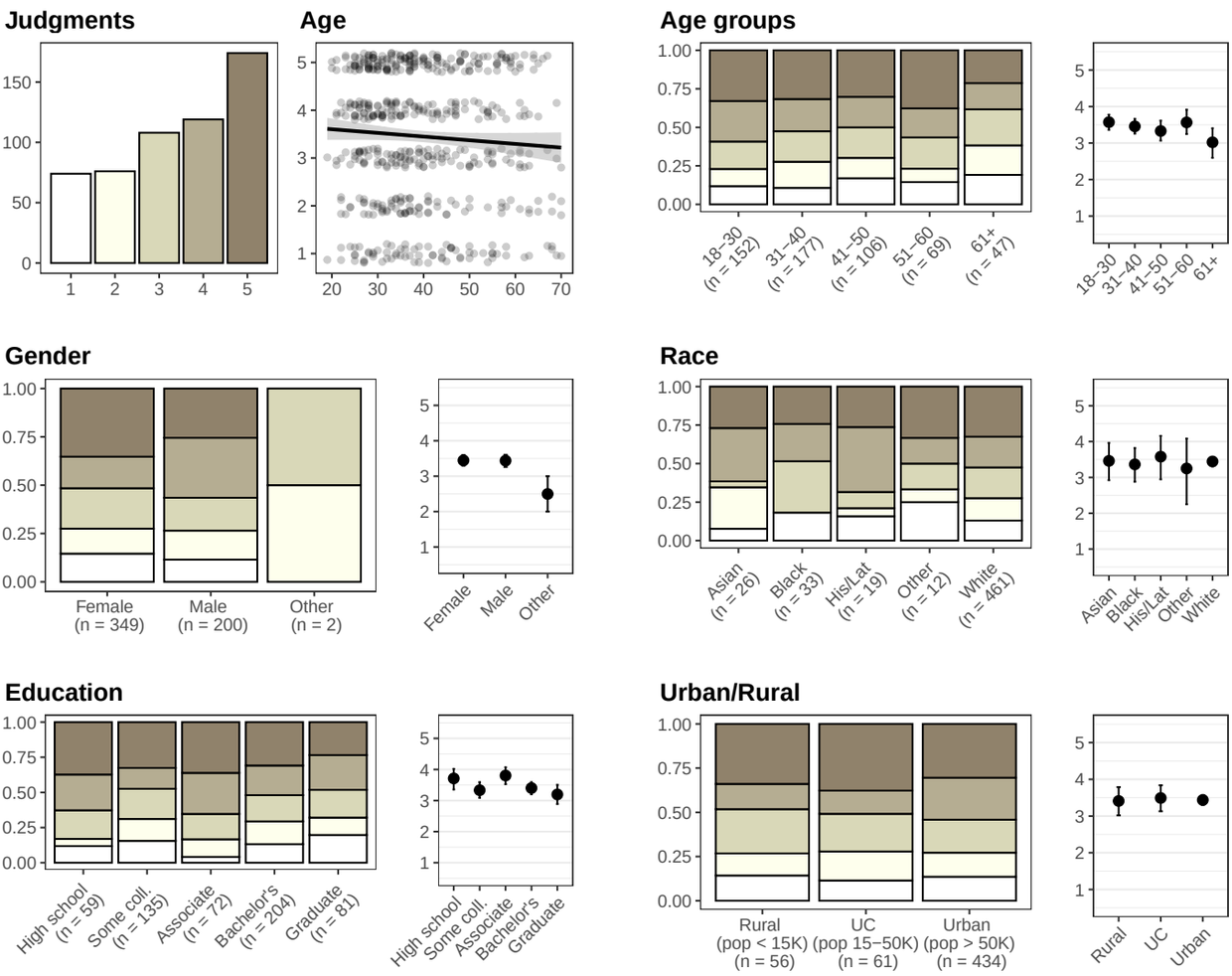


6.3.2 *Rather*+Infinitive Form

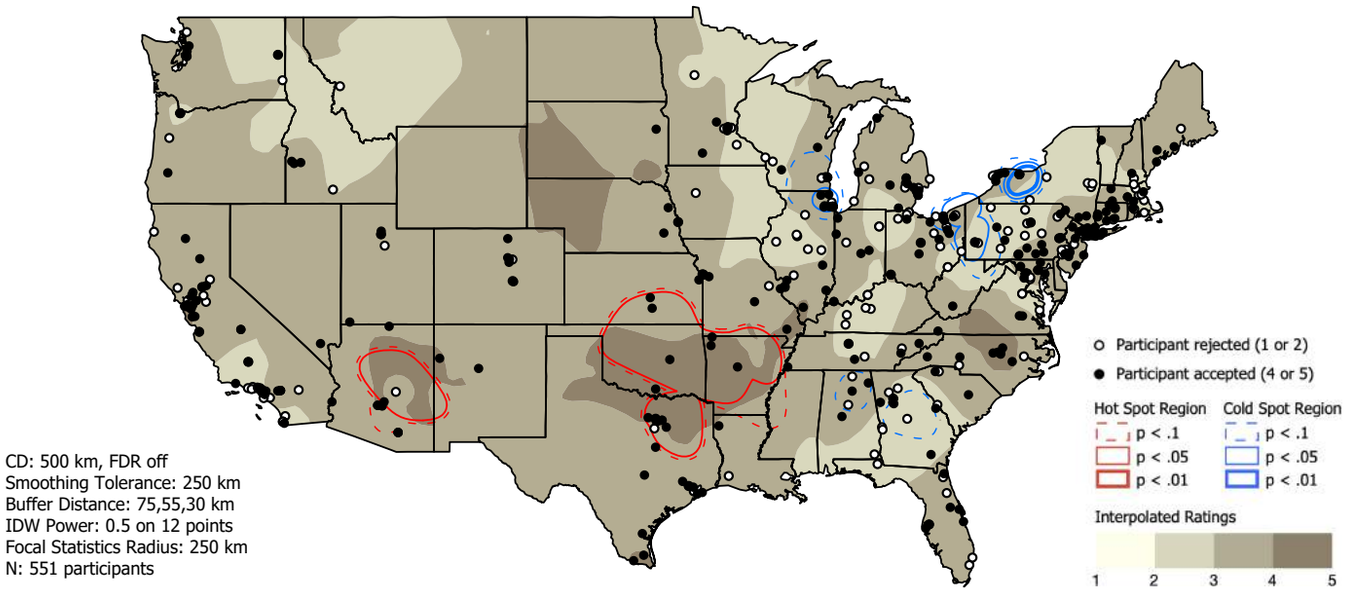
F1285: "I would have rather him go to a small school."



CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

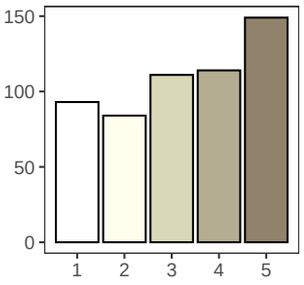


F1286: "I would have rather him sleep on the couch."

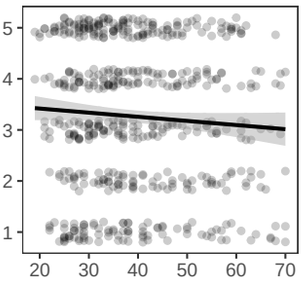


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

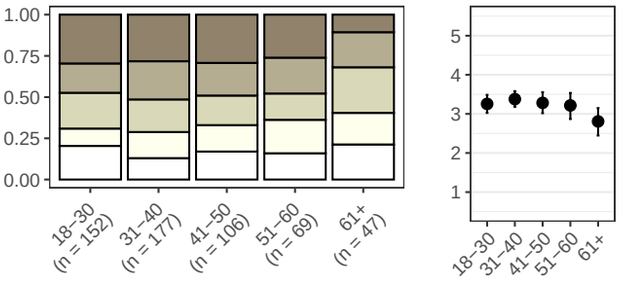
Judgments



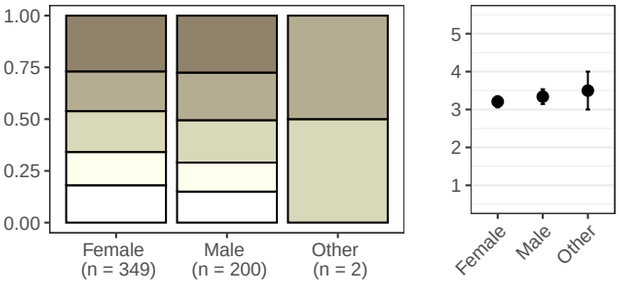
Age



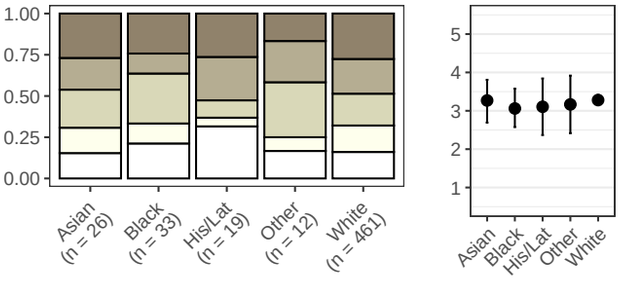
Age groups



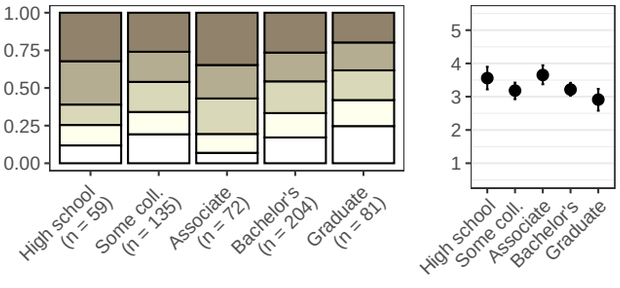
Gender



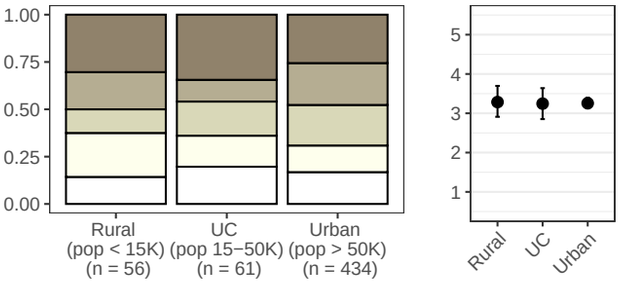
Race



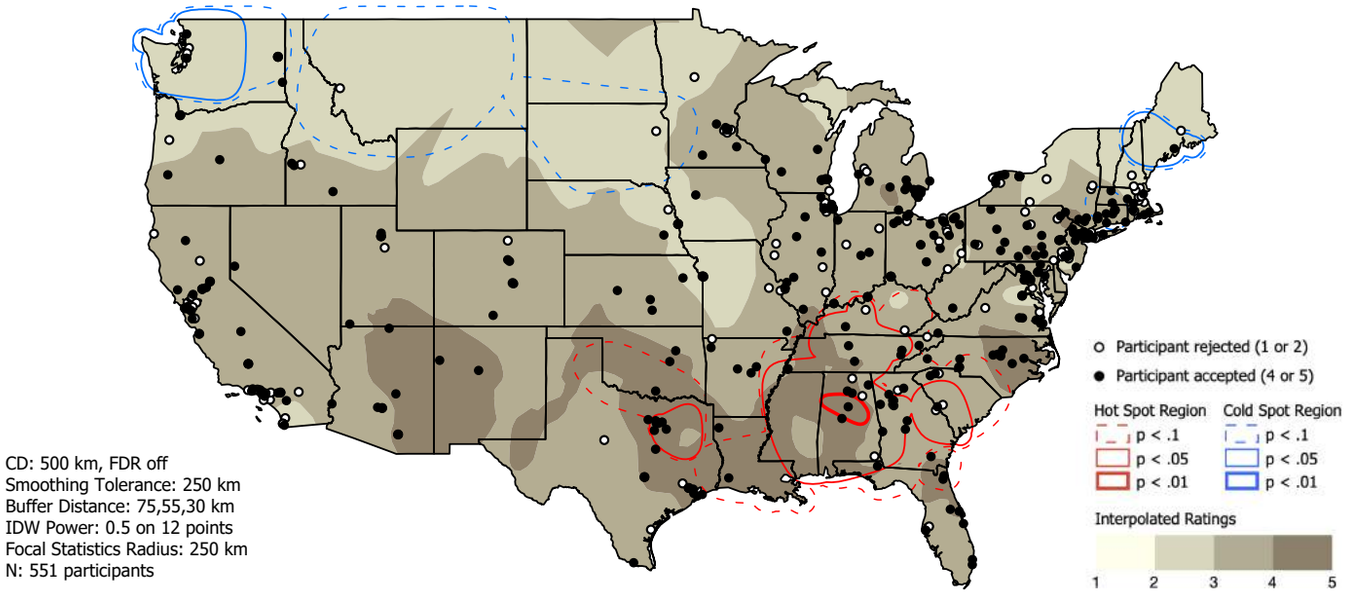
Education



Urban/Rural

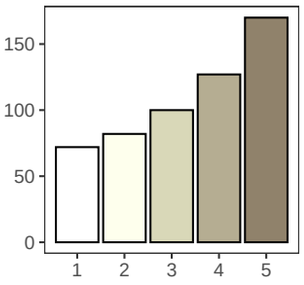


F1287: "We would have rather him stay in bed."

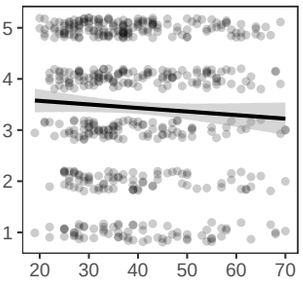


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

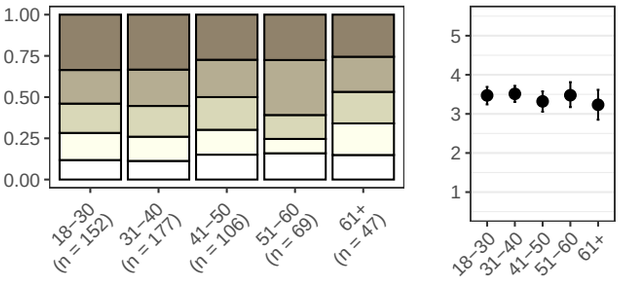
Judgments



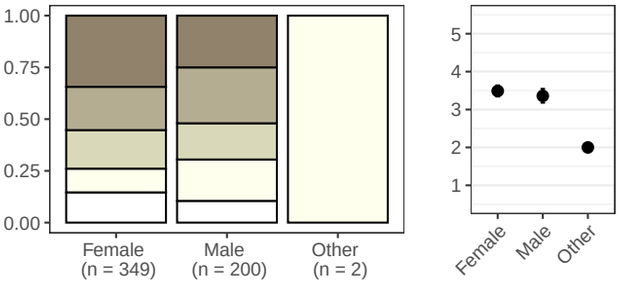
Age



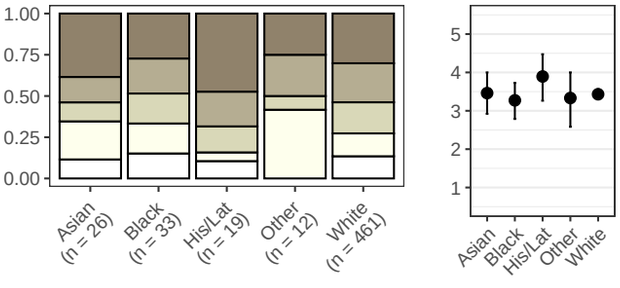
Age groups



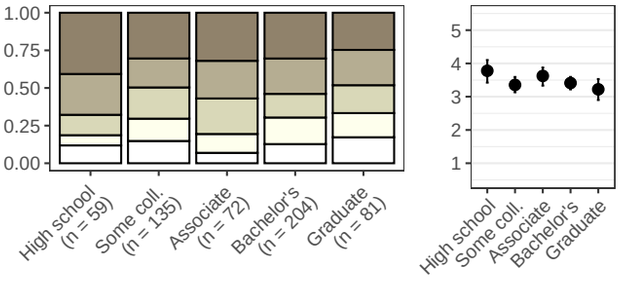
Gender



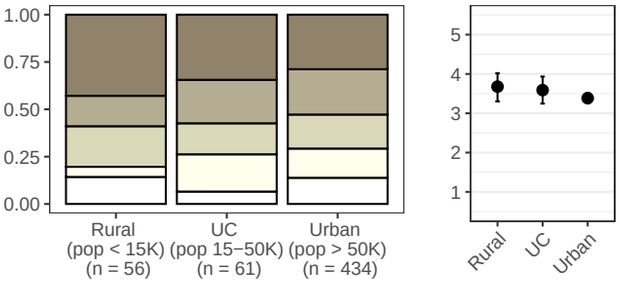
Race



Education

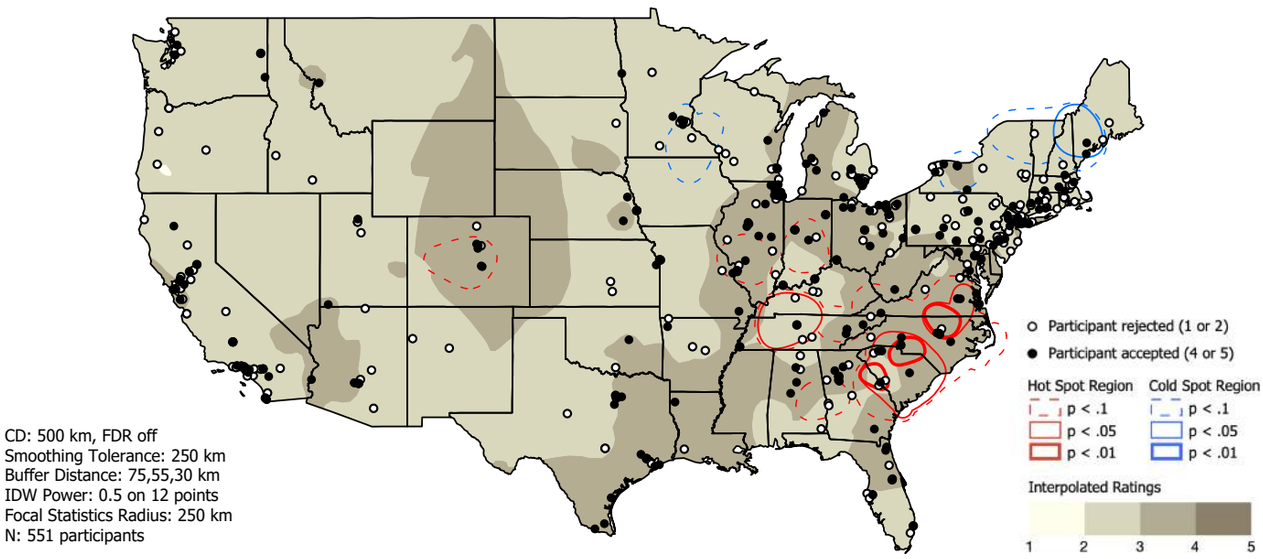


Urban/Rural

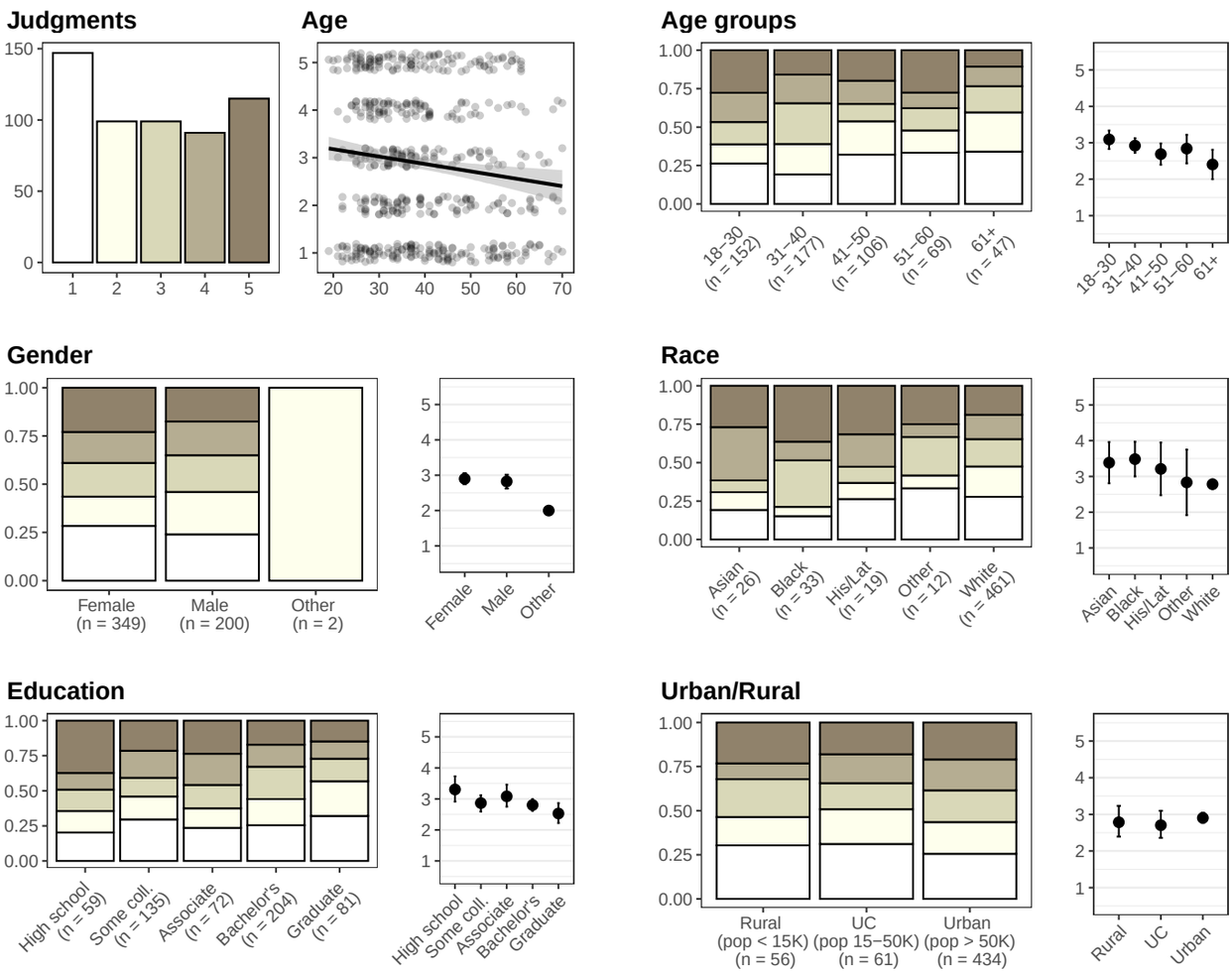


6.3.3 *Rathered* + Participle Form

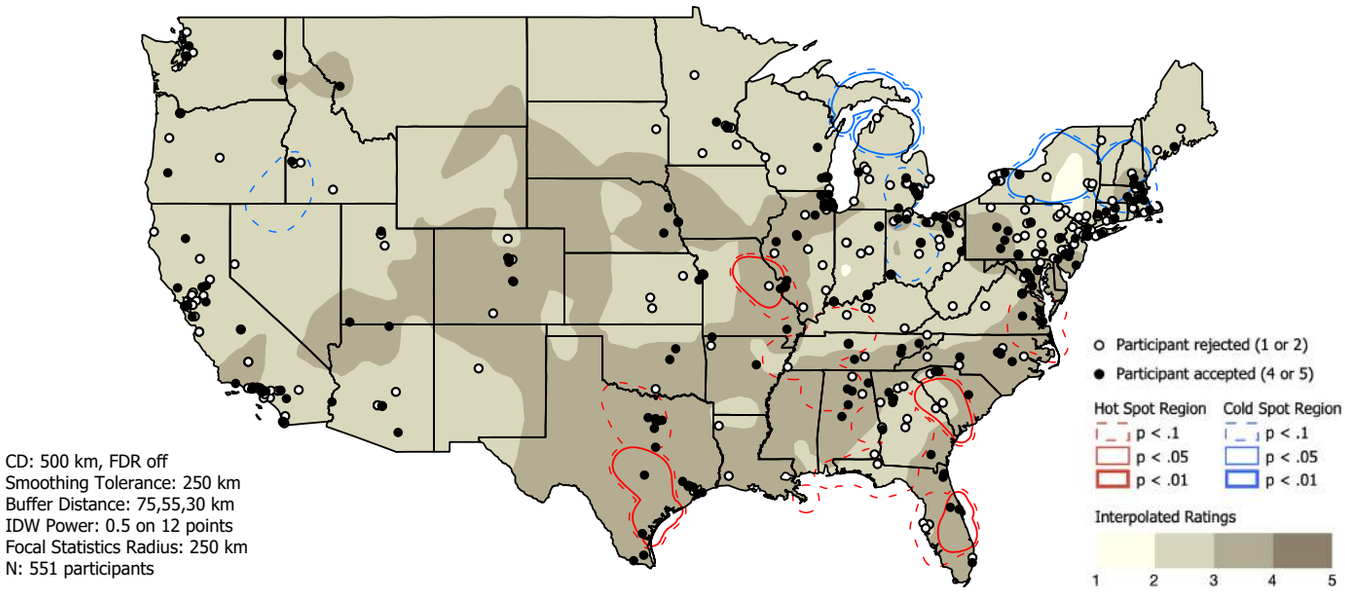
F1258: "I would have rathered him gone to a small school."



CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

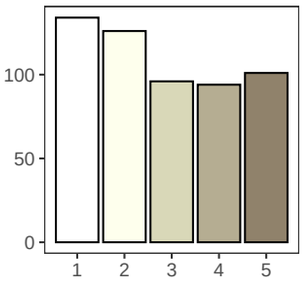


F1259: "I would have rathered him slept on the couch."

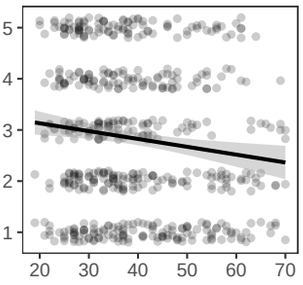


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

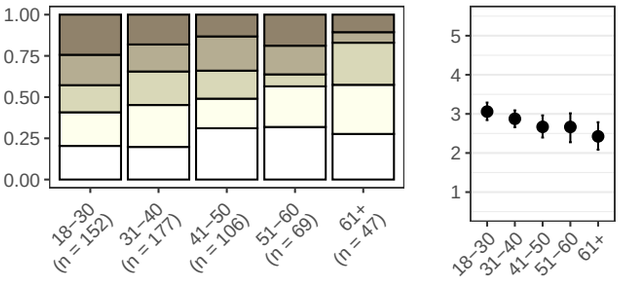
Judgments



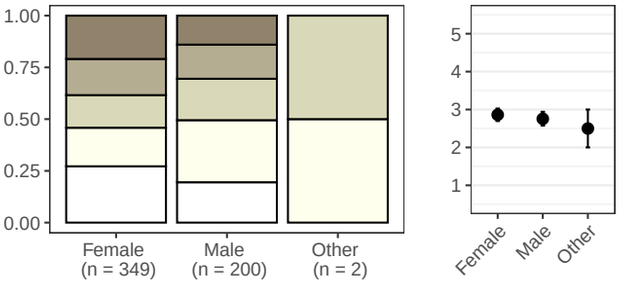
Age



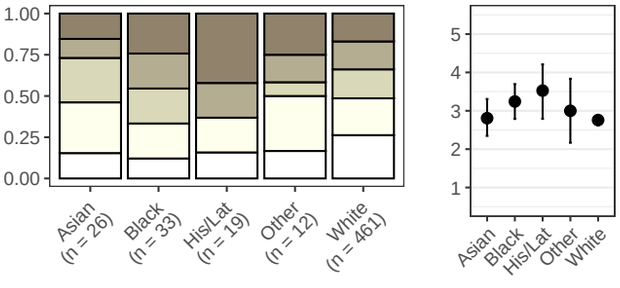
Age groups



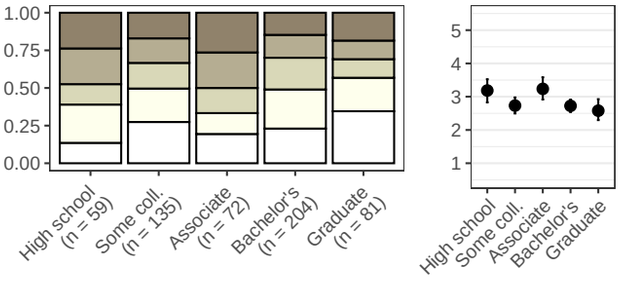
Gender



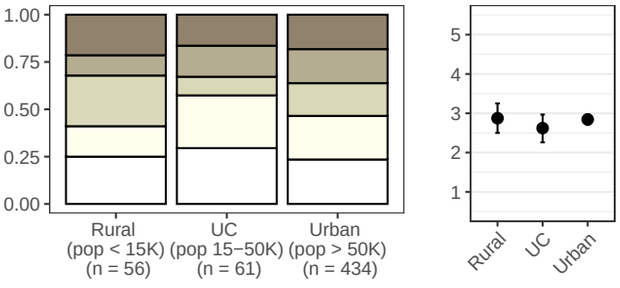
Race



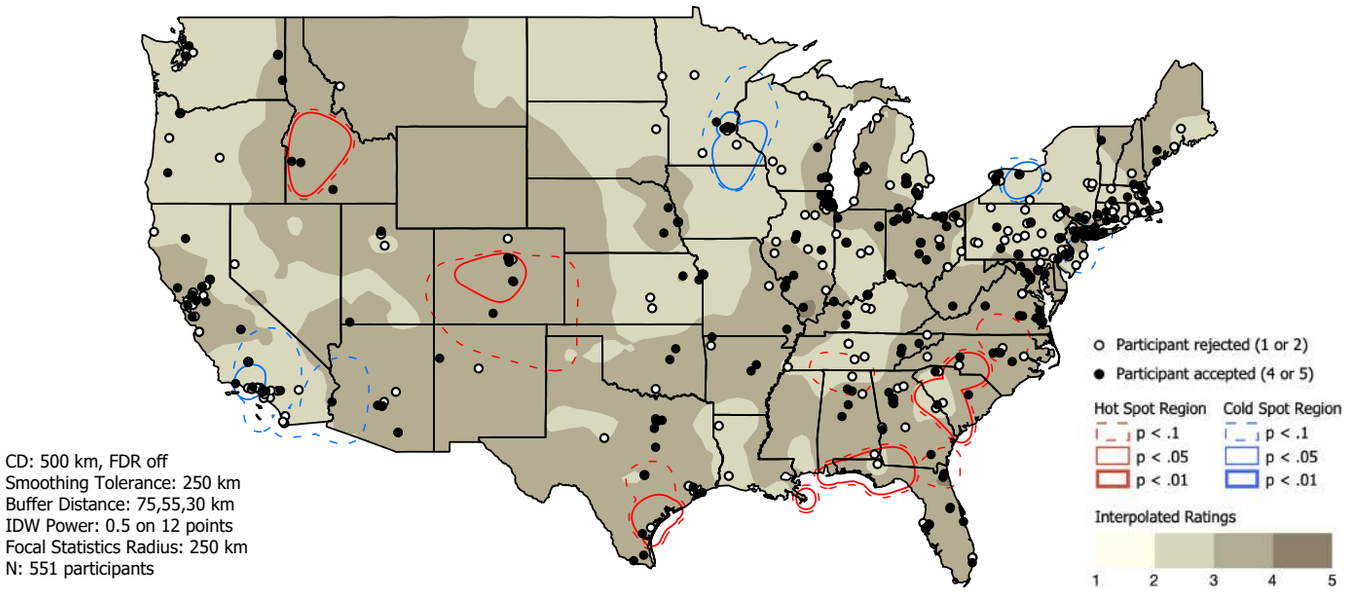
Education



Urban/Rural

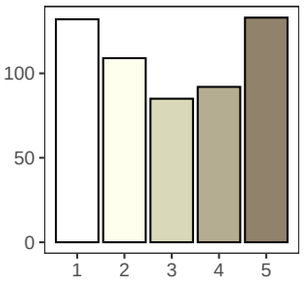


F1260: "We would have rathered him stayed in bed."

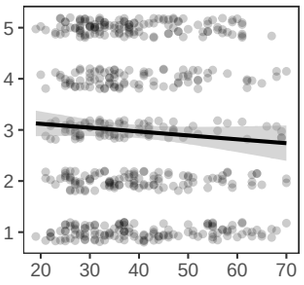


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

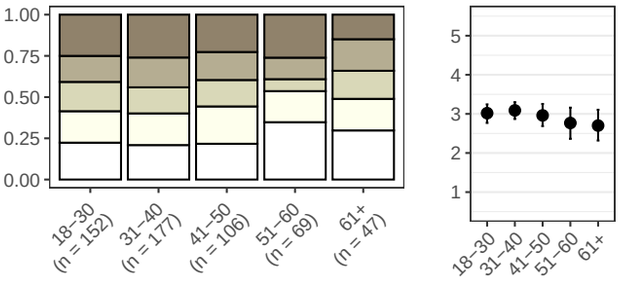
Judgments



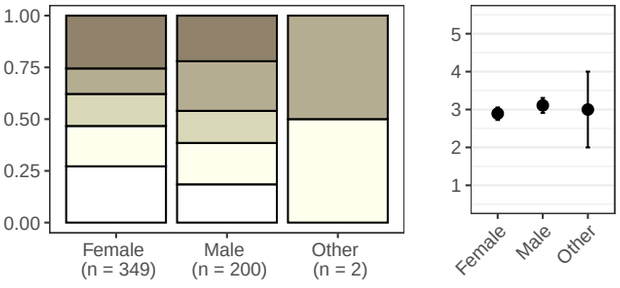
Age



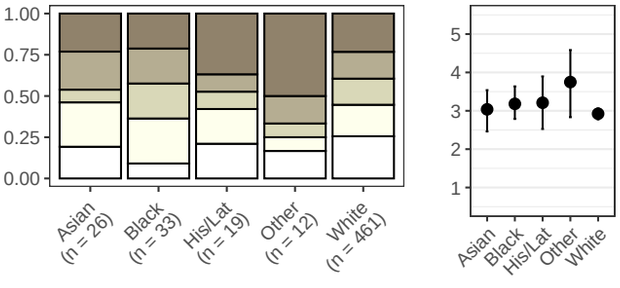
Age groups



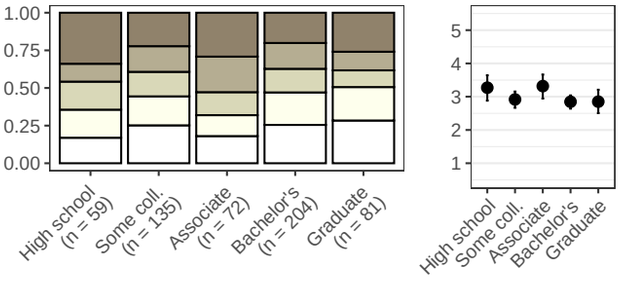
Gender



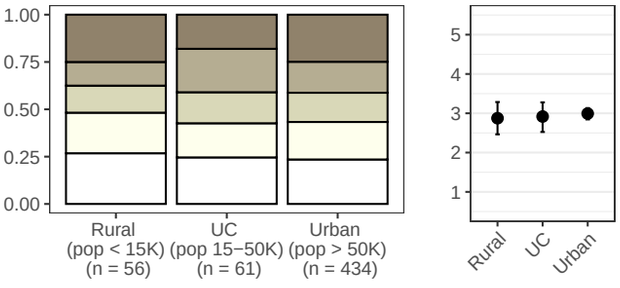
Race



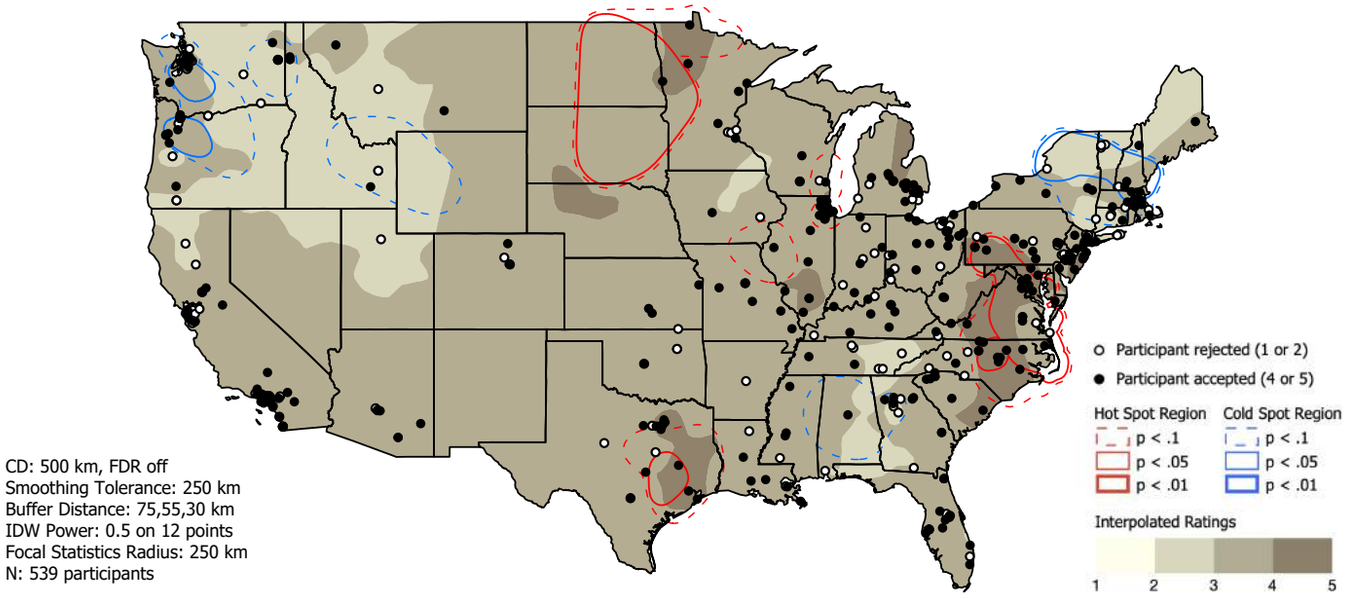
Education



Urban/Rural

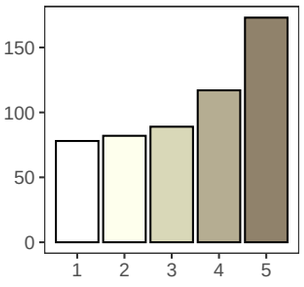


F1030: "I would've rather him gone to a small school."

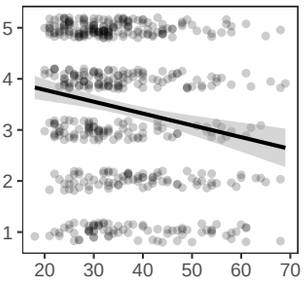


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

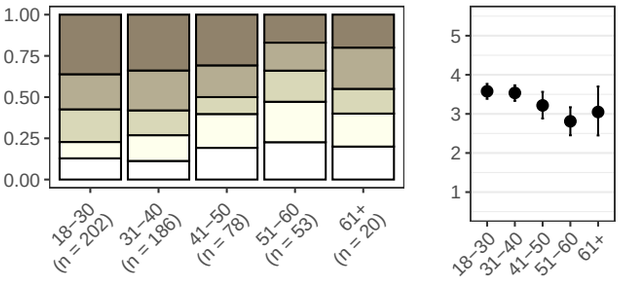
Judgments



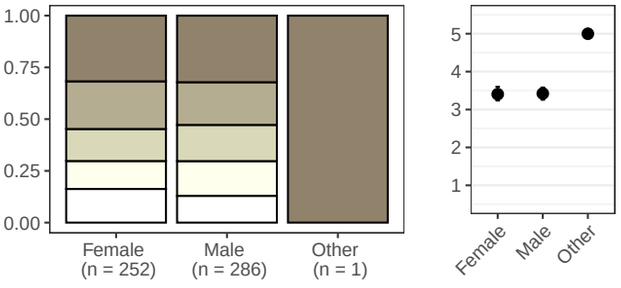
Age



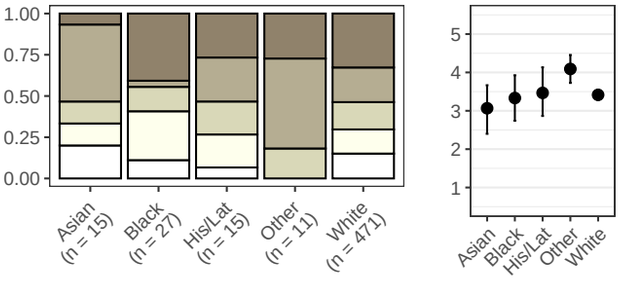
Age groups



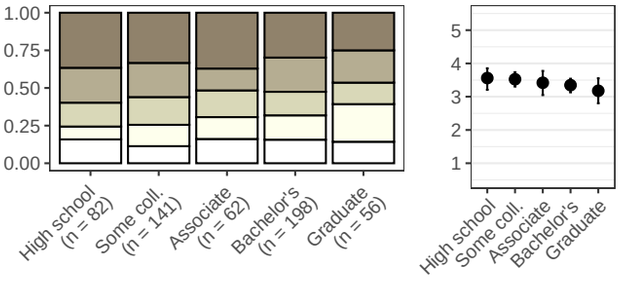
Gender



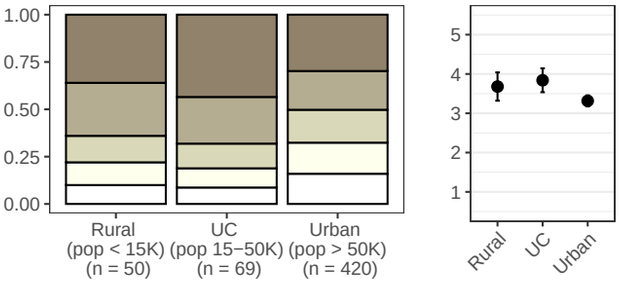
Race



Education

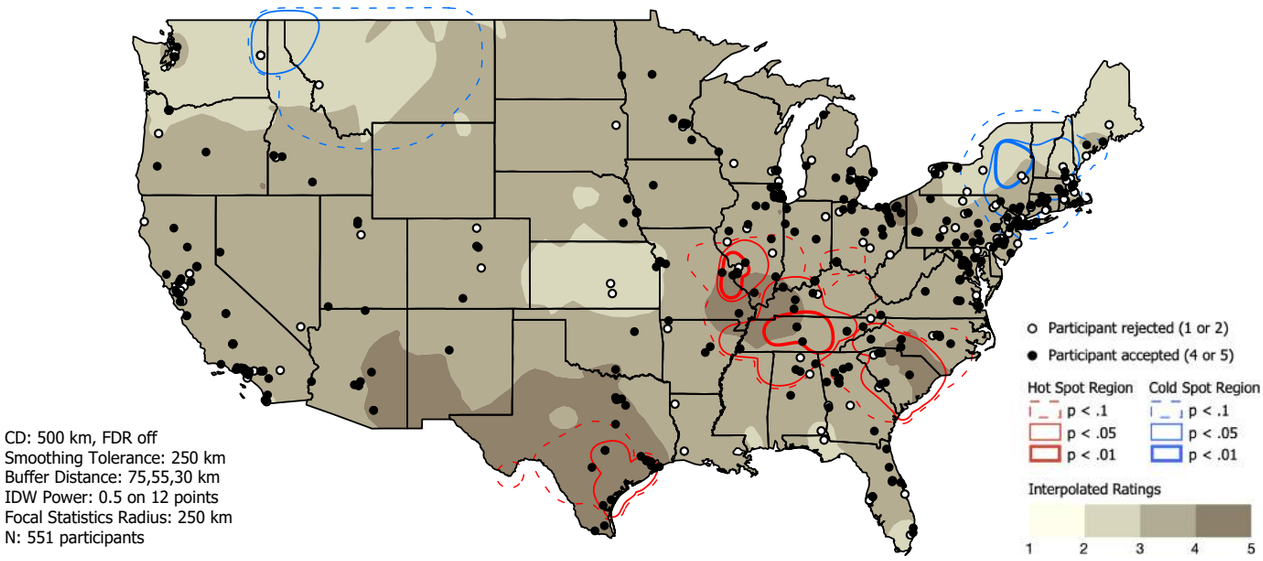


Urban/Rural

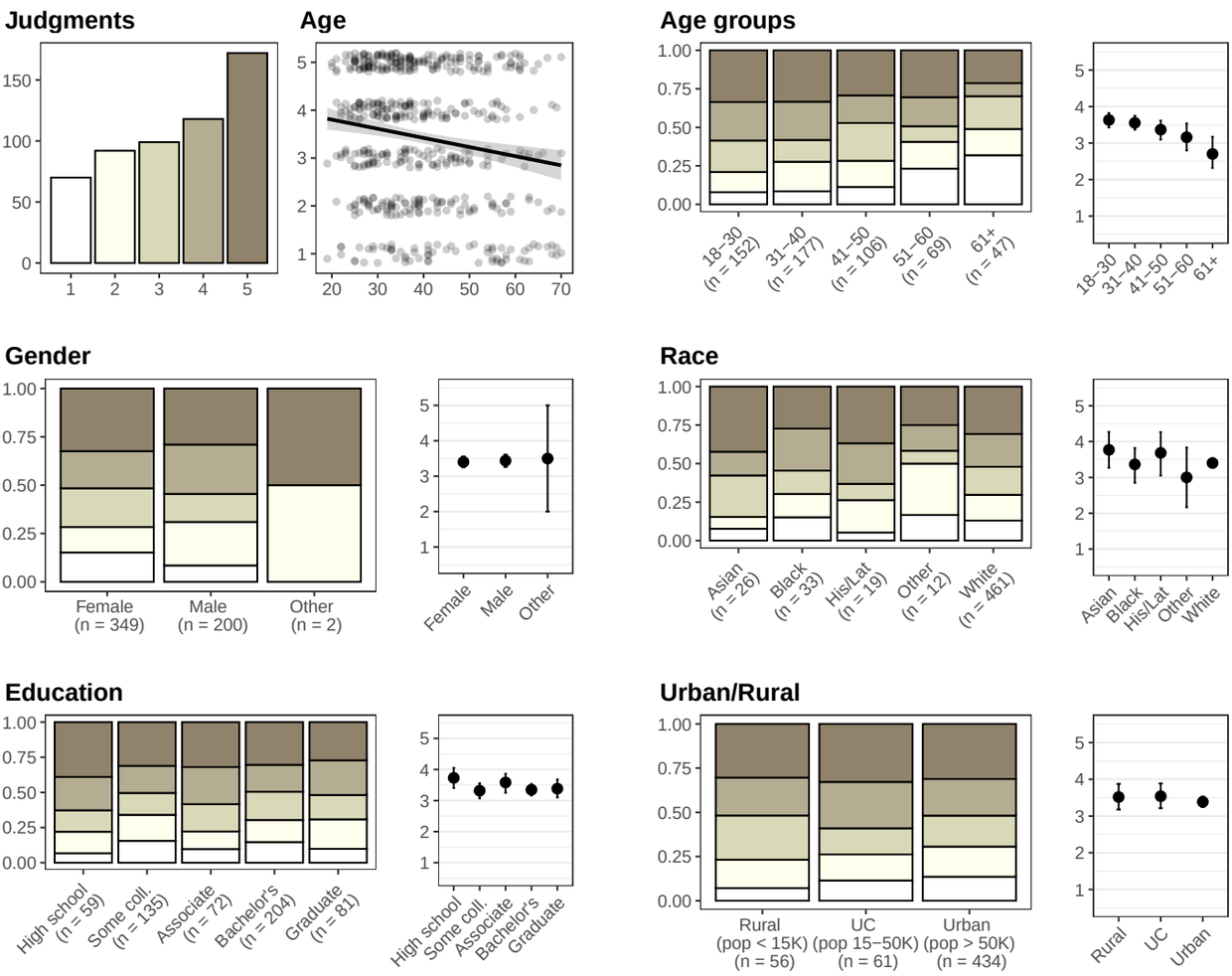


6.3.4 *Rather* + Participle Form

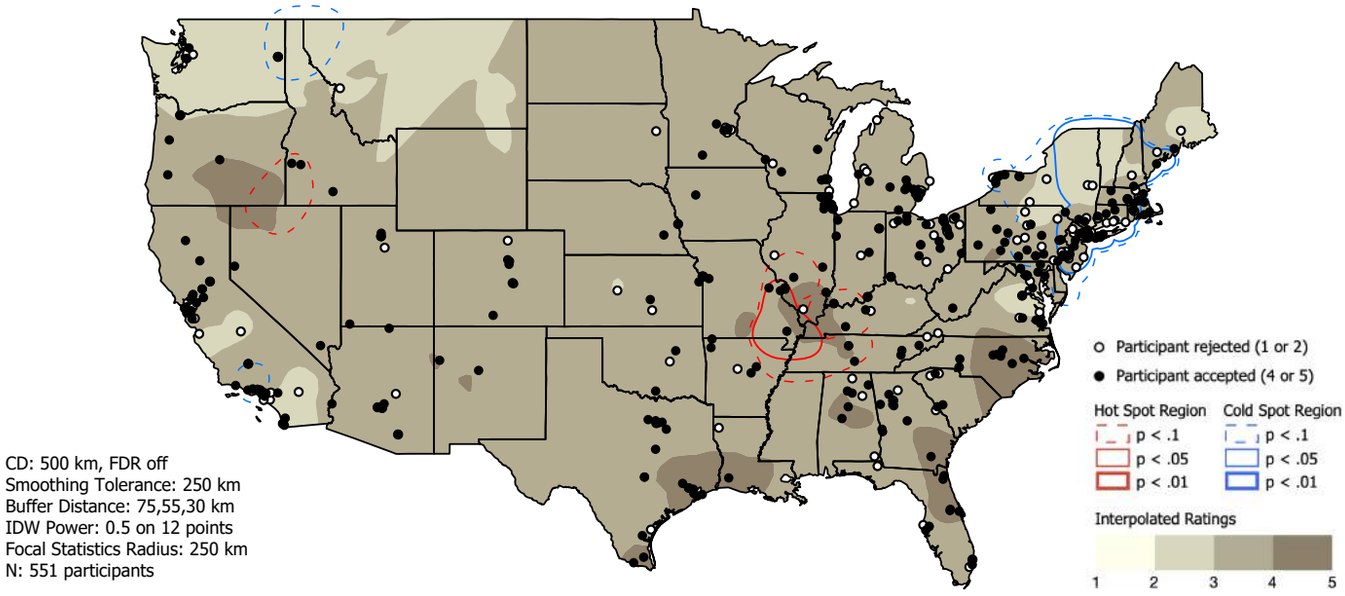
F1294: "I would have rather him gone to a small school."



CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

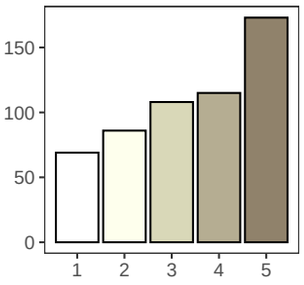


F1295: "I would have rather him slept on the couch."

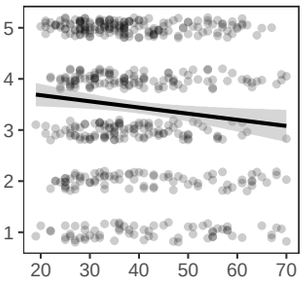


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

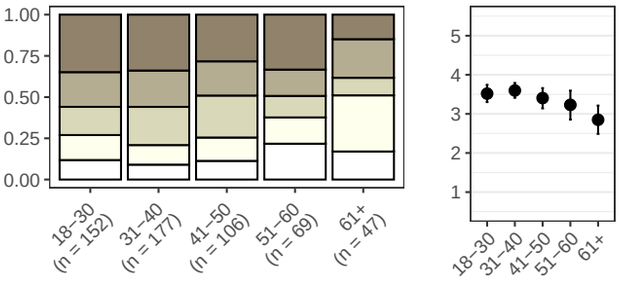
Judgments



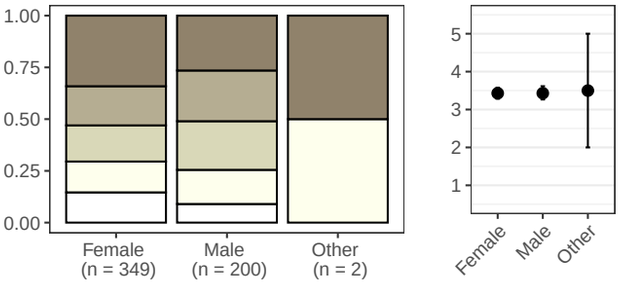
Age



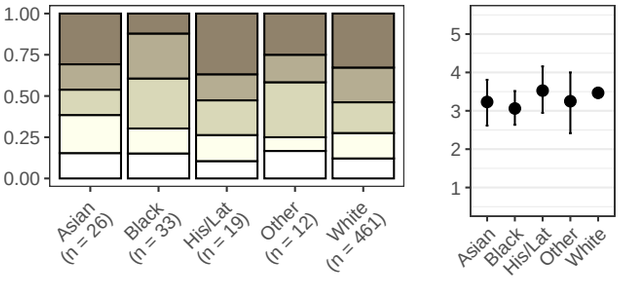
Age groups



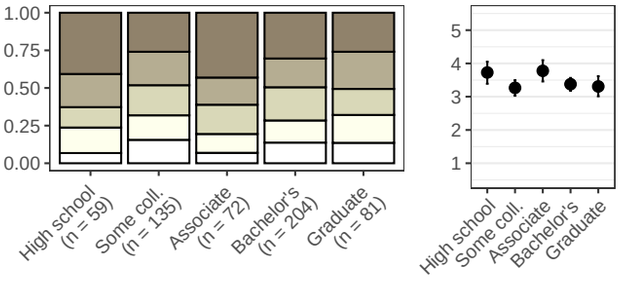
Gender



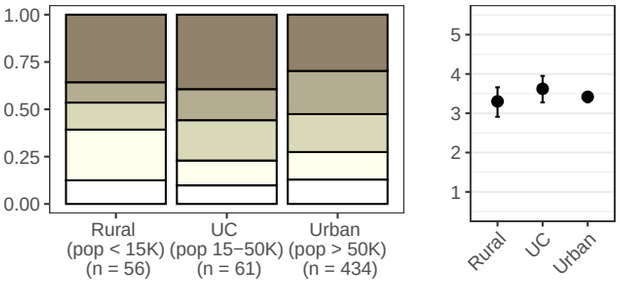
Race



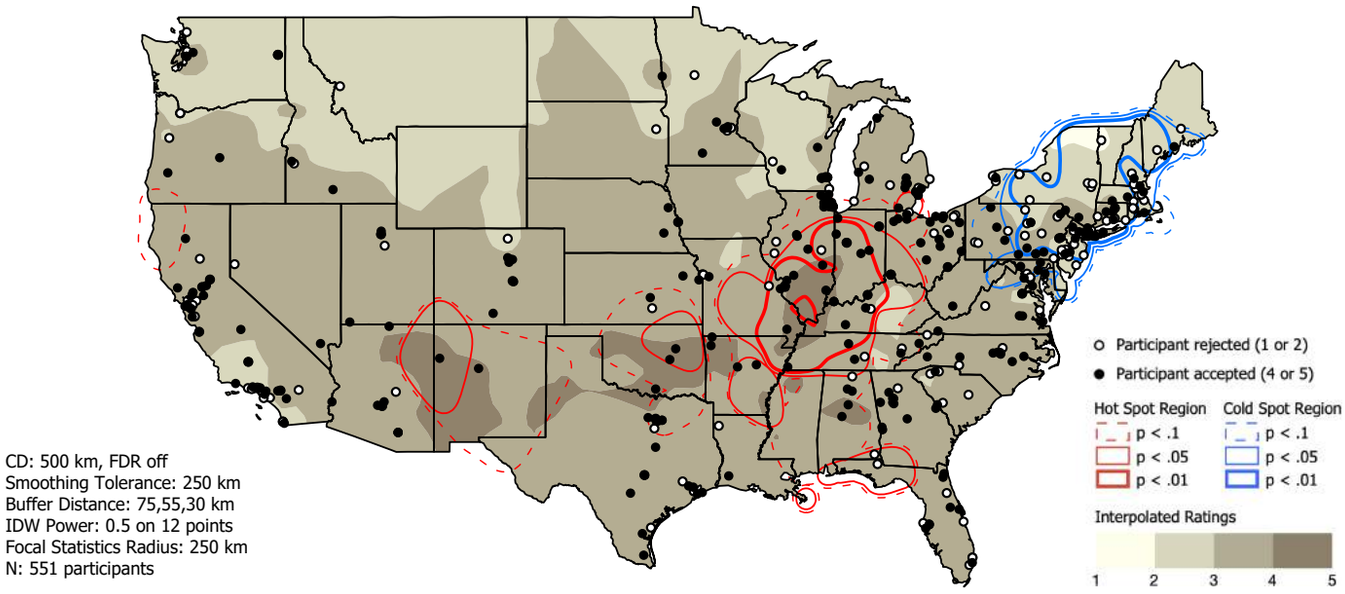
Education



Urban/Rural

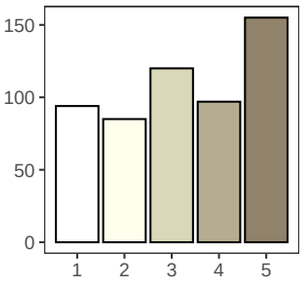


F1296: "We would have rather him stayed in bed."

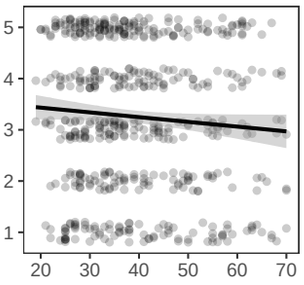


CD: 500 km, FDR off
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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

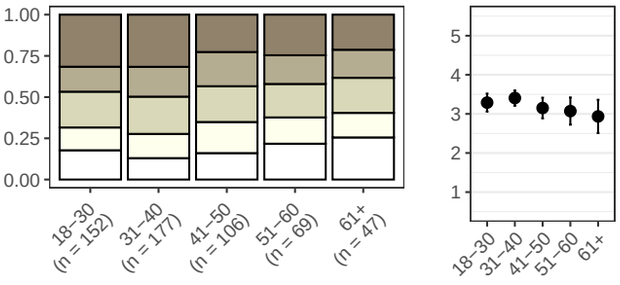
Judgments



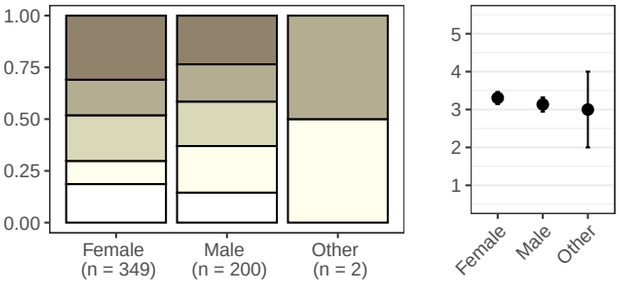
Age



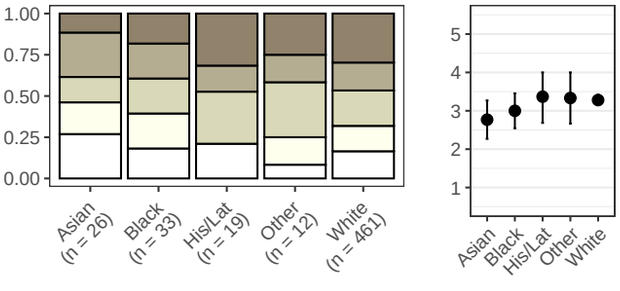
Age groups



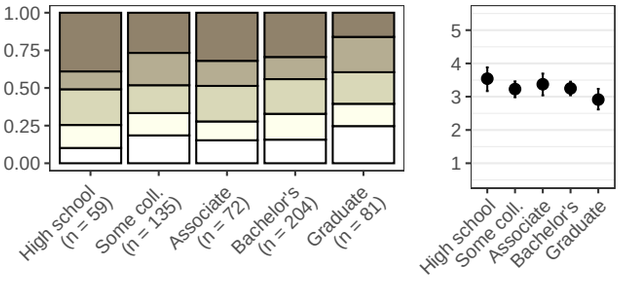
Gender



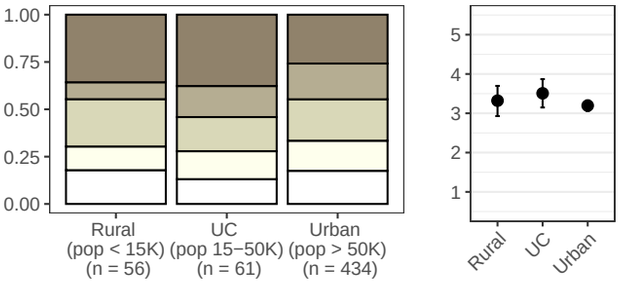
Race



Education



Urban/Rural



7 Survey 12: *Needs washed*

The *needs washed* sentences appearing on Survey 12 were included to test the construction with *want*, *like* and *love*. The latter had previously not been discussed in the literature (as far as we knew), but web searches and informal conversations with speakers and linguists had suggested that it might be possible. In addition, we also tested how the *needs washed* construction was accepted in present tense, with *would* and with *would have*. This was in part to make the comparison with verbal *rather* discussed in the next subsection possible.

(25)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1302	This baby really likes carried.	551	1.84	1.21	12
F1304	This baby would have really liked carried.	551	1.66	1.00	12
F1308	This baby really loves carried.	551	1.66	1.06	12
F1309	This baby would really love carried.	551	1.72	1.12	12
F1310	This baby would have really loved carried.	551	1.57	0.93	12
F1305	This baby really wants carried.	551	2.33	1.52	12
F1306	This baby would really want carried.	551	1.78	1.15	12
F1307	This baby would have really wanted carried.	550	1.86	1.17	12

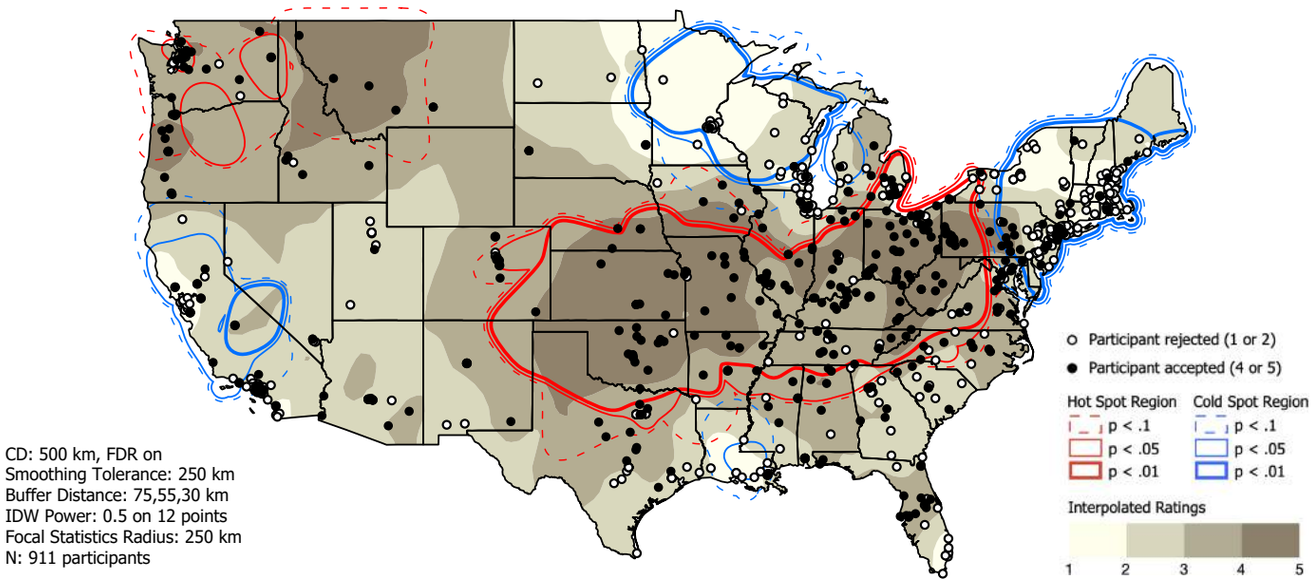
In addition, several sentences exemplifying the *needs washed* construction appeared on previous surveys as pilot sentences. 1049 and 1182 were also repeated on Survey 12.

(26)

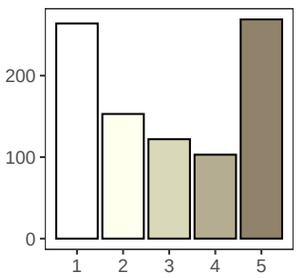
Sentence	Sentence text	Responses	Mean	SD	Survey
F1049	Most babies like cuddled.	2479	2.07	1.32	12, 6, 6b, 8
F1182	The baby wants picked up.	1462	2.82	1.58	12, 6b
F1181	My car needs fixed.	911	2.96	1.62	6b

7.1 *Need*

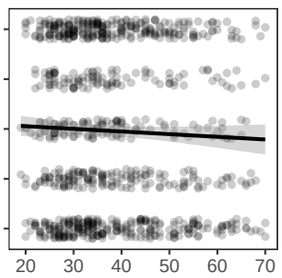
F1181: "My car needs fixed."



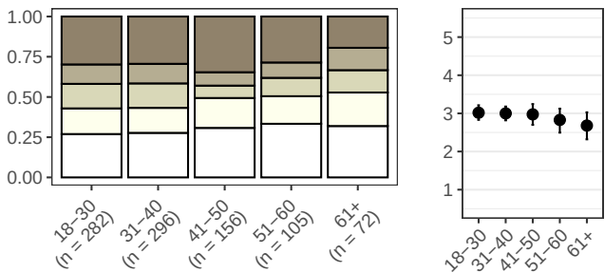
Judgments



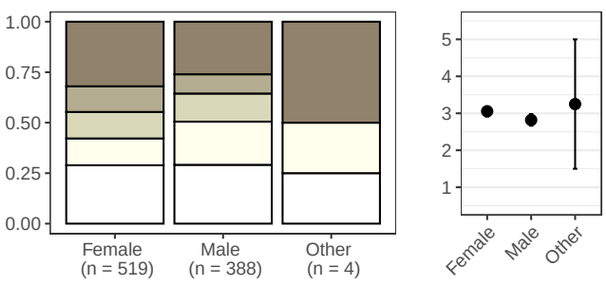
Age



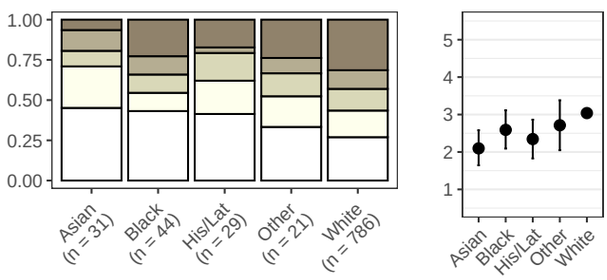
Age groups



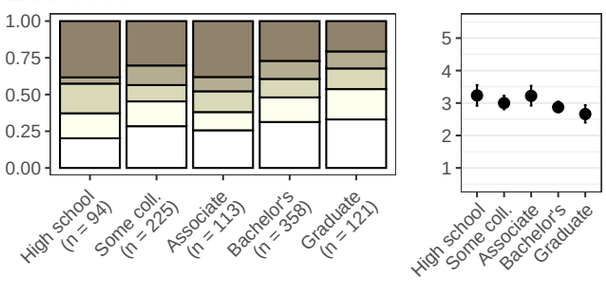
Gender



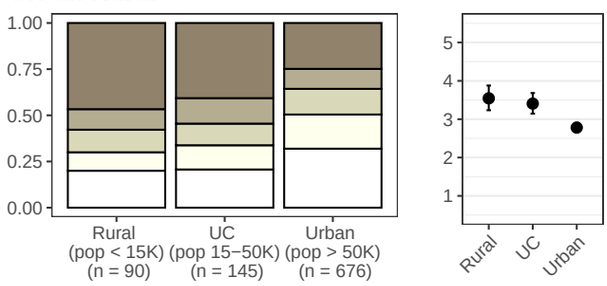
Race



Education

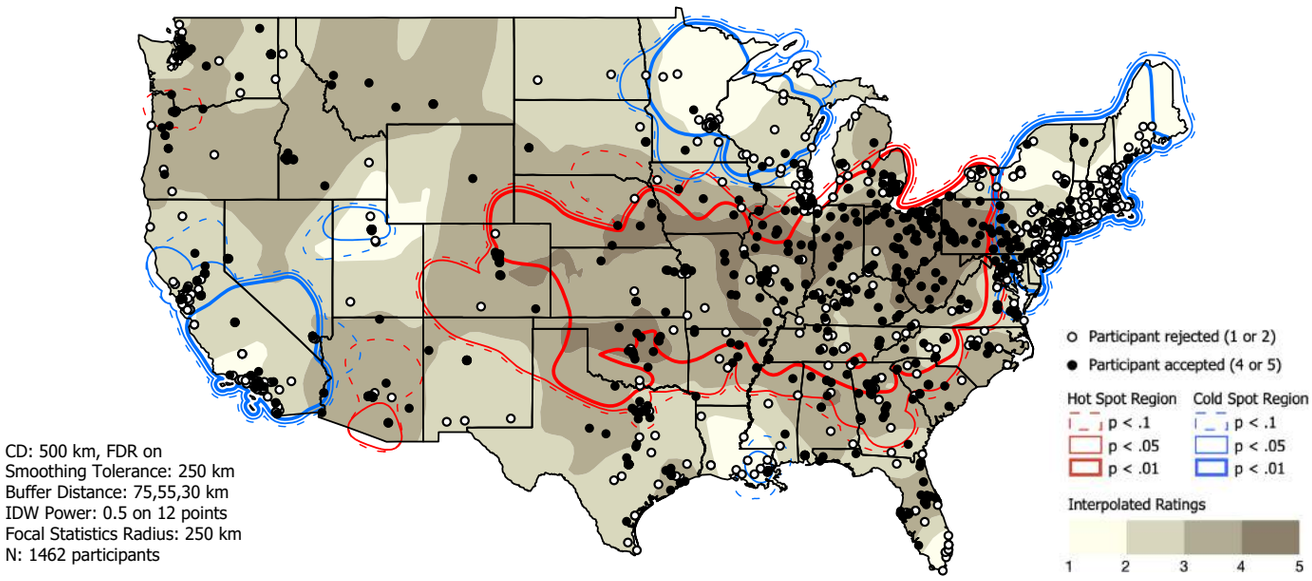


Urban/Rural

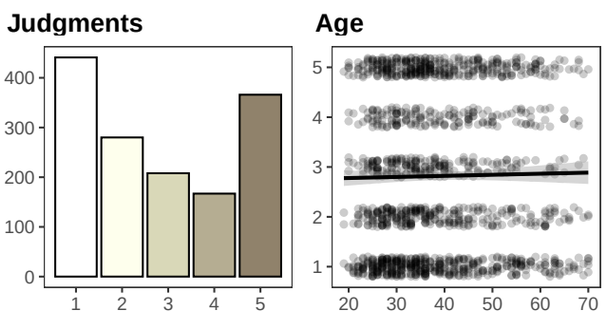


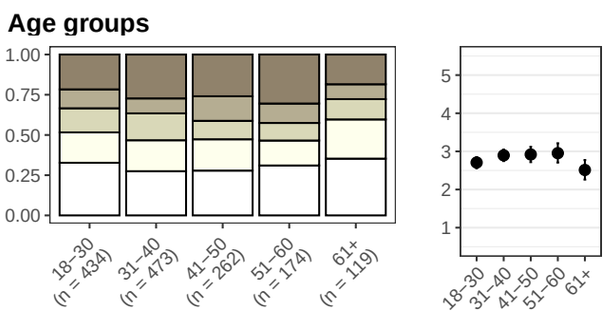
7.2 *Want*

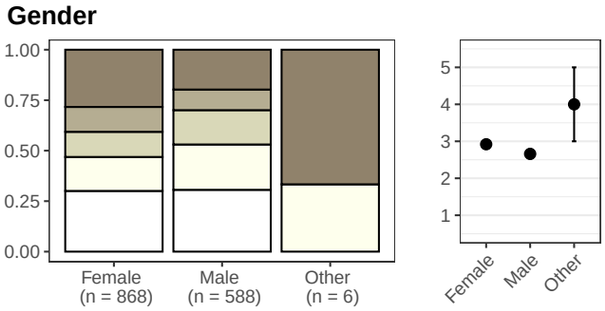
F1182: "The baby wants picked up."

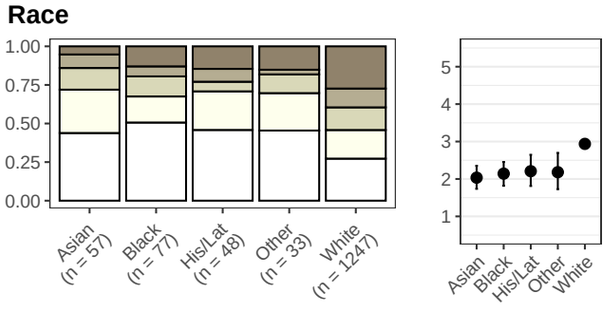


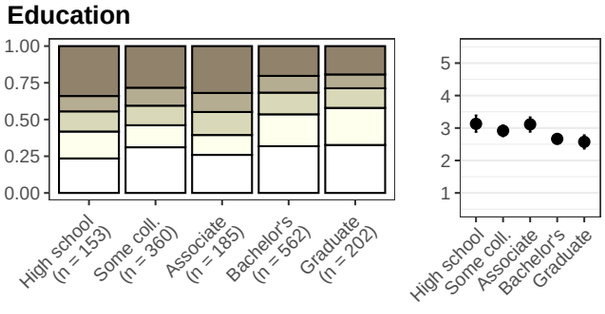
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Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1462 participants

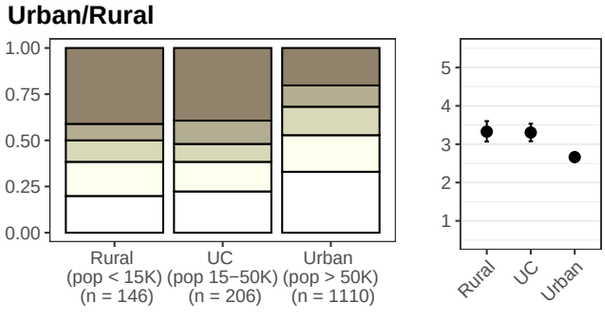




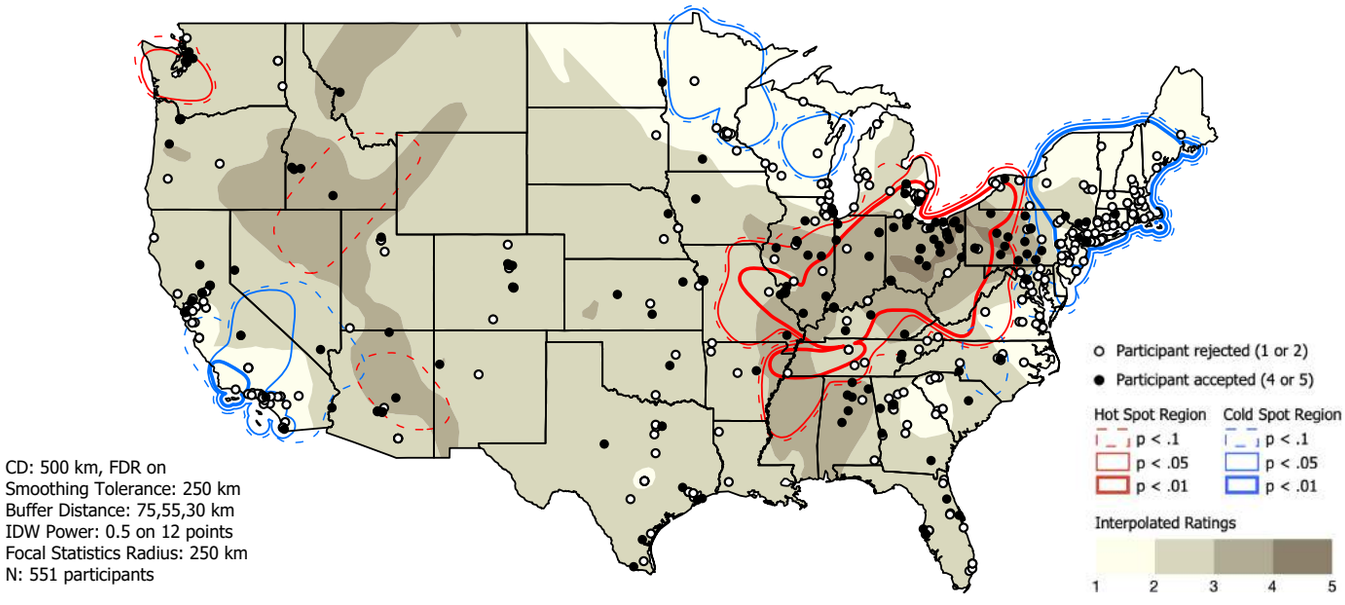






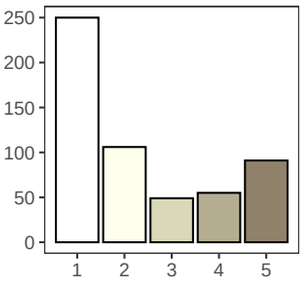


F1305: "This baby really wants carried."

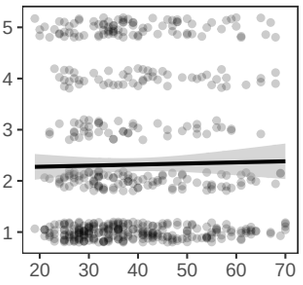


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

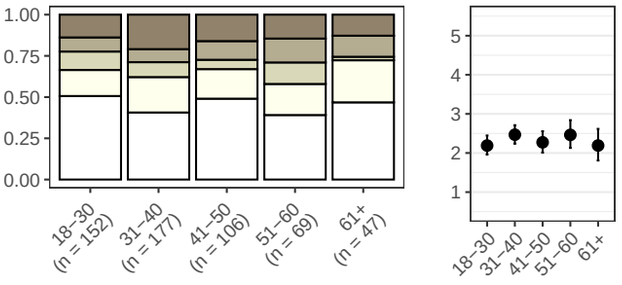
Judgments



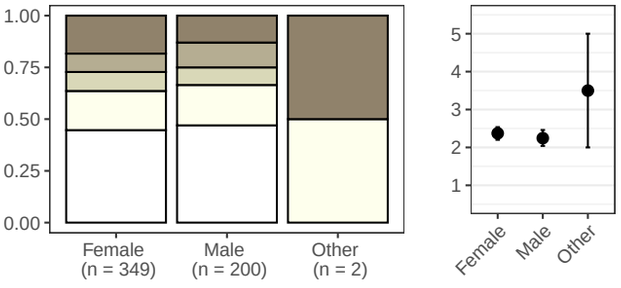
Age



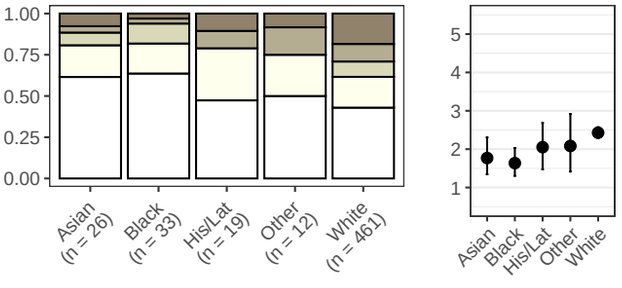
Age groups



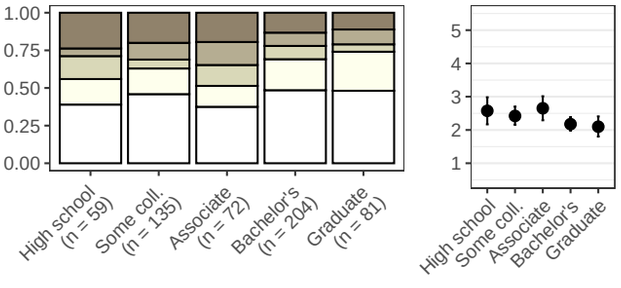
Gender



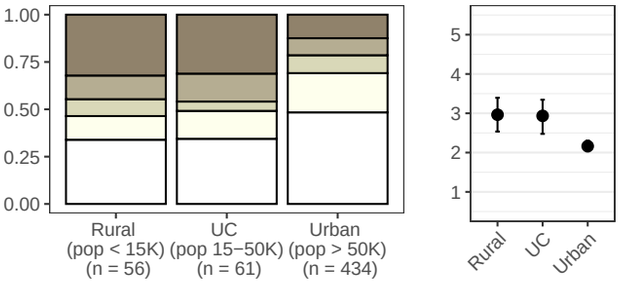
Race



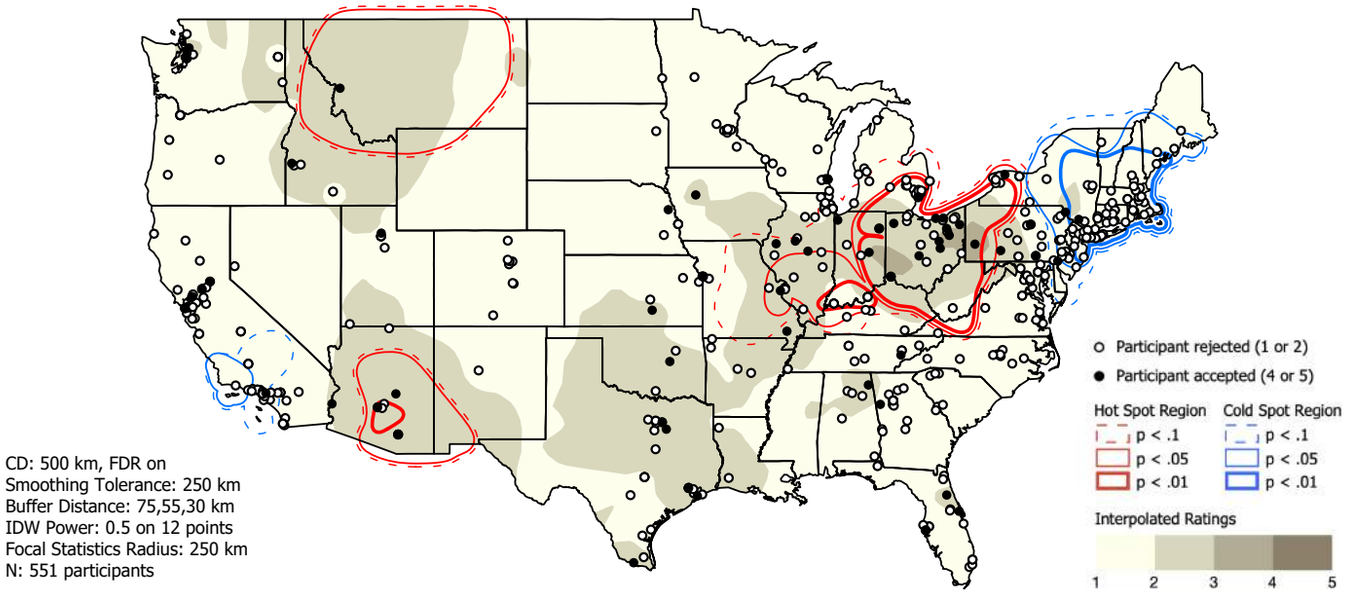
Education



Urban/Rural

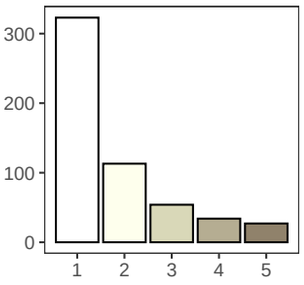


F1306: "This baby would really want carried."

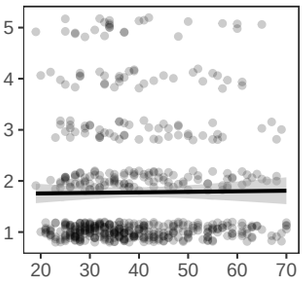


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

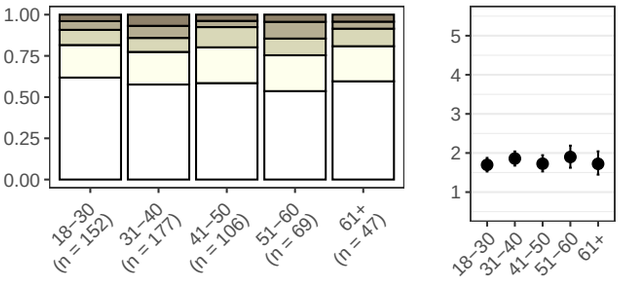
Judgments



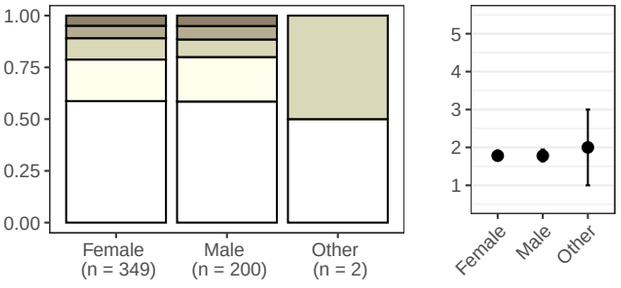
Age



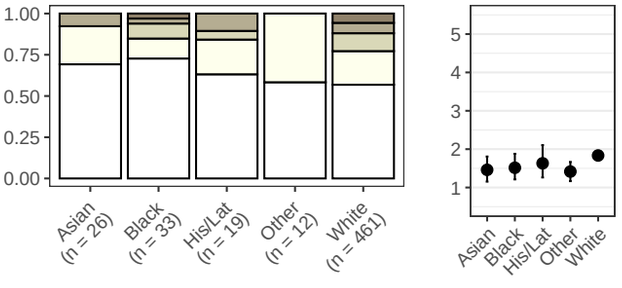
Age groups



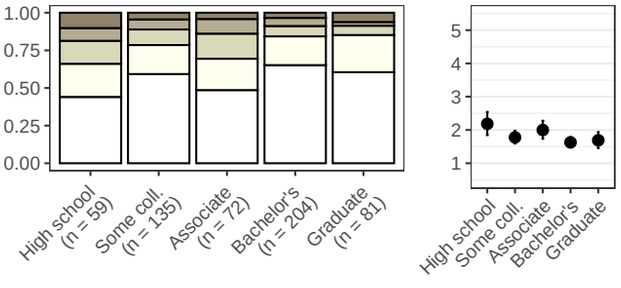
Gender



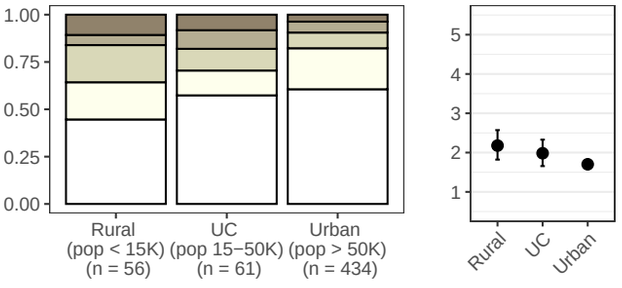
Race



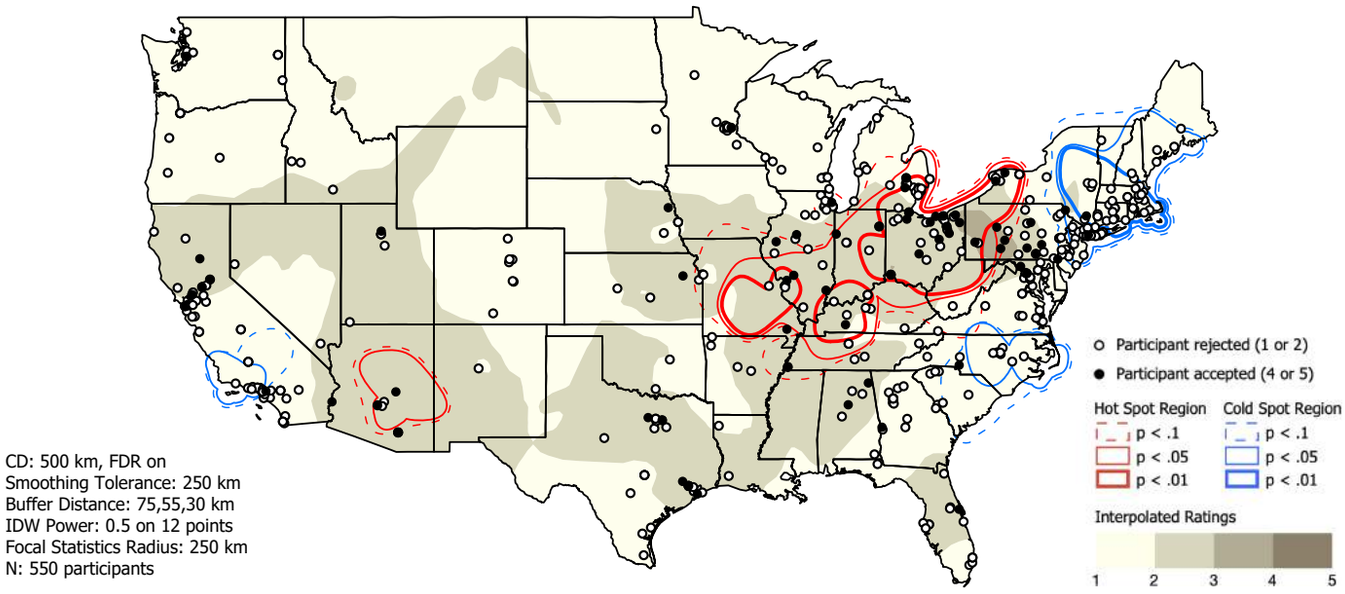
Education



Urban/Rural

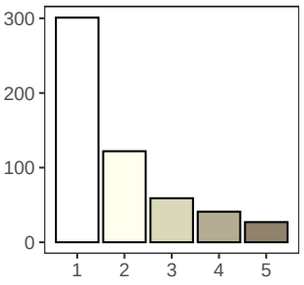


F1307: "This baby would have really wanted carried."

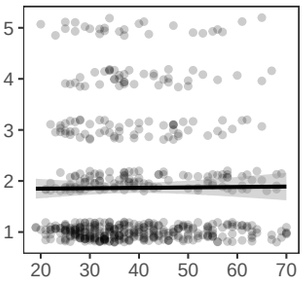


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

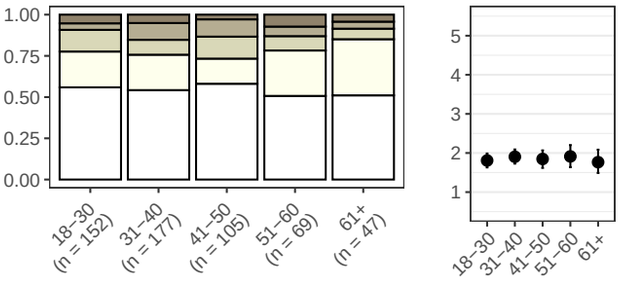
Judgments



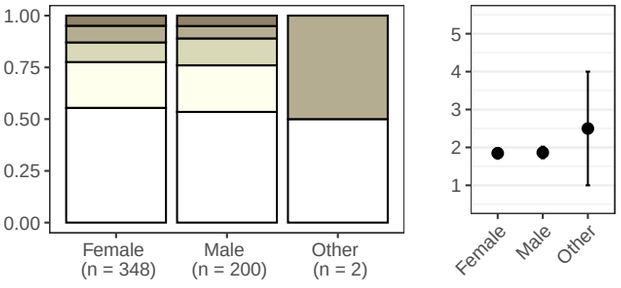
Age



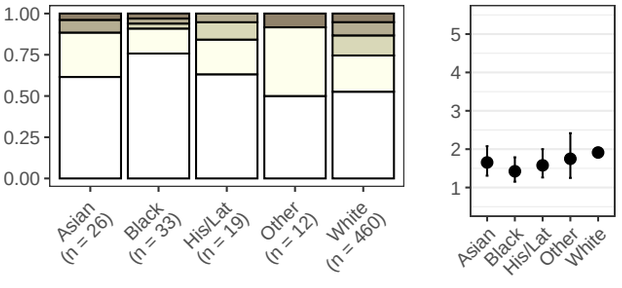
Age groups



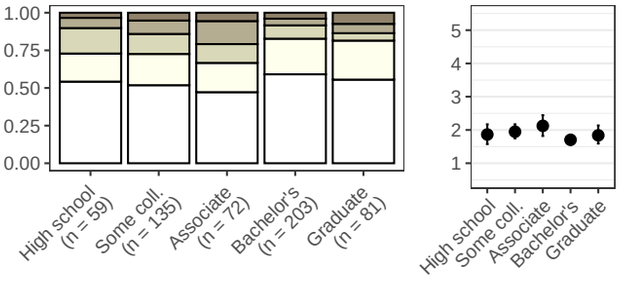
Gender



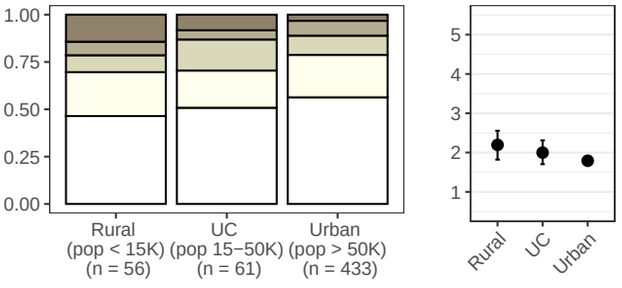
Race



Education

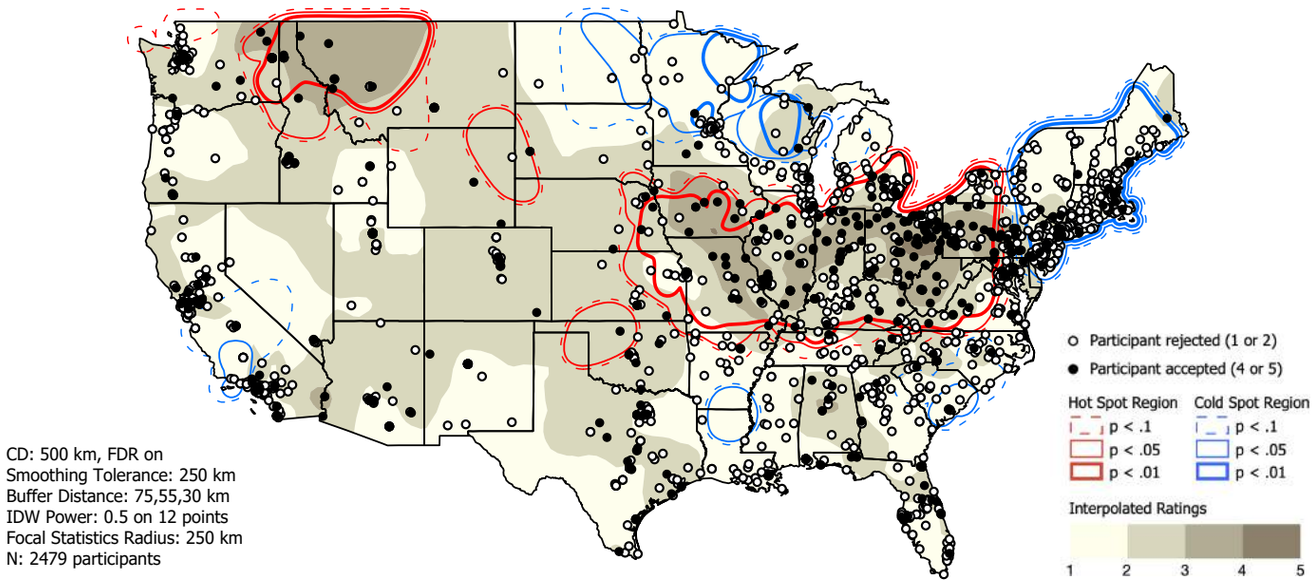


Urban/Rural

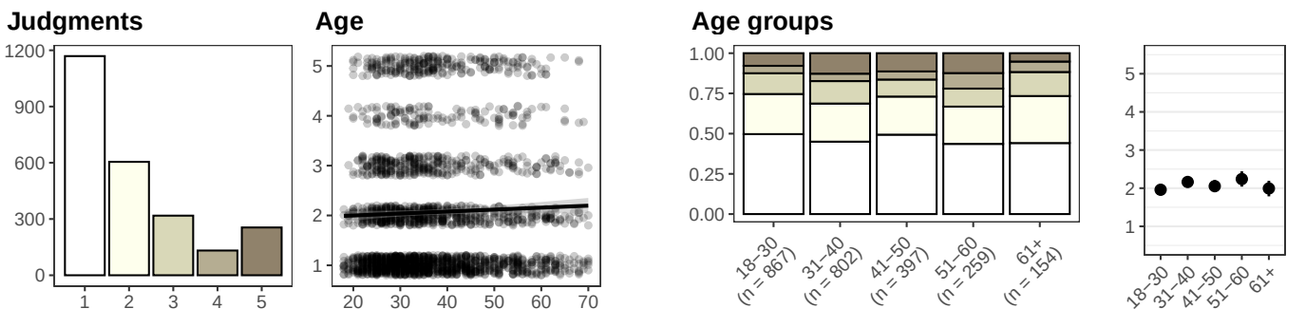


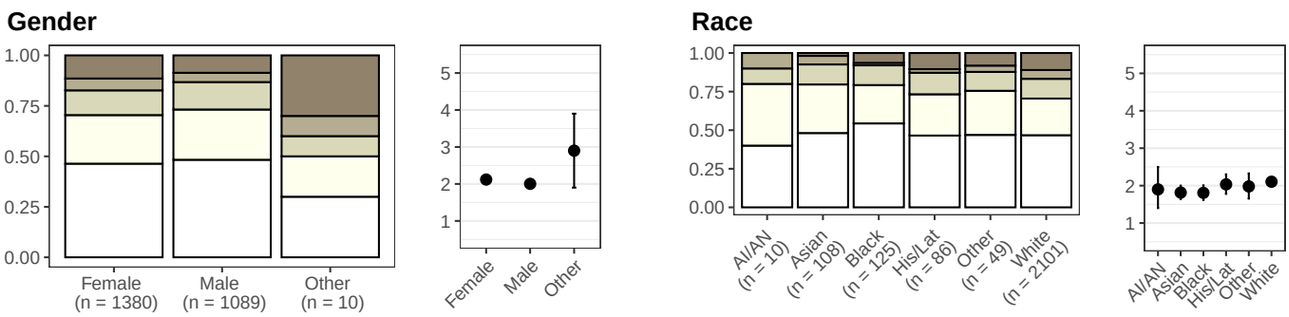
7.3 *Like*

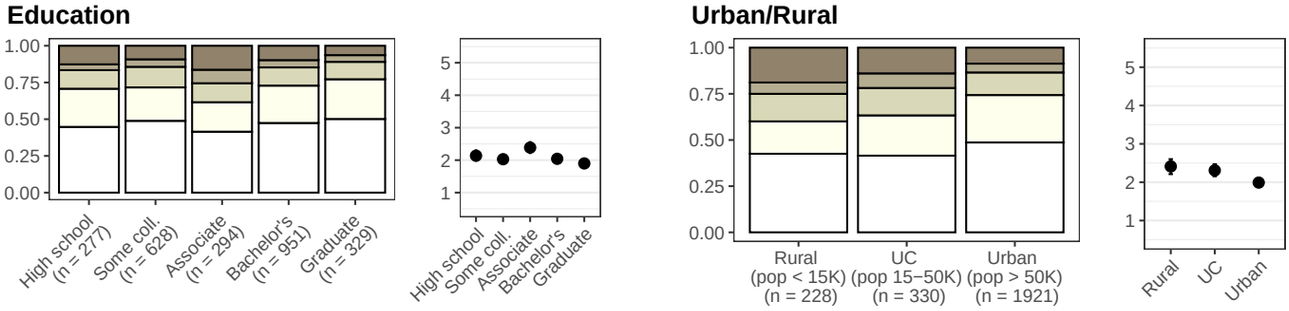
F1049: "Most babies like cuddled."



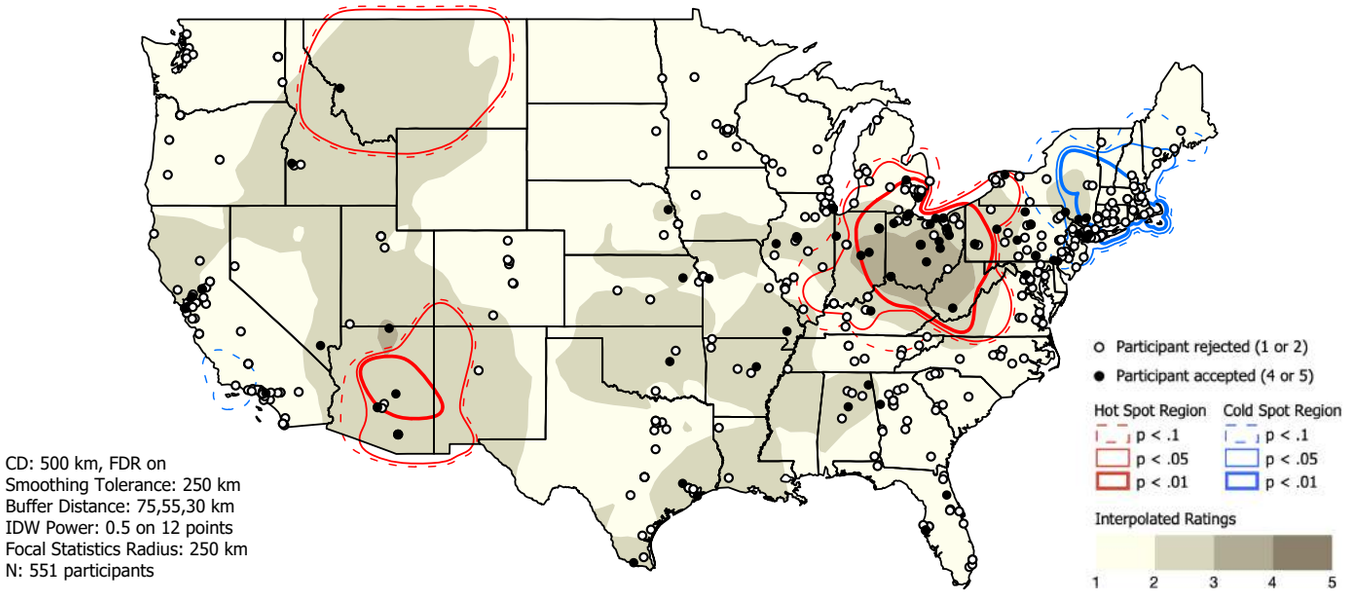
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Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 2479 participants





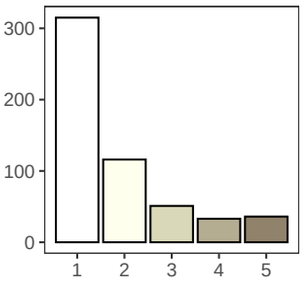


F1302: "This baby really likes carried."

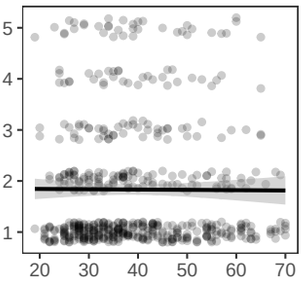


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

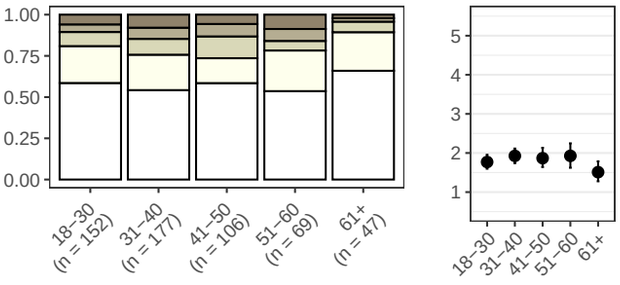
Judgments



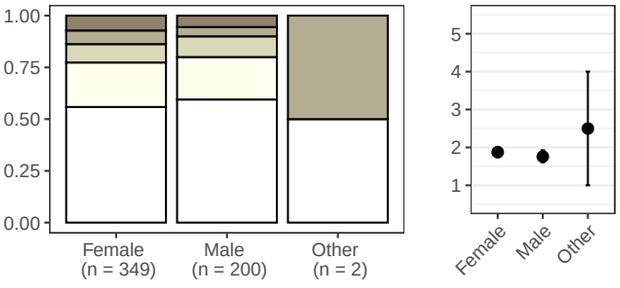
Age



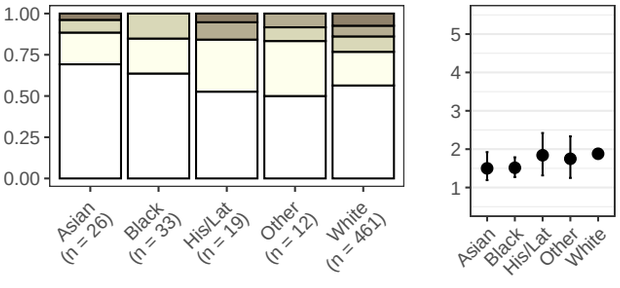
Age groups



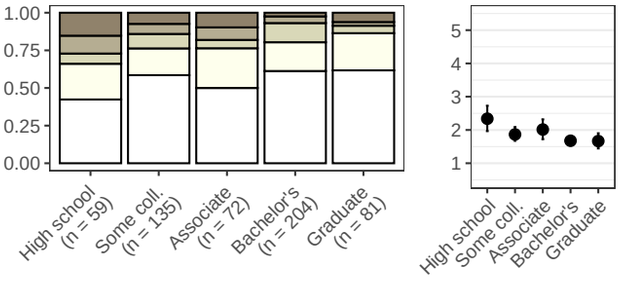
Gender



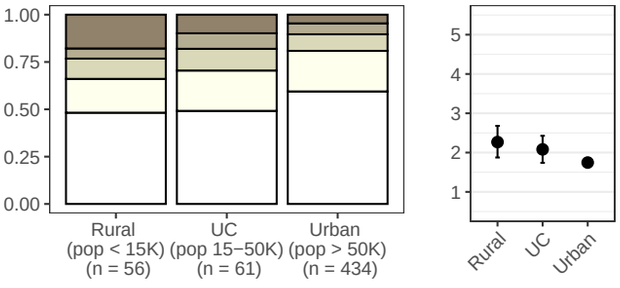
Race



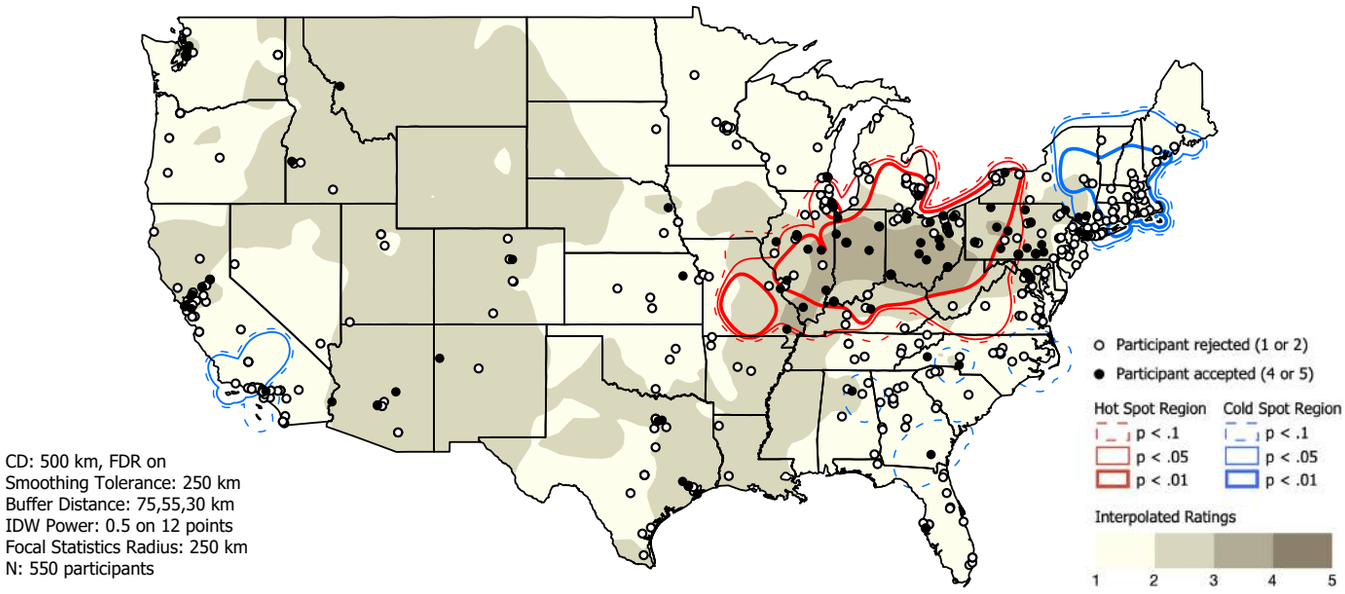
Education



Urban/Rural

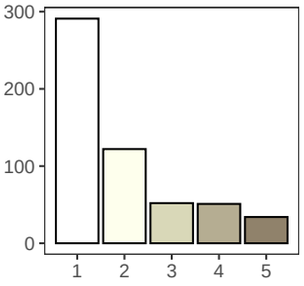


F1303: "This baby would really like carried."

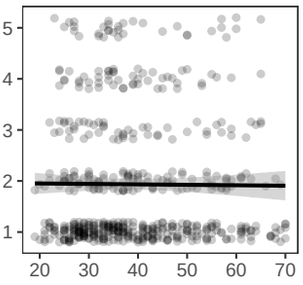


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 550 participants

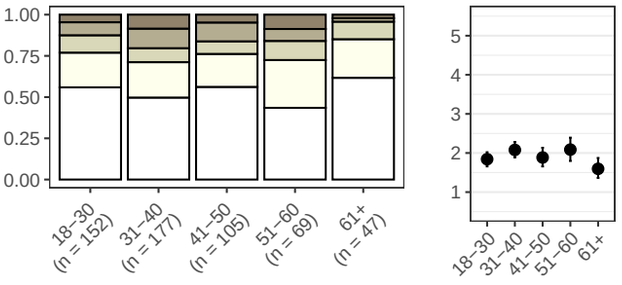
Judgments



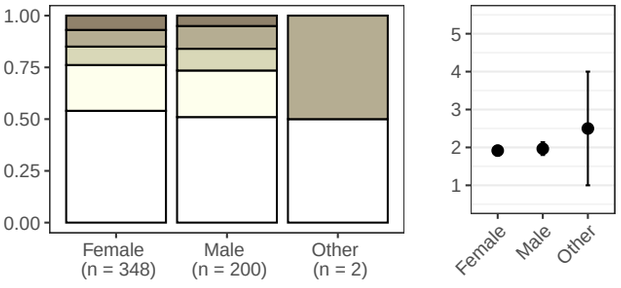
Age



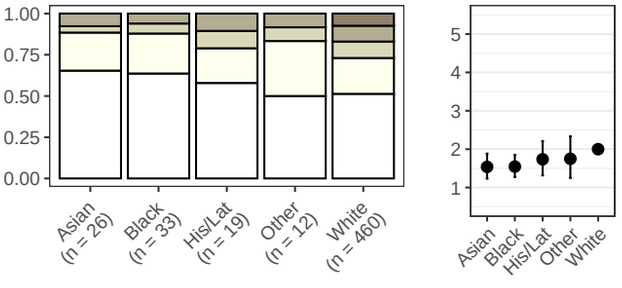
Age groups



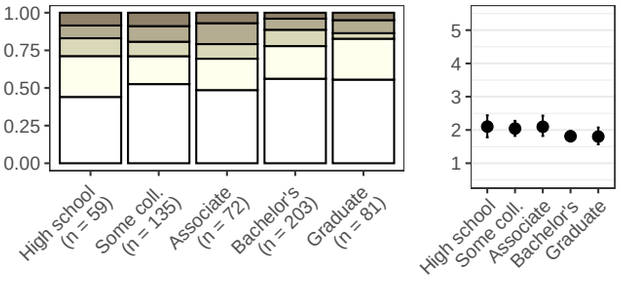
Gender



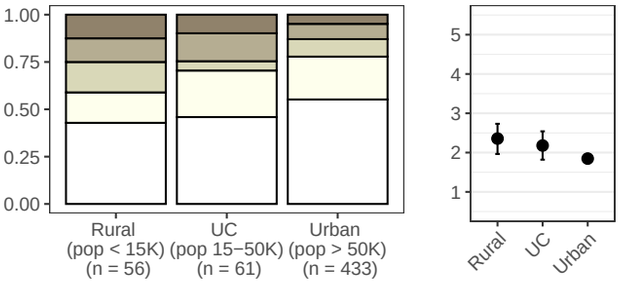
Race



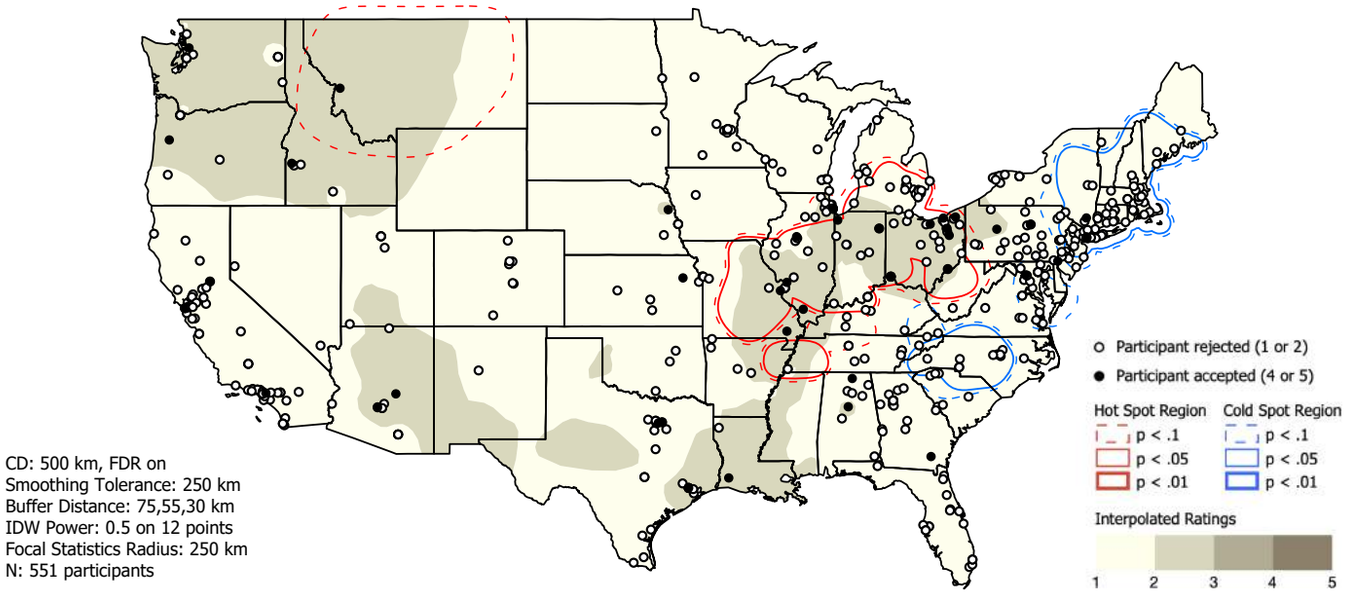
Education



Urban/Rural

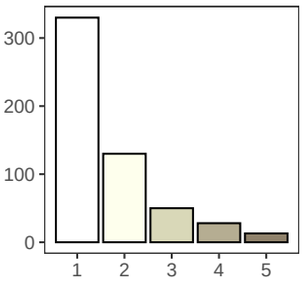


F1304: "This baby would have really liked carried."

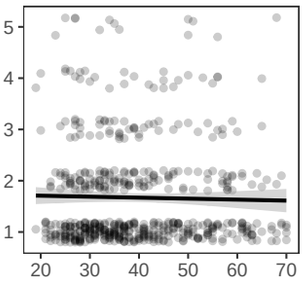


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

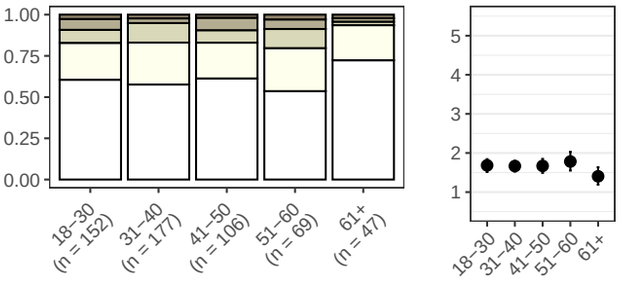
Judgments



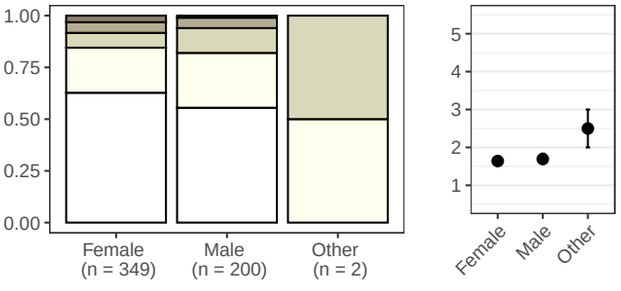
Age



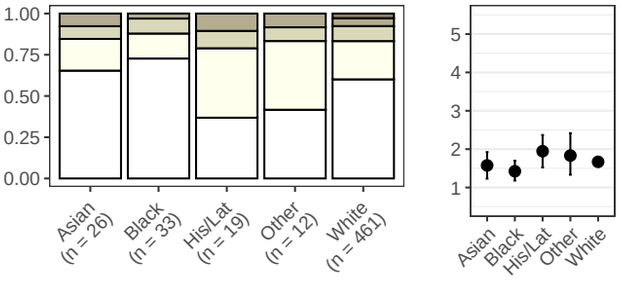
Age groups



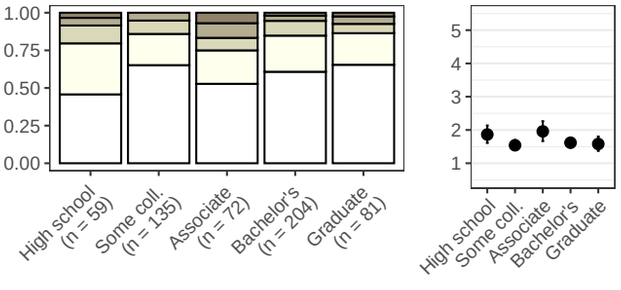
Gender



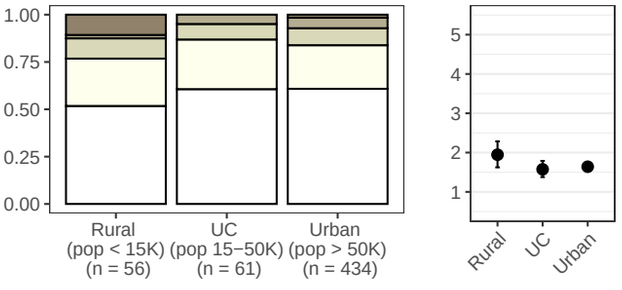
Race



Education

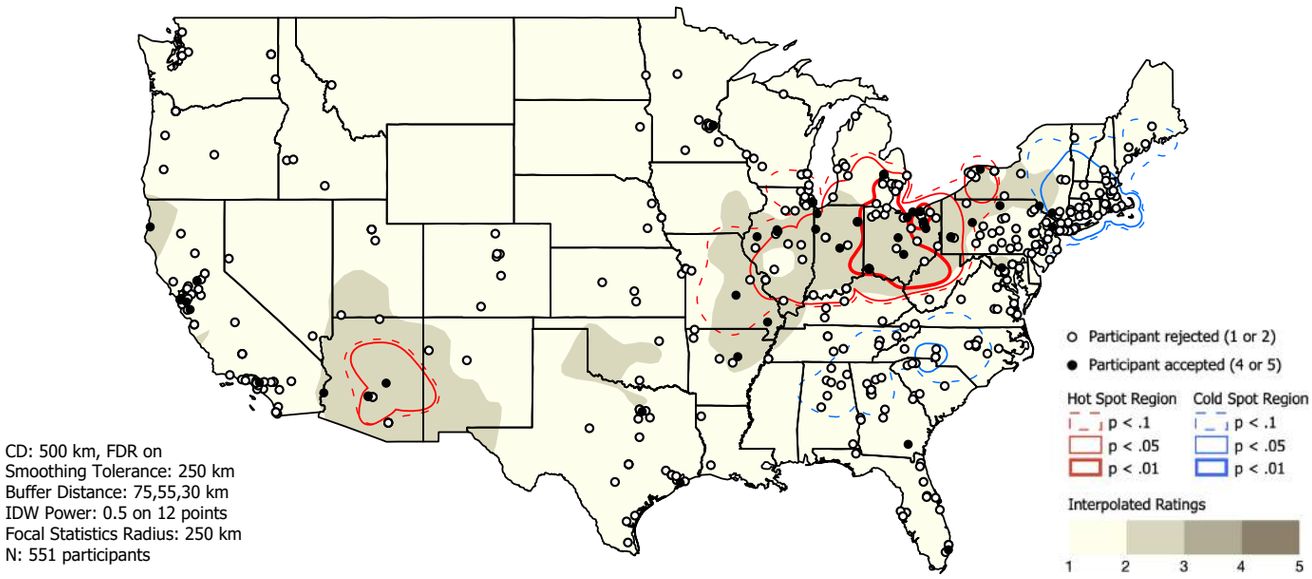


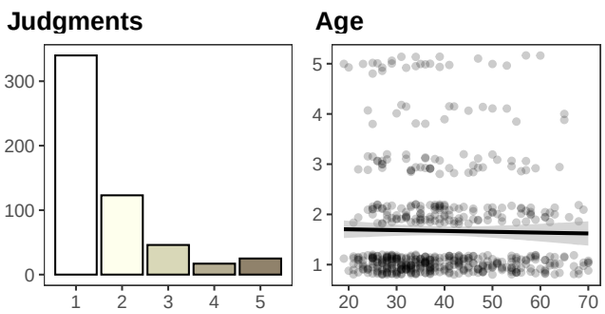
Urban/Rural

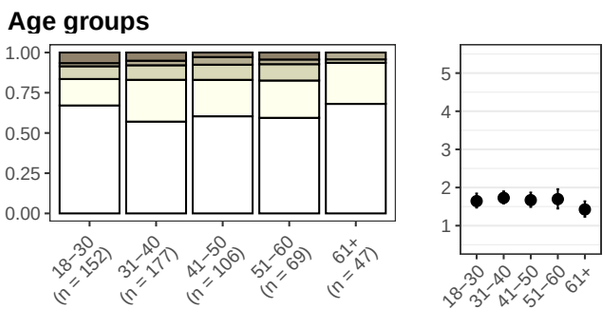


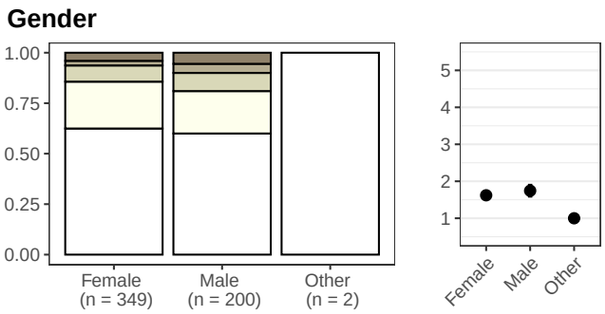
7.4 *Love*

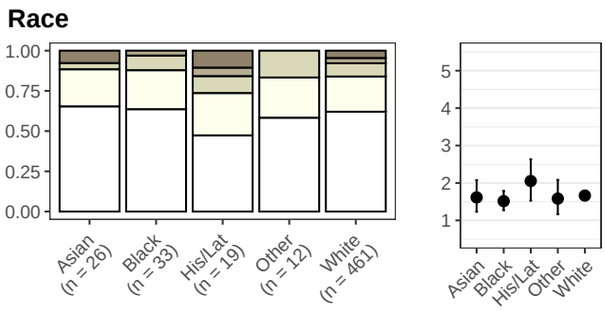
F1308: "This baby really loves carried."

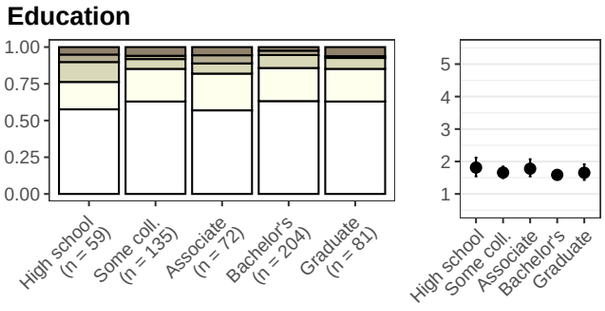


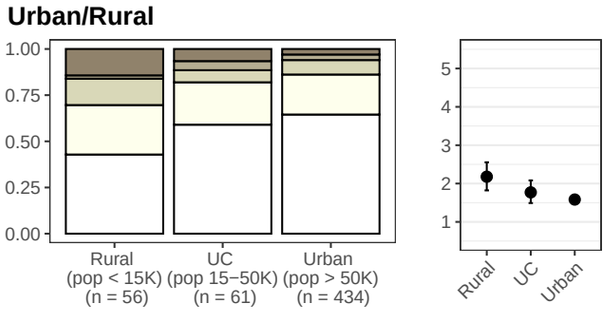




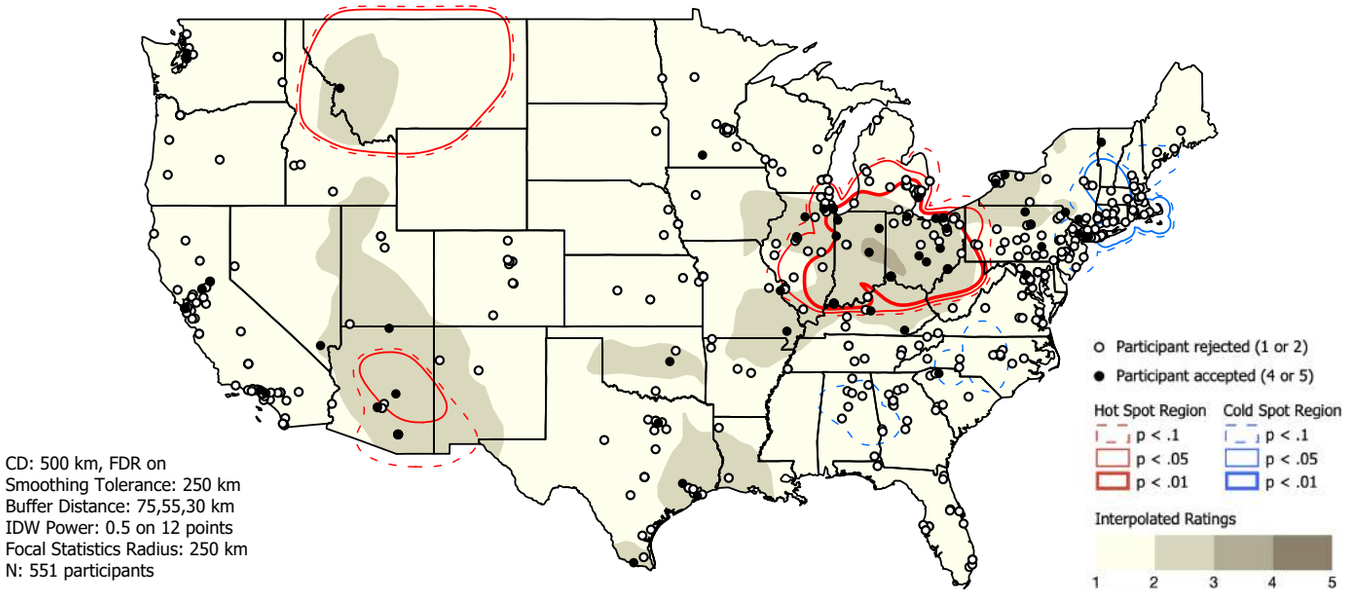






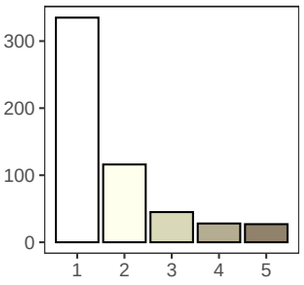


F1309: "This baby would really love carried."

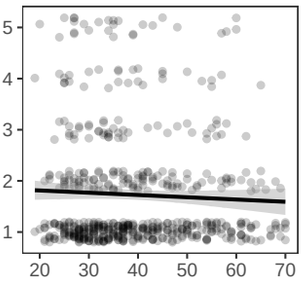


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

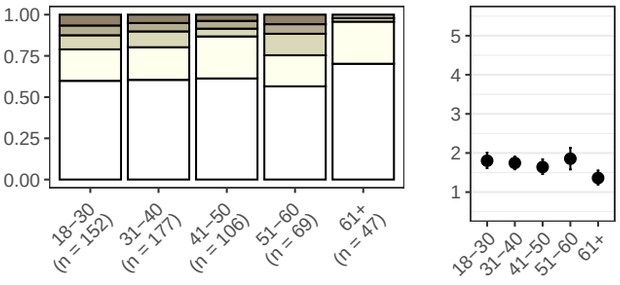
Judgments



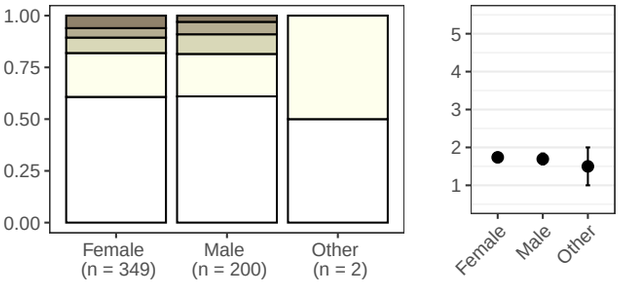
Age



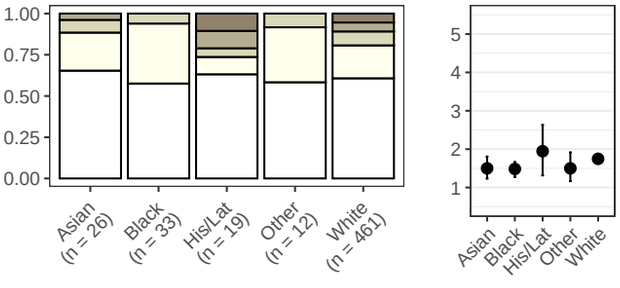
Age groups



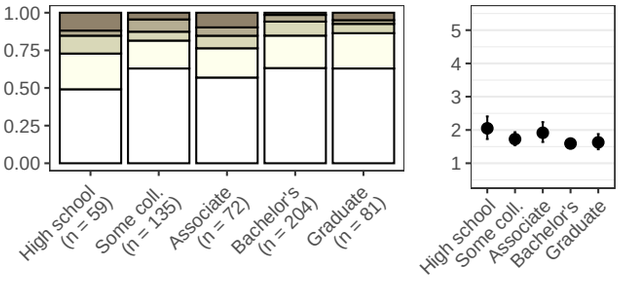
Gender



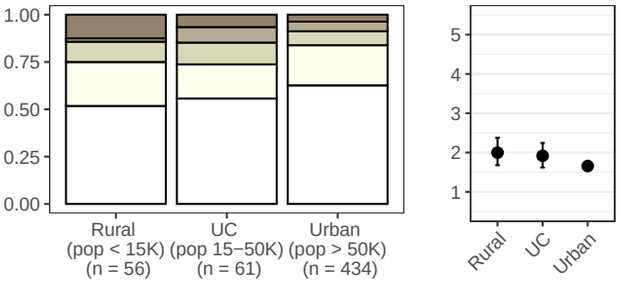
Race



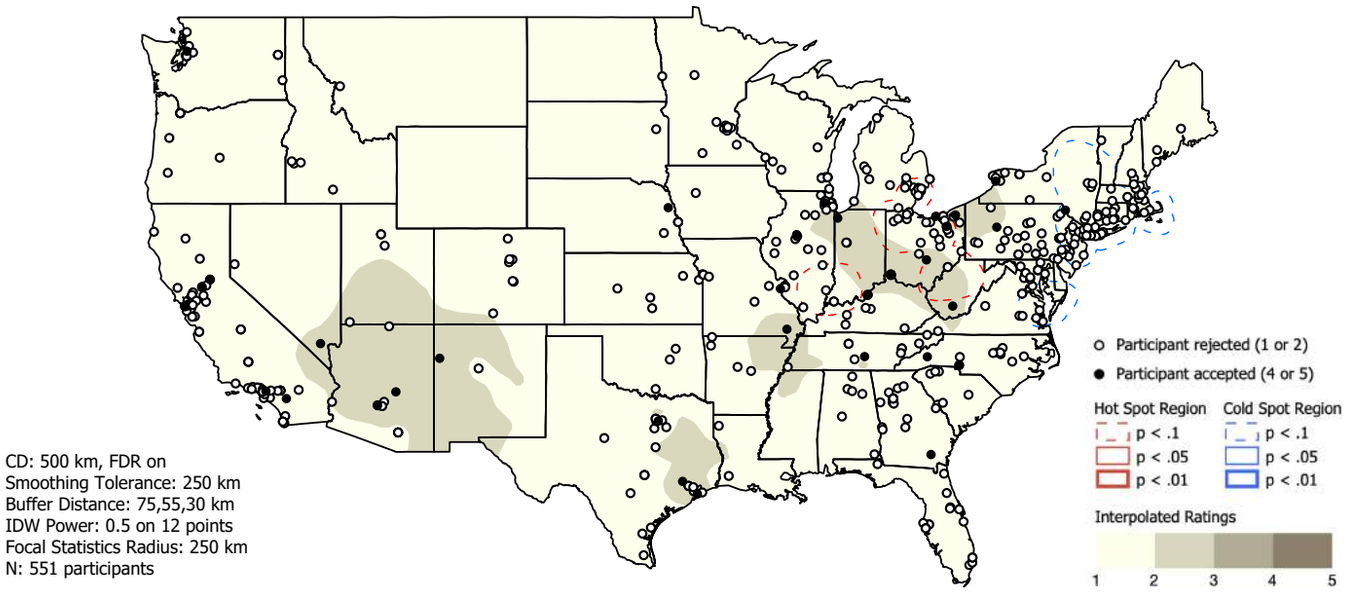
Education



Urban/Rural

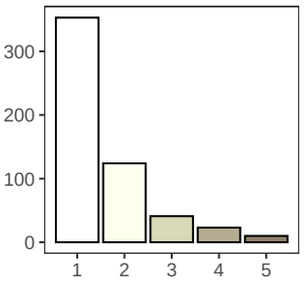


F1310: "This baby would have really loved carried."

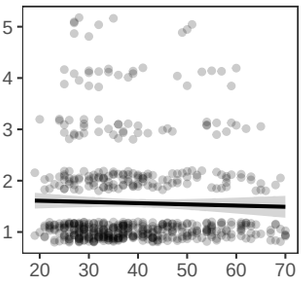


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

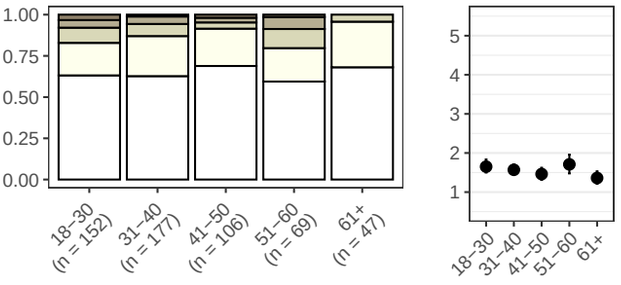
Judgments



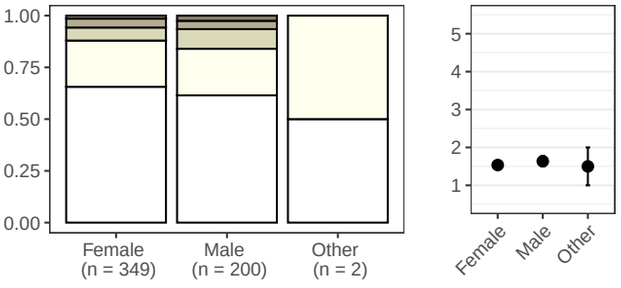
Age



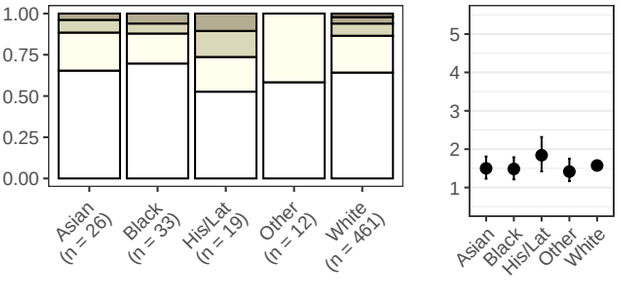
Age groups



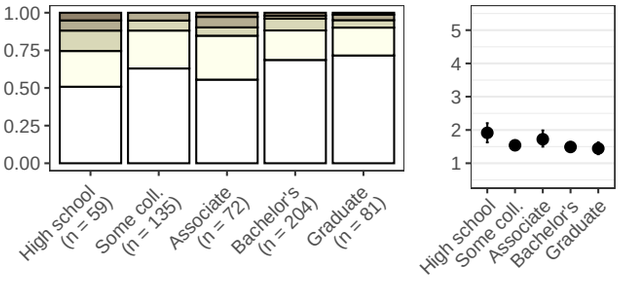
Gender



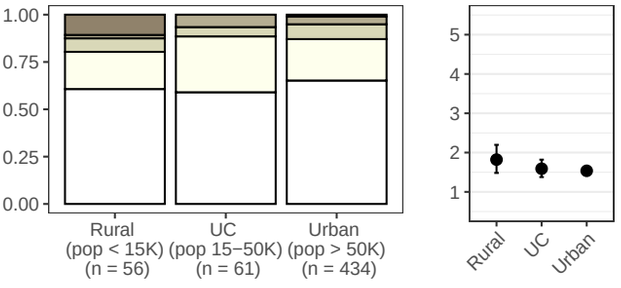
Race



Education



Urban/Rural



7.5 *Rather*

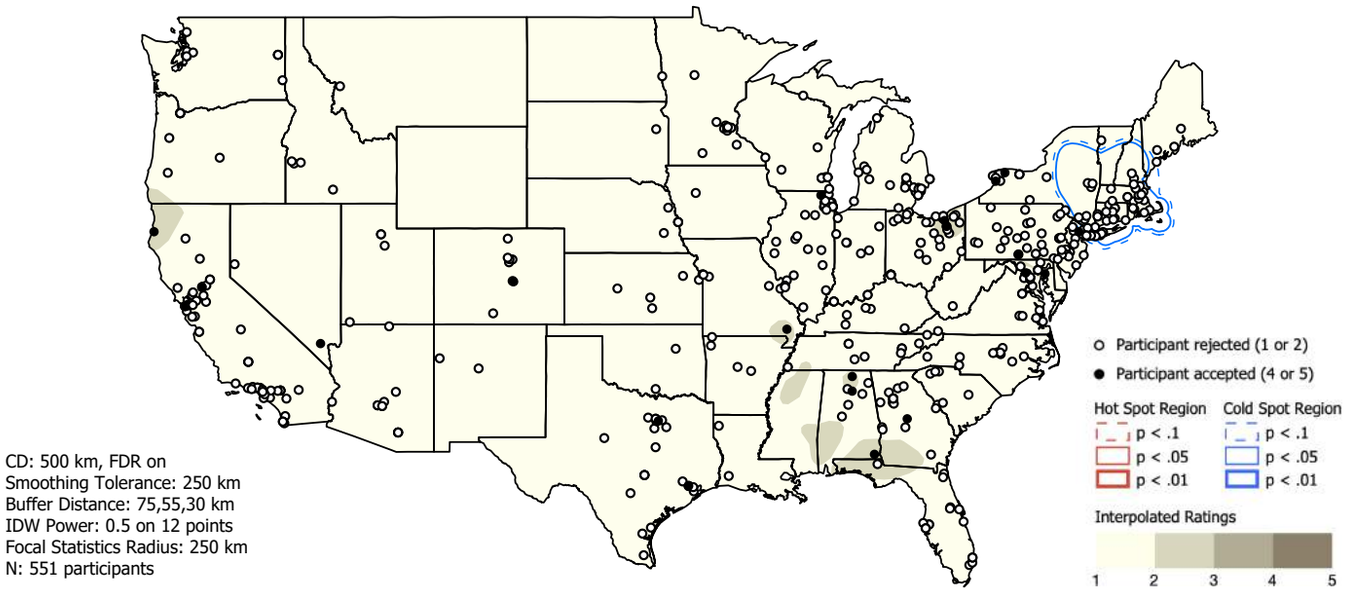
As a matter of curiosity, we included three sentences on Survey 12 to test whether verbal *rather* could take a passive participle complement like *need*, *want*, *like* and *love*. The motiviation was that *would rather* means something close to 'want' or 'prefer', and it was previously observed that for some speakers, *would like* is more natural in the *needs washed* construction than *like* alone. It is interesting in this respect that *would like* often means something more like 'want'.

(27)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1311	This baby would rather carried.	551	1.41	0.83	12
F1312	This baby would have rathered carried.	551	1.35	0.71	12
F1313	This baby would have rather carried.	551	1.42	0.76	12

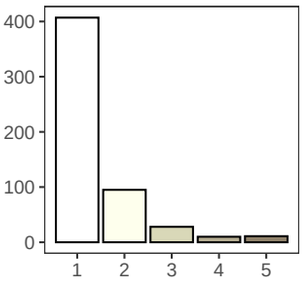
For many speakers, however, *rather* only takes on the volitional meaning and verbal properties in the context of the modal *would* or complex *would have*, so the sentences had to be constructed to meet this requirement. The initial mappings presented here indicate that these sentences are mostly rejected and do not exhibit a regional patterning of the sort that one would would expect if they were participating in the *needs washed* construction.

F1311: "This baby would rather carried."

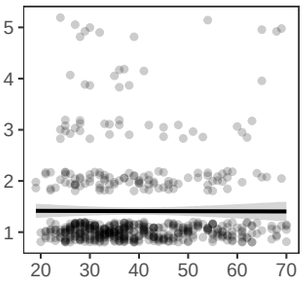


CD: 500 km, FDR on
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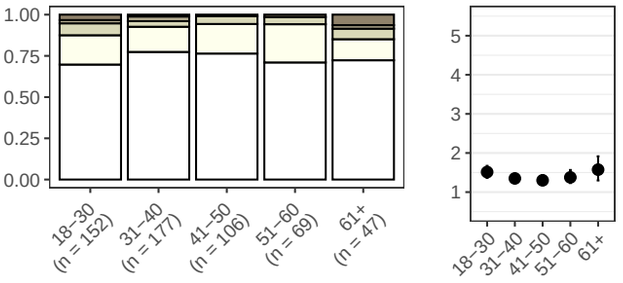
Judgments



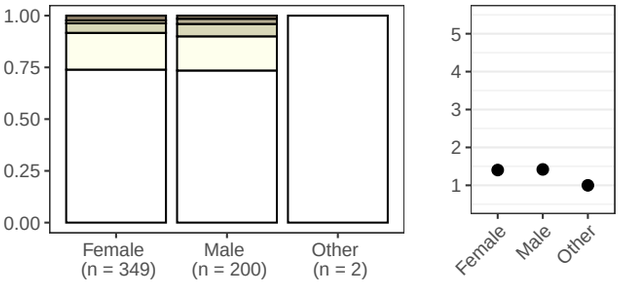
Age



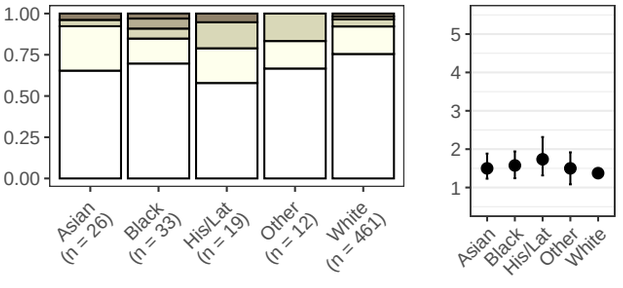
Age groups



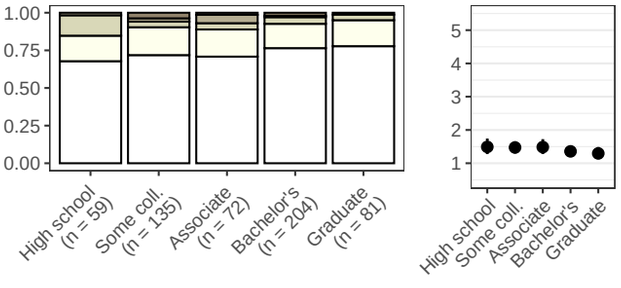
Gender



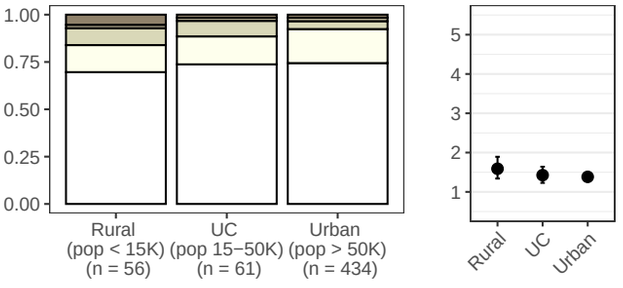
Race



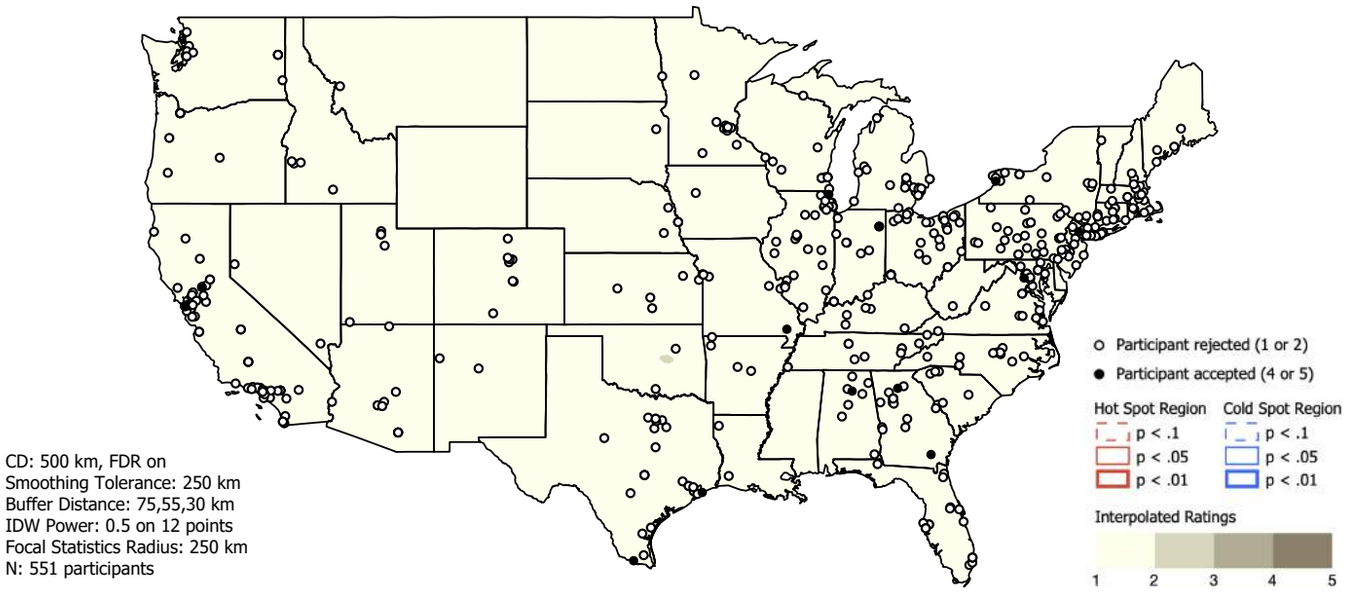
Education



Urban/Rural

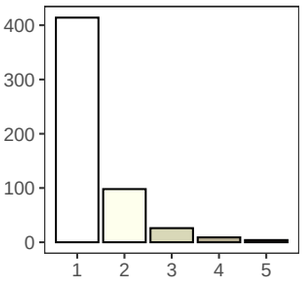


F1312: "This baby would have rathered carried."

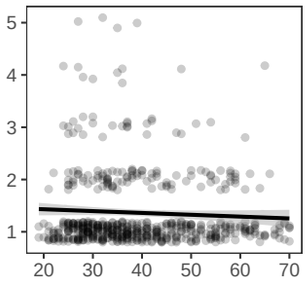


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 551 participants

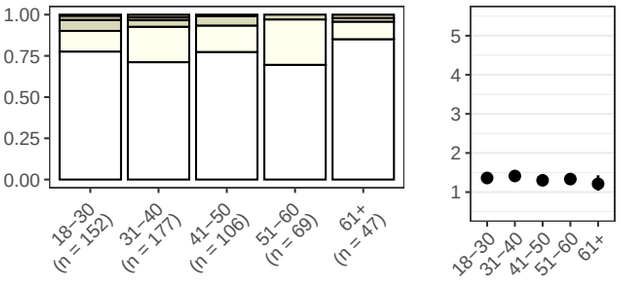
Judgments



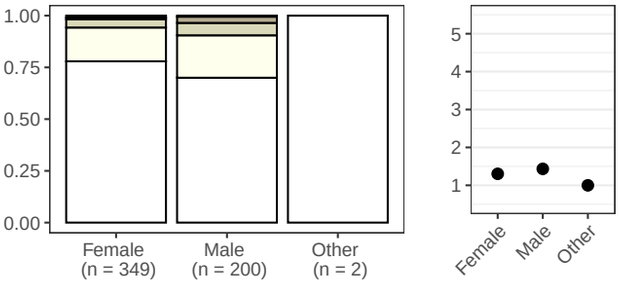
Age



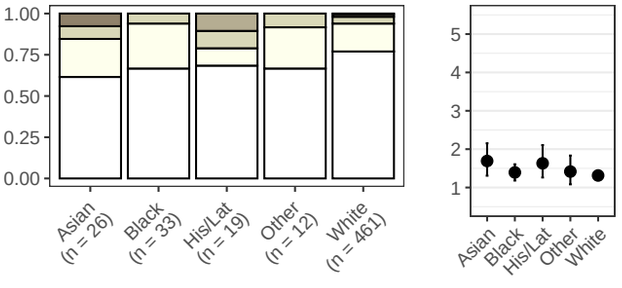
Age groups



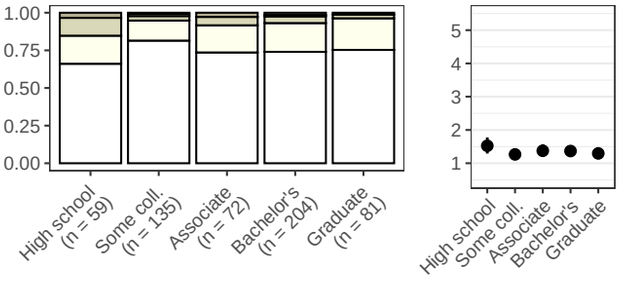
Gender



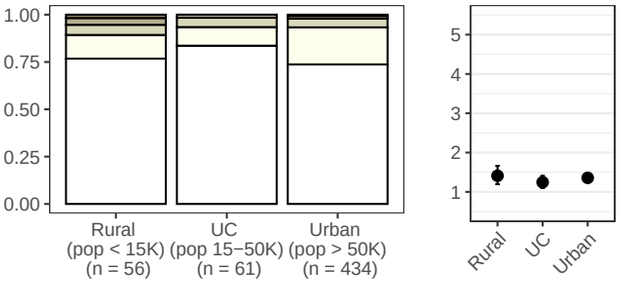
Race



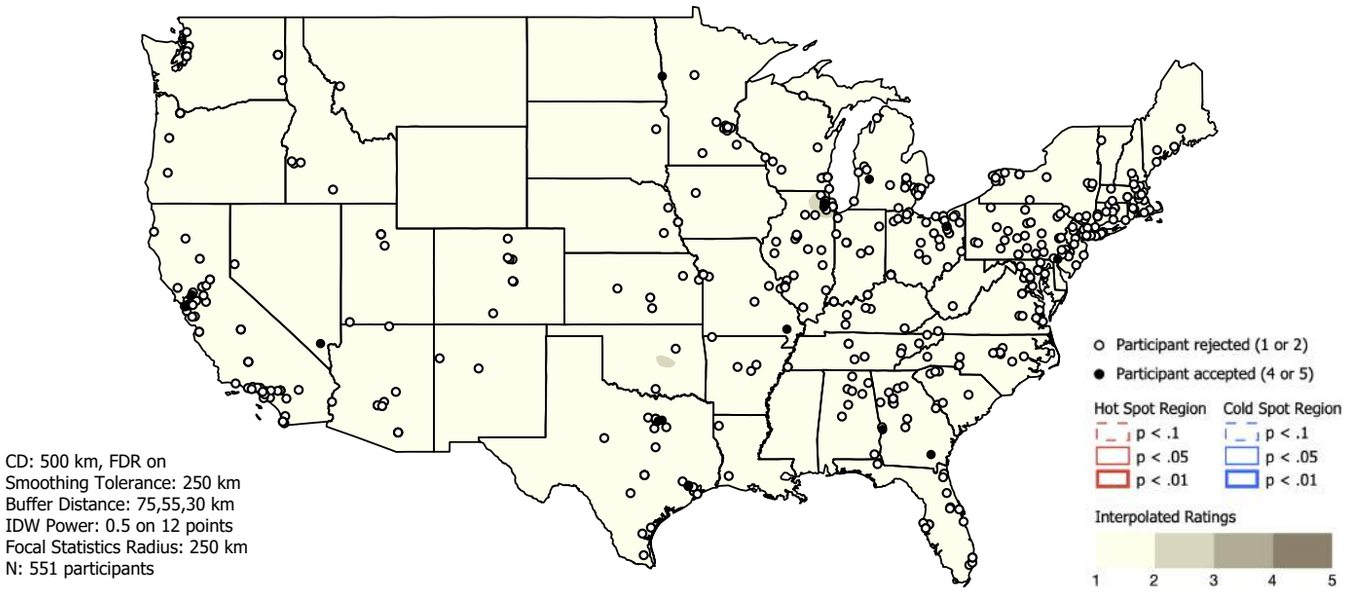
Education



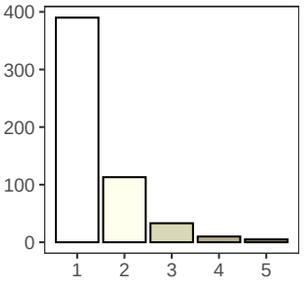
Urban/Rural



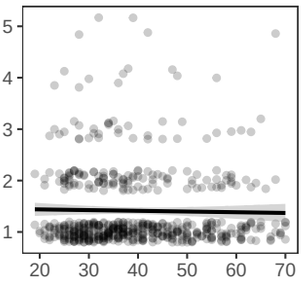
F1313: "This baby would have rather carried."



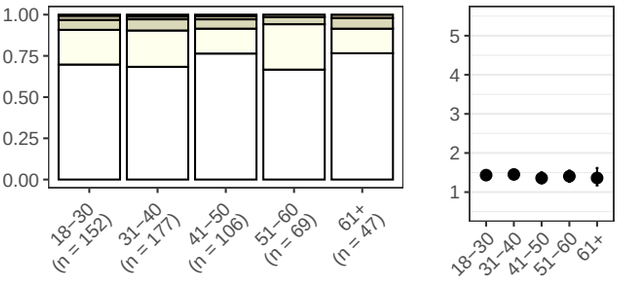
Judgments



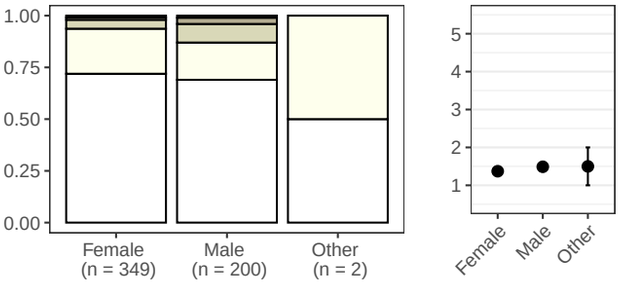
Age



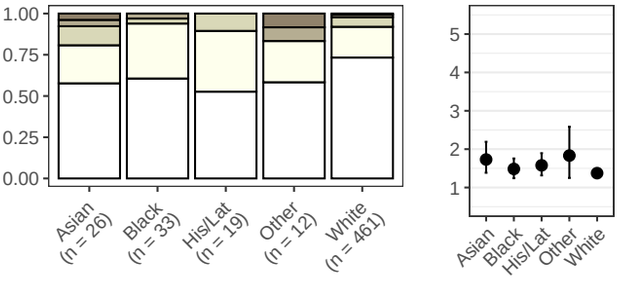
Age groups



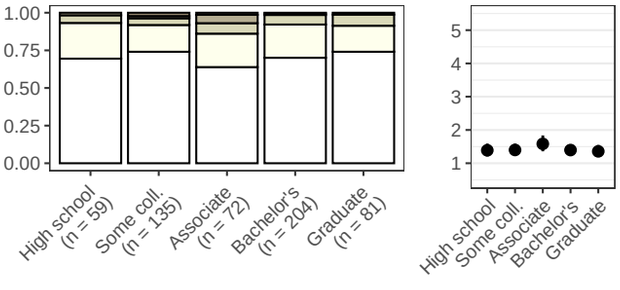
Gender



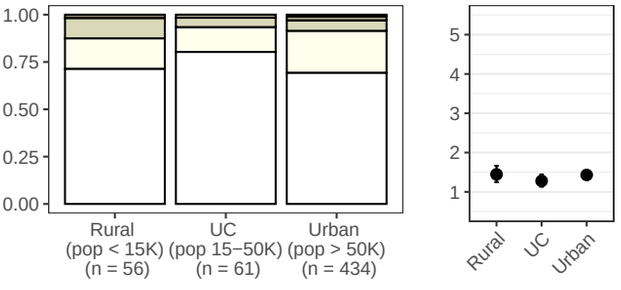
Race



Education



Urban/Rural



8 One-offs: Pilot sentences with one sentence each

The sentences in (28) were included on various pilots, but only with one sentence each. For some of these we had reason to think that they might be regional, but we have not yet conducted detailed investigation.[22] The maps below reveal significant patterns that conform to some extent to our prior expectations. For 1169, we present the non-FDR map as well, since the region picked out as a hot spot region overlaps substantially with the 4–5 zone of interpolation, and matches our hypothesis that contact relatives are characteristic of the South. For 1160 as well, we present the non-FDR map, since the construction was thought to be characteristic of Pittsburgh, PA, and the hot spot region does contain Pittsburgh. However, note that the mean is so low for this highly marked sentence that it is hard to know whether this is a real result or just a coincidence.

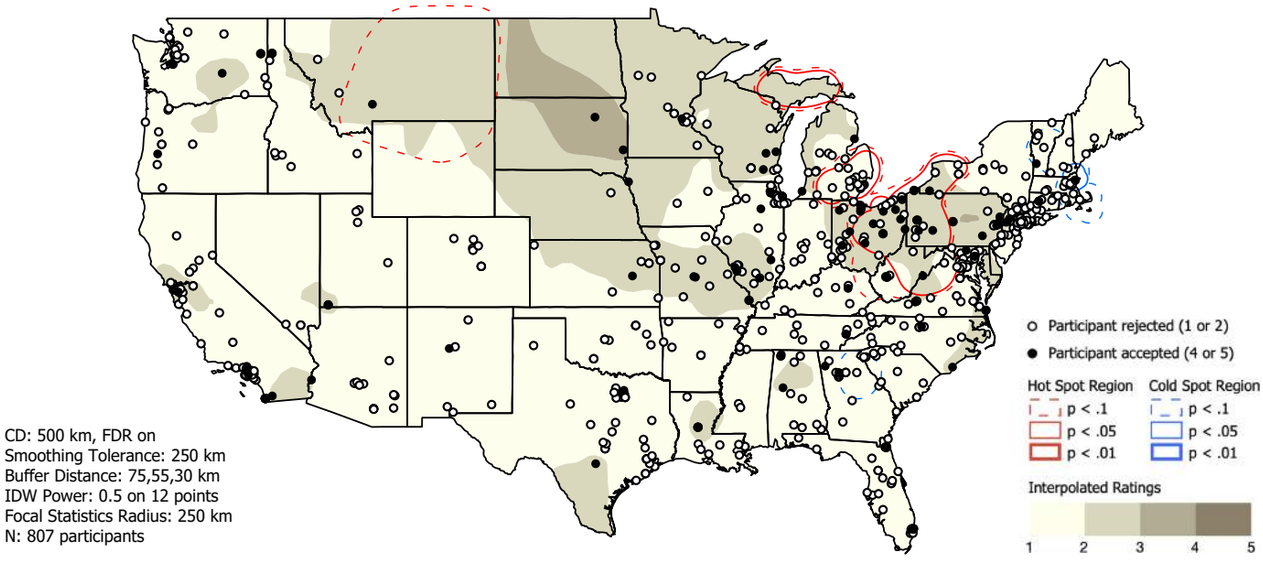
(28)

Sentence	Construction	Sentence text	Responses	Mean	SD	Survey
F1035	All the further	I'm going all the faster I can go.	807	1.82	1.10	9
F1115	Negative inversion	He won't go, and can't nobody make him.	1284	2.76	1.36	6, 9
F1160	Pittsburgh all	The coffee is all, so we need to buy more.	807	1.45	0.86	9
F1161	Null copula	Some of them big, but some of them small.	807	3.00	1.35	9
F1169	Contact relatives	There's a man lives next door.	807	2.53	1.26	9
F1170	Expletive they	They is something bad wrong with her.	807	1.70	1.12	9
F1174	Pittsburgh down	She works down Walmart.	807	1.78	1.03	9

[22] A map of 1174 is also presented in McCoy (2019:2).

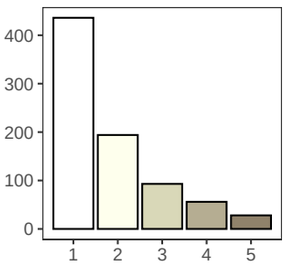
8.1 All the further

F1035: "I'm going all the faster I can go."

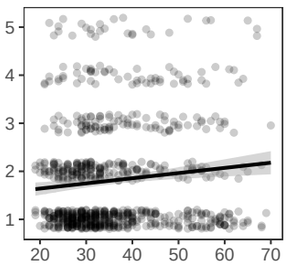


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

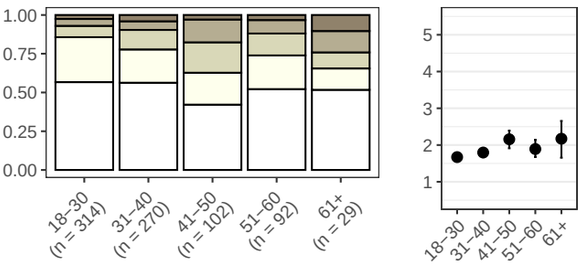
Judgments



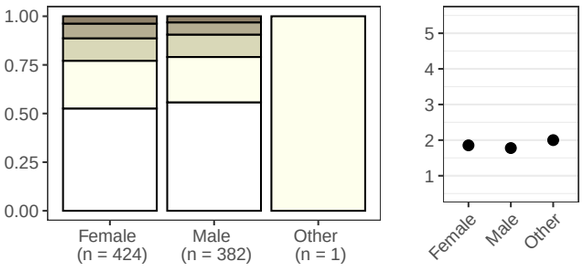
Age



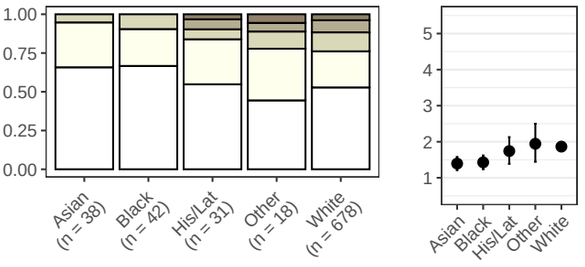
Age groups



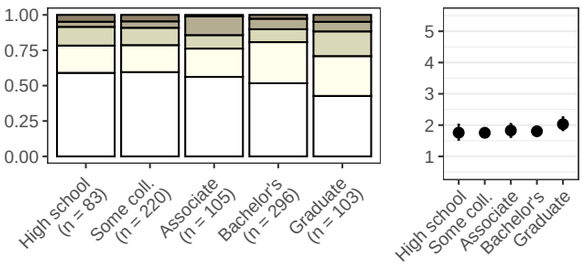
Gender



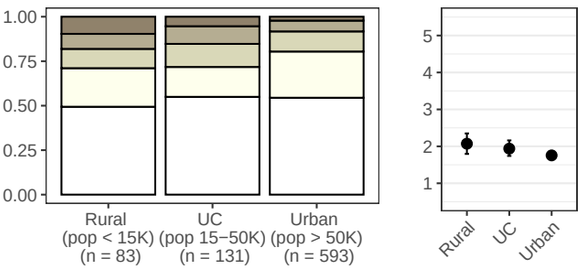
Race



Education

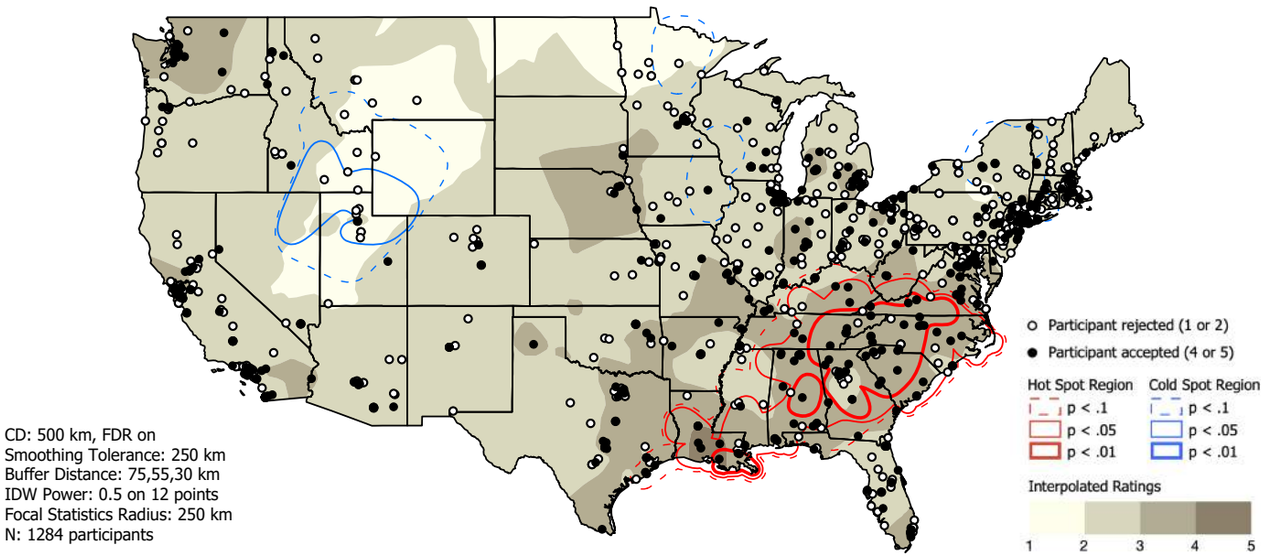


Urban/Rural

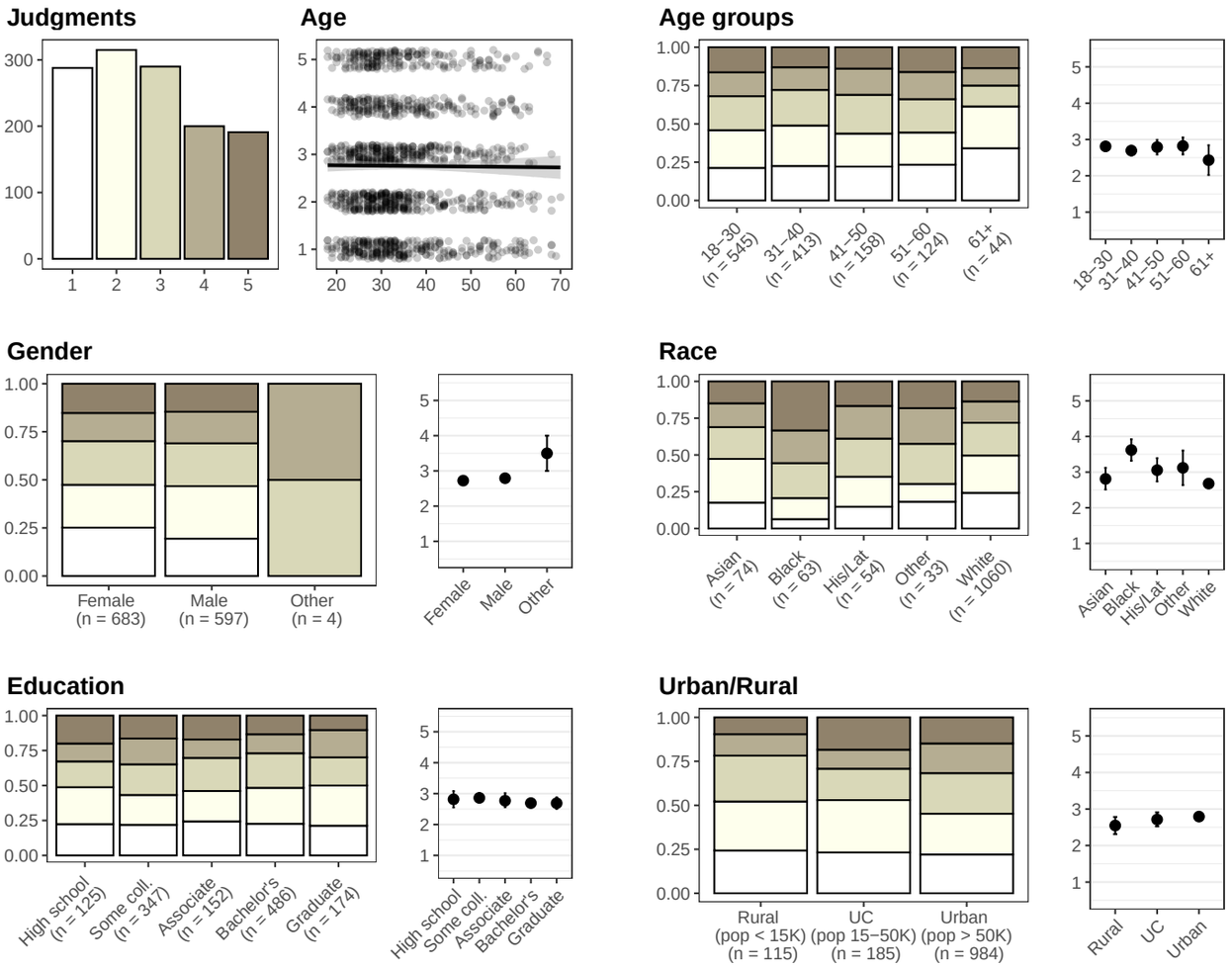


8.2 Negative inversion

F1115: "He won't go, and can't nobody make him."

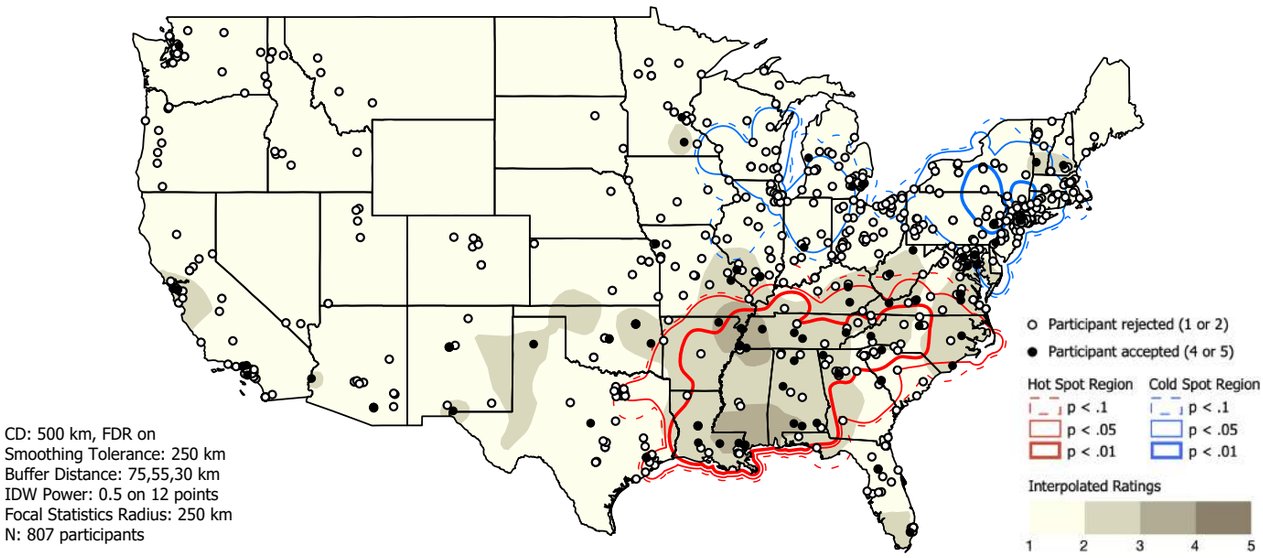


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1284 participants



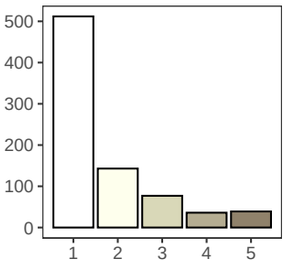
8.3 Expletive *they*

F1170: "They is something bad wrong with her."

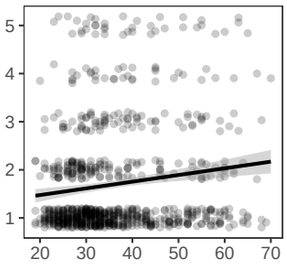


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

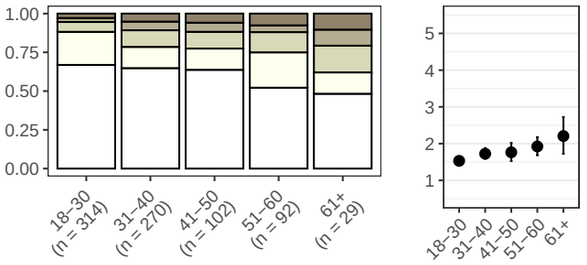
Judgments



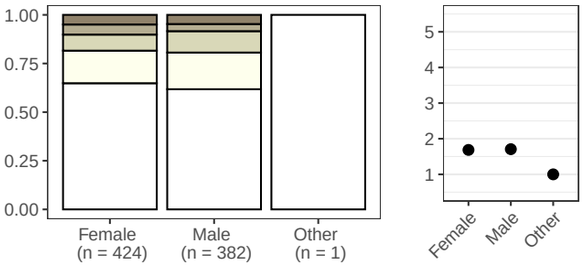
Age



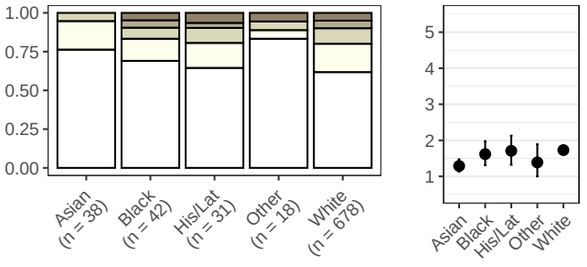
Age groups



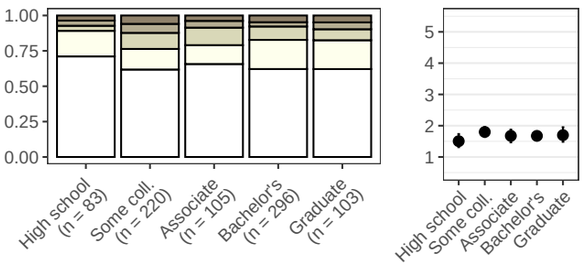
Gender



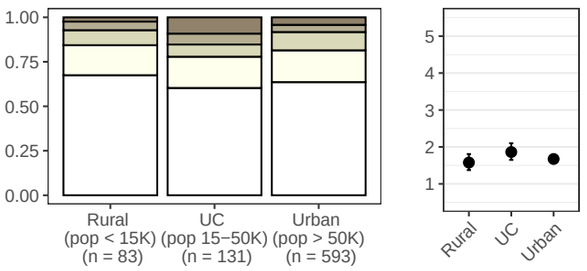
Race



Education

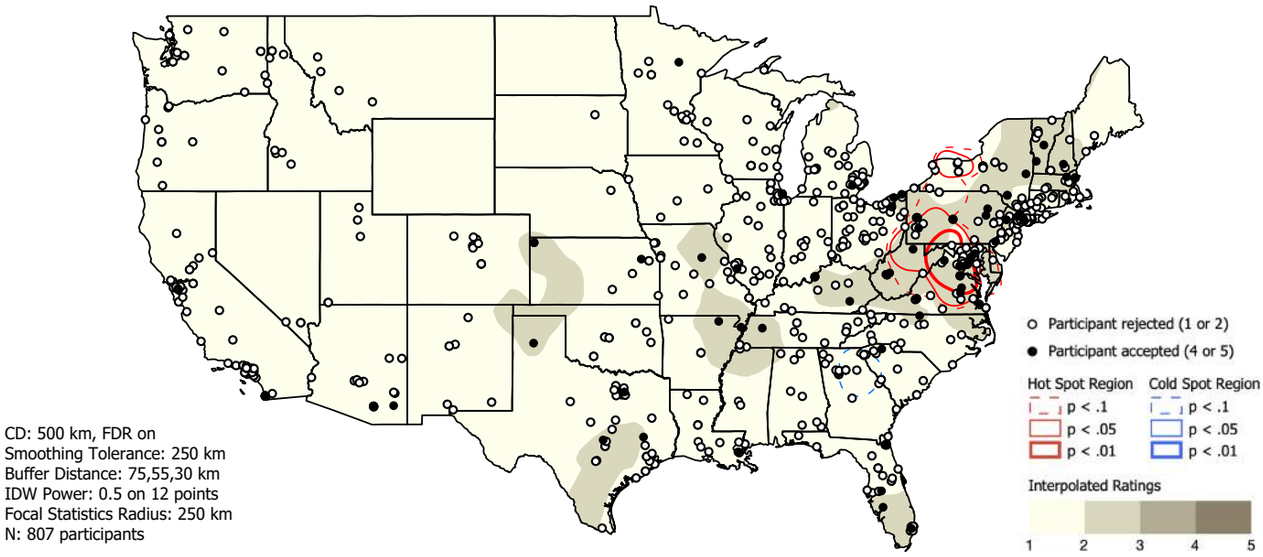


Urban/Rural



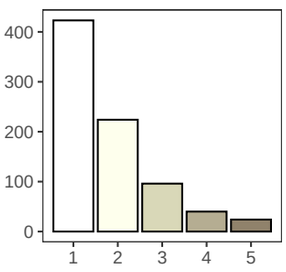
8.4 Touch *down*

F1174: "She works down Walmart."

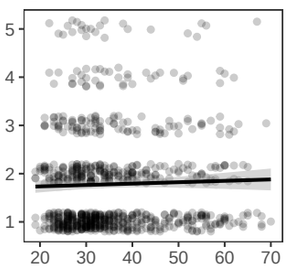


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

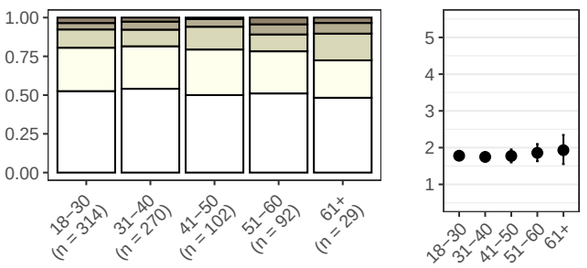
Judgments



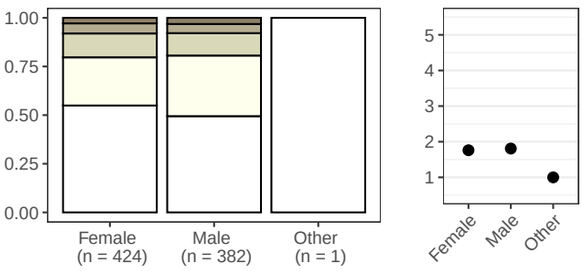
Age



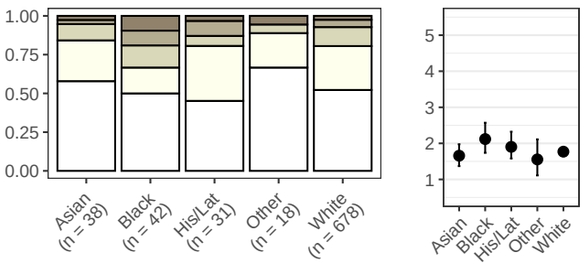
Age groups



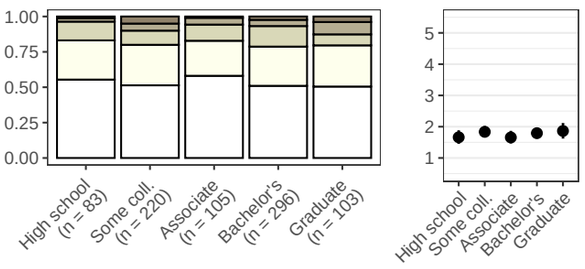
Gender



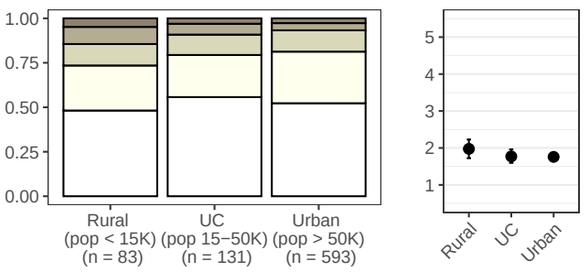
Race



Education



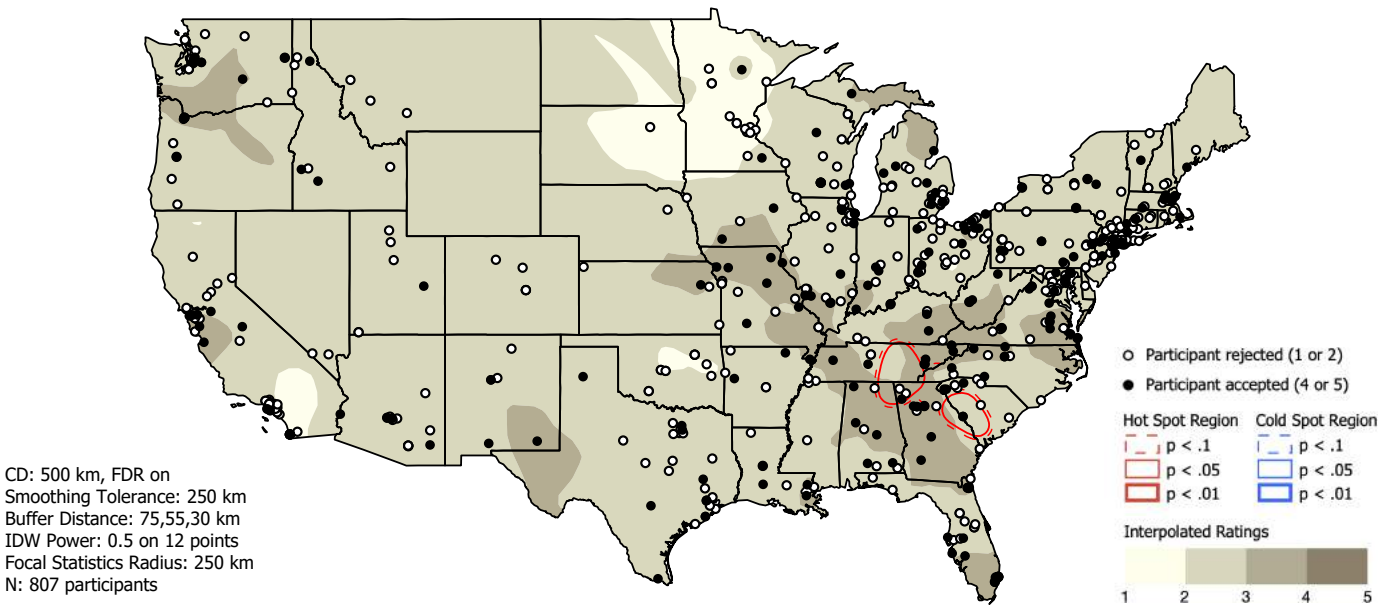
Urban/Rural



8.5 Contact relatives

With FDR Correction

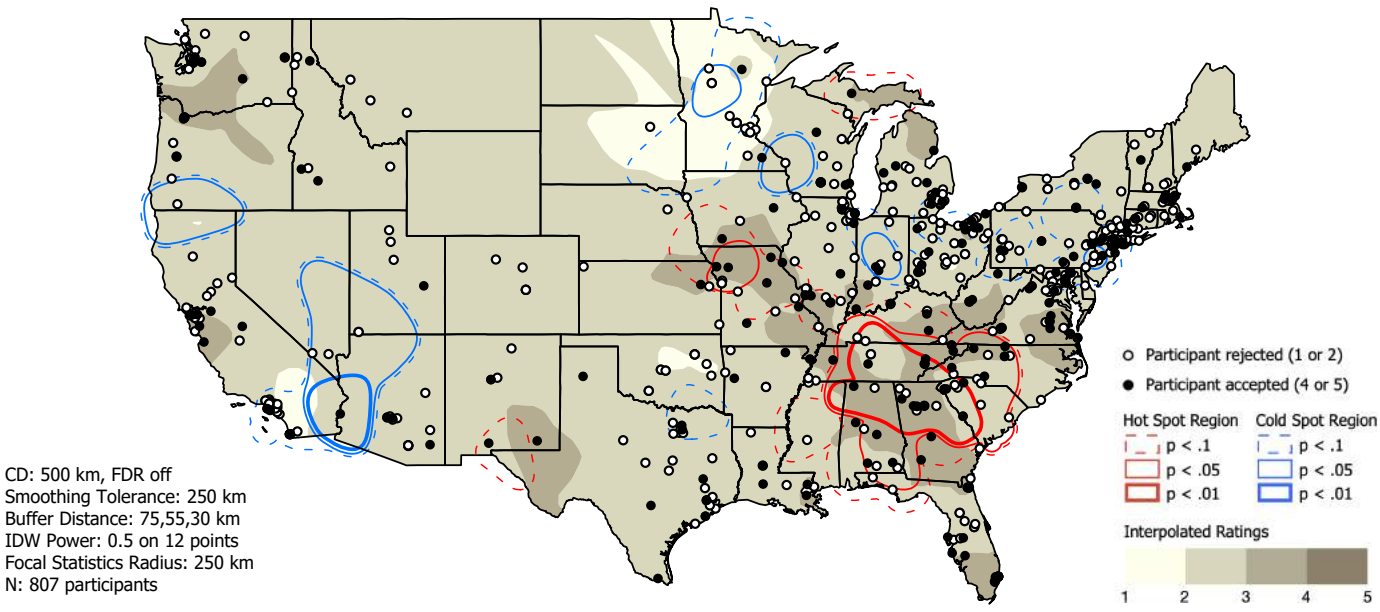
F1169: "There's a man lives next door."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

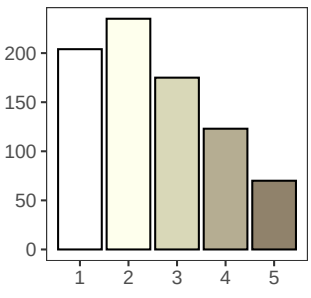
Without FDR Correction: Interpret with caution

F1169: "There's a man lives next door."

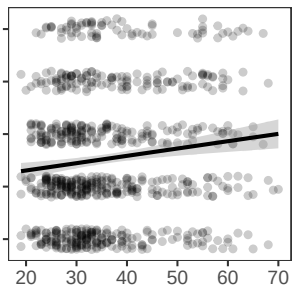


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

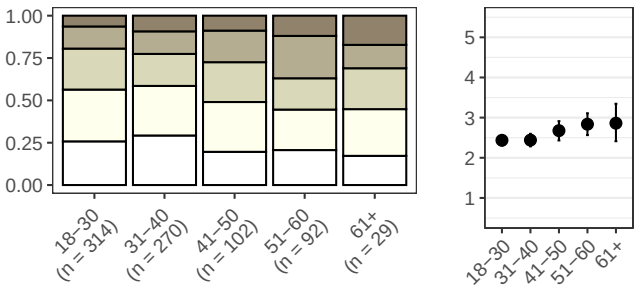
Judgments



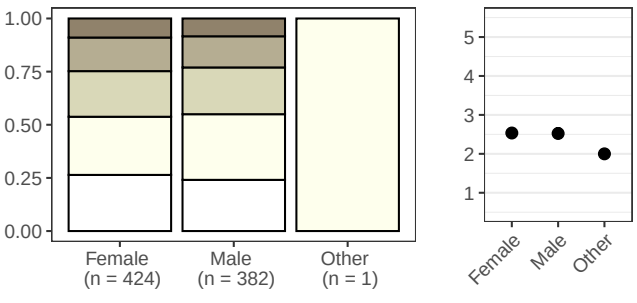
Age



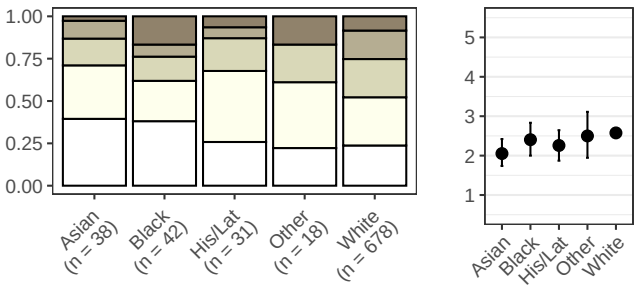
Age groups



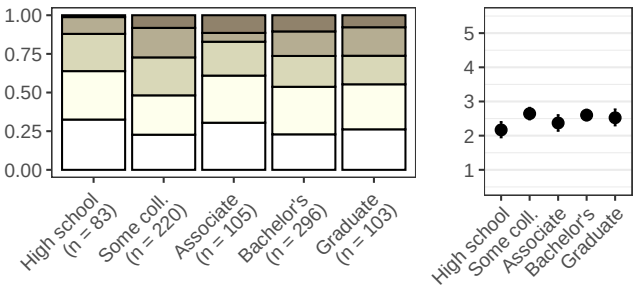
Gender



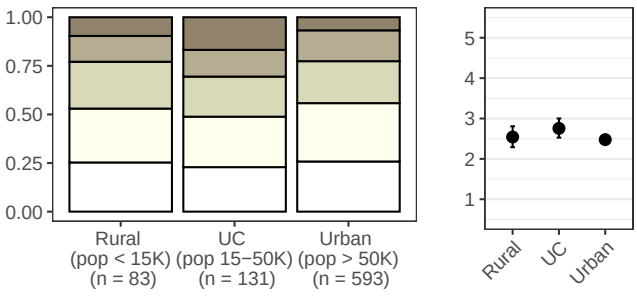
Race



Education



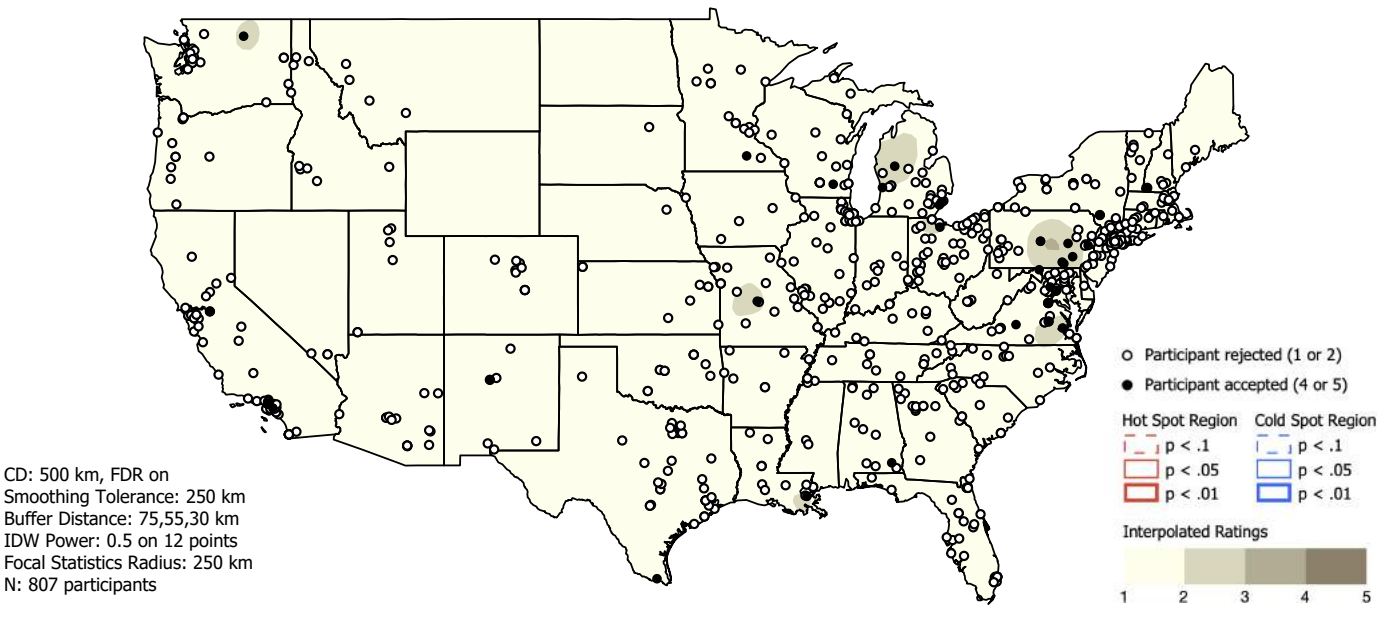
Urban/Rural



8.6 Pittsburgh *all*

With FDR Correction

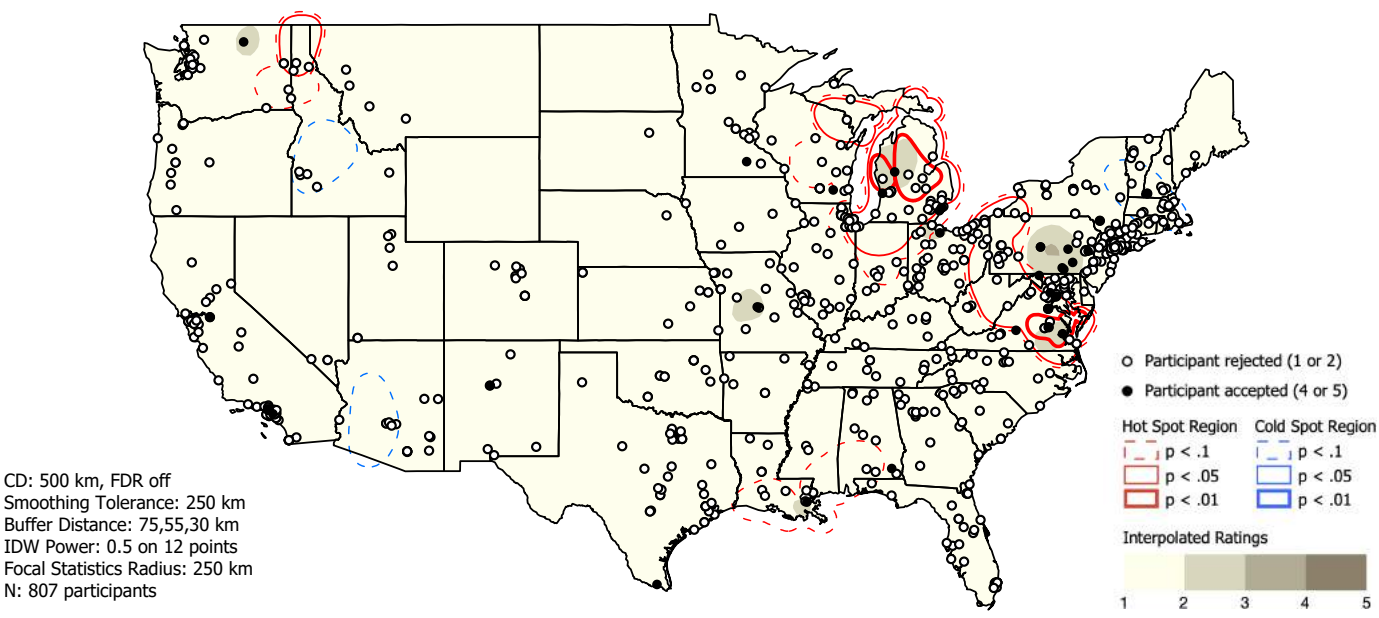
F1160: "The coffee is all, so we need to buy more."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

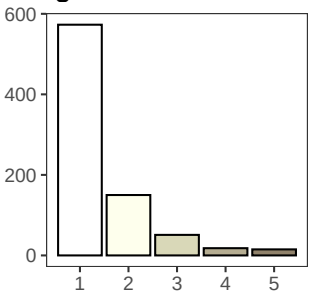
Without FDR Correction: Interpret with caution

F1160: "The coffee is all, so we need to buy more."

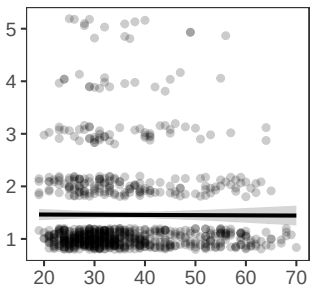


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

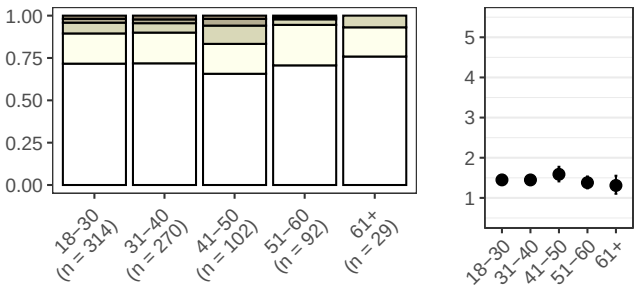
Judgments



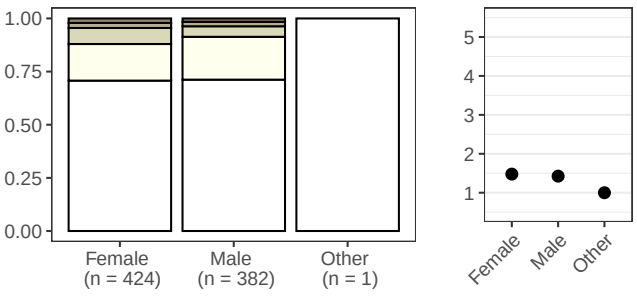
Age



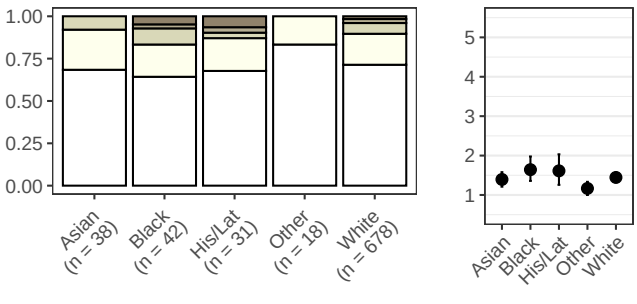
Age groups



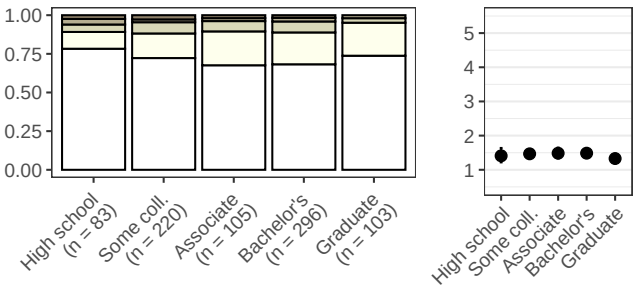
Gender



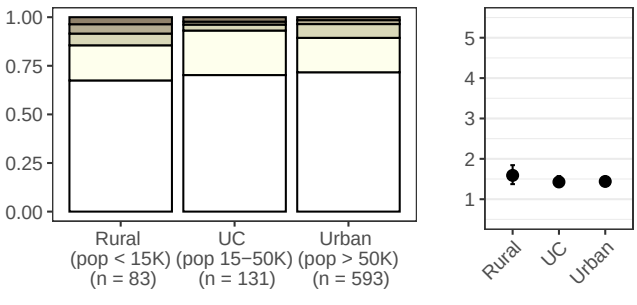
Race



Education



Urban/Rural



9 Non-polarity (aka "Positive") *anymore*

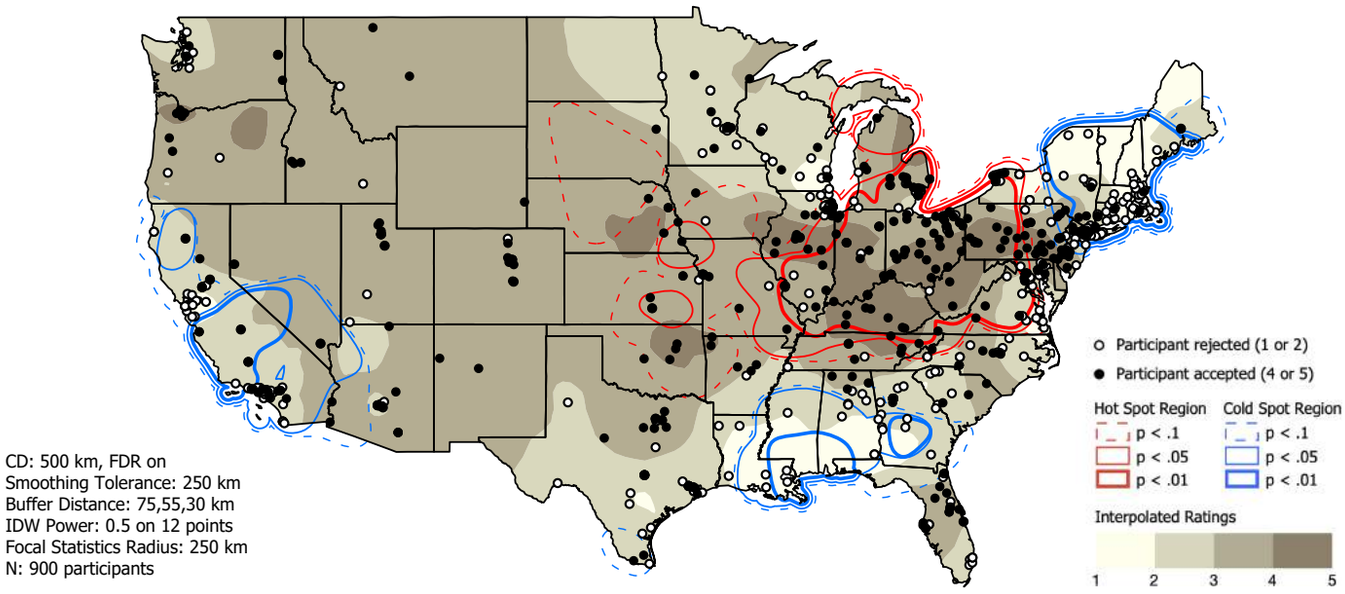
The nonpolarity *anymore* sentences in (29) (often referred to as "positive *anymore*") were included on both Surveys 11 and 12, due mostly to Larry Horn's specific interest in this construction. Therefore, we have more data on this than any of the other sets of Survey 11 sentences.

(29)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1226	Football is more popular than baseball anymore.	900	2.94	1.54	11, 12
F1227	It's expensive to fly first-class anymore.	900	3.48	1.52	11, 12
F1228	It's great to fly first-class anymore.	899	2.53	1.42	11, 12
F1229	Anymore he watches what he eats.	900	2.32	1.47	11, 12
F1230	Anymore he's spending too much time on Facebook	899	2.44	1.51	11, 12

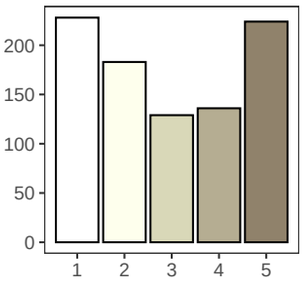
Different versions of our maps of these sentences were presented at the 2020 American Dialect Society meeting. Those maps and the ones below show fairly clear "midlands-like" regional patterns, and patterns of markedness go as predicted, so that 1228 is more marked than 1227, and both the initial-anymore sentences are more marked than the rest. The results also confirmed that the construction is most rejected in the Northeast.

F1226: "Football is more popular than baseball anymore."

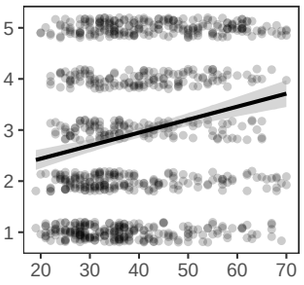


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 900 participants

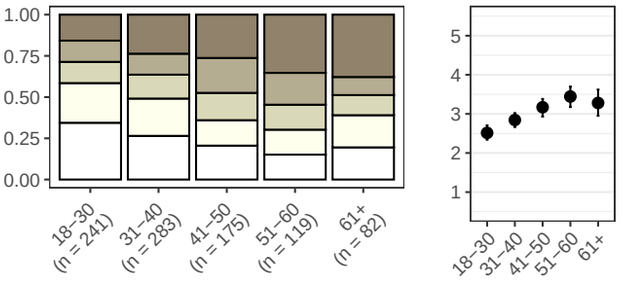
Judgments



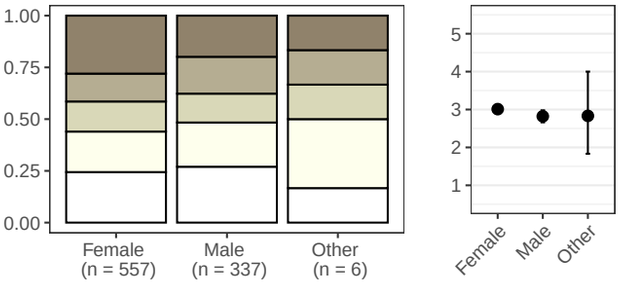
Age



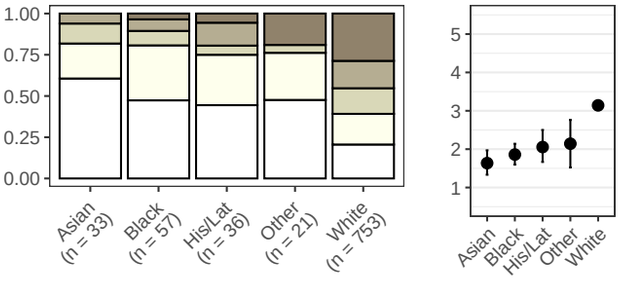
Age groups



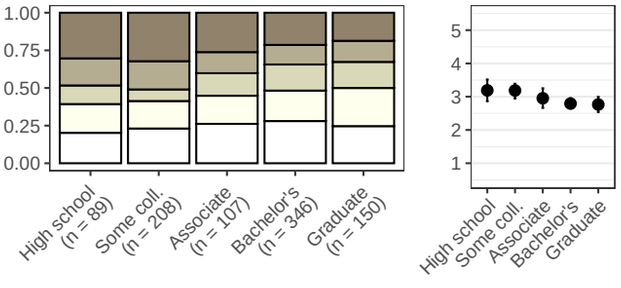
Gender



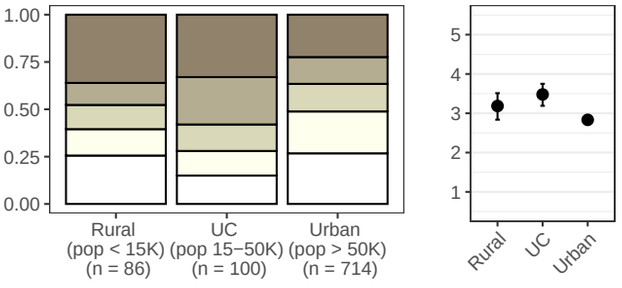
Race



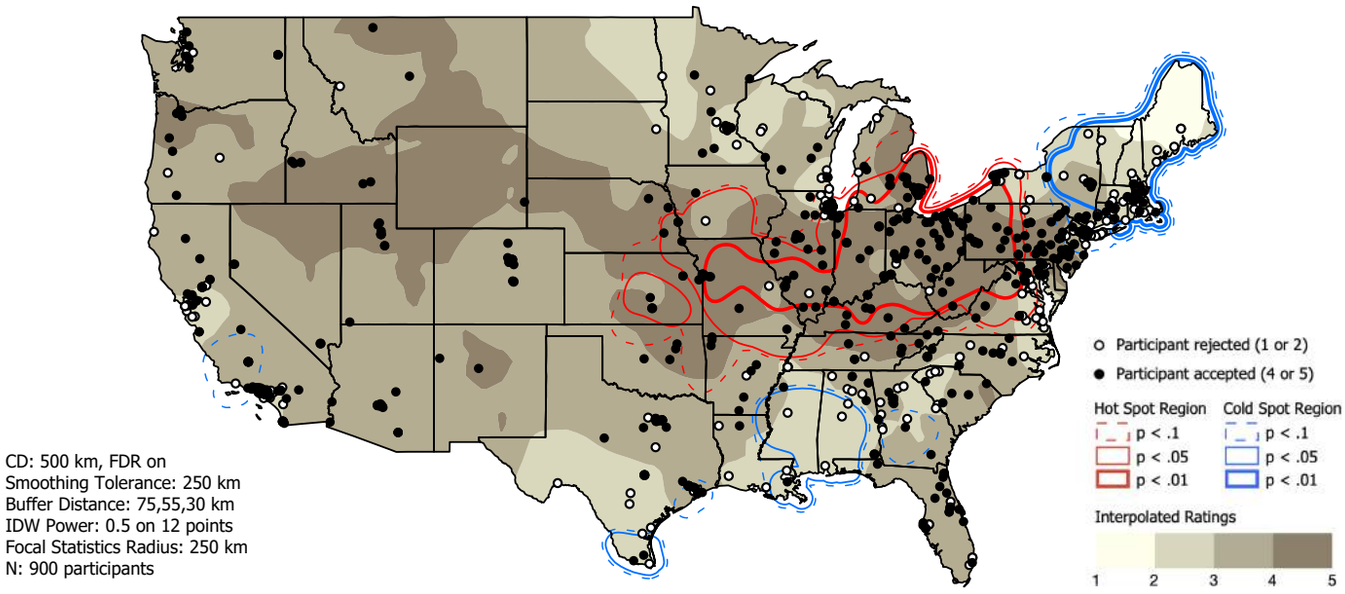
Education



Urban/Rural

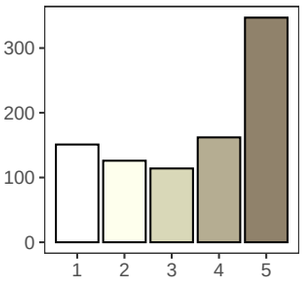


F1227: "It's expensive to fly first-class anymore."

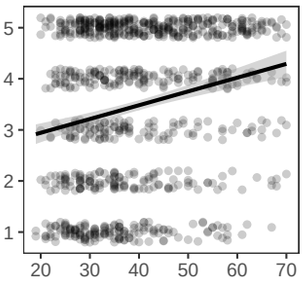


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 900 participants

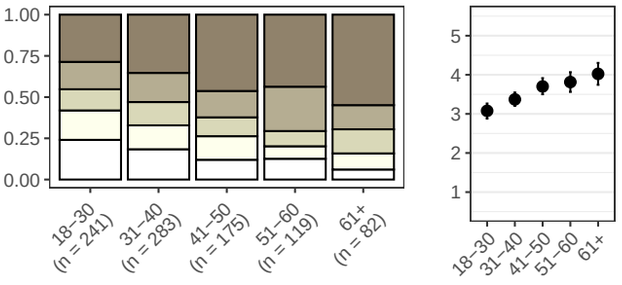
Judgments



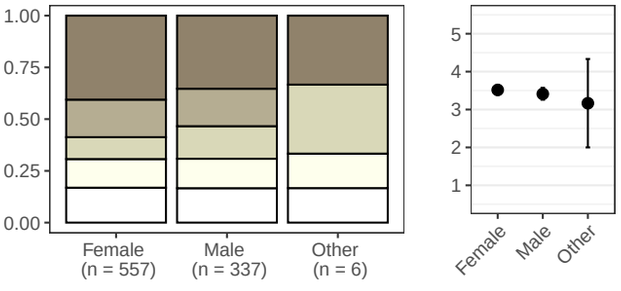
Age



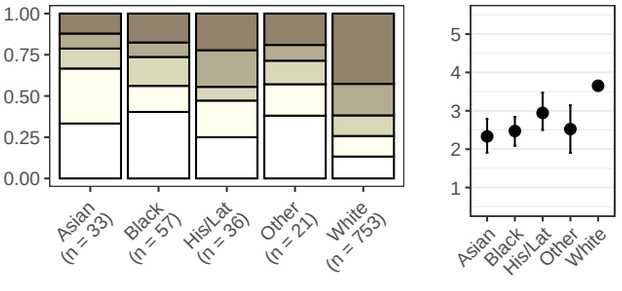
Age groups



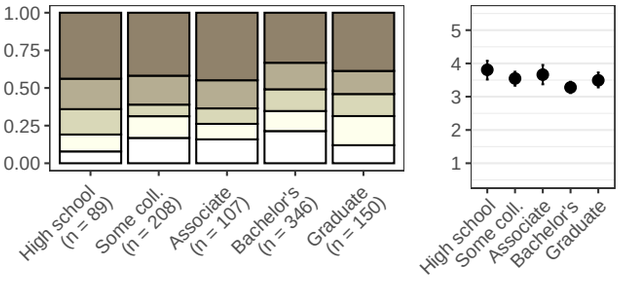
Gender



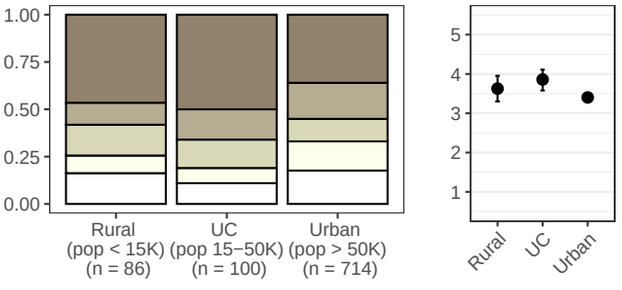
Race



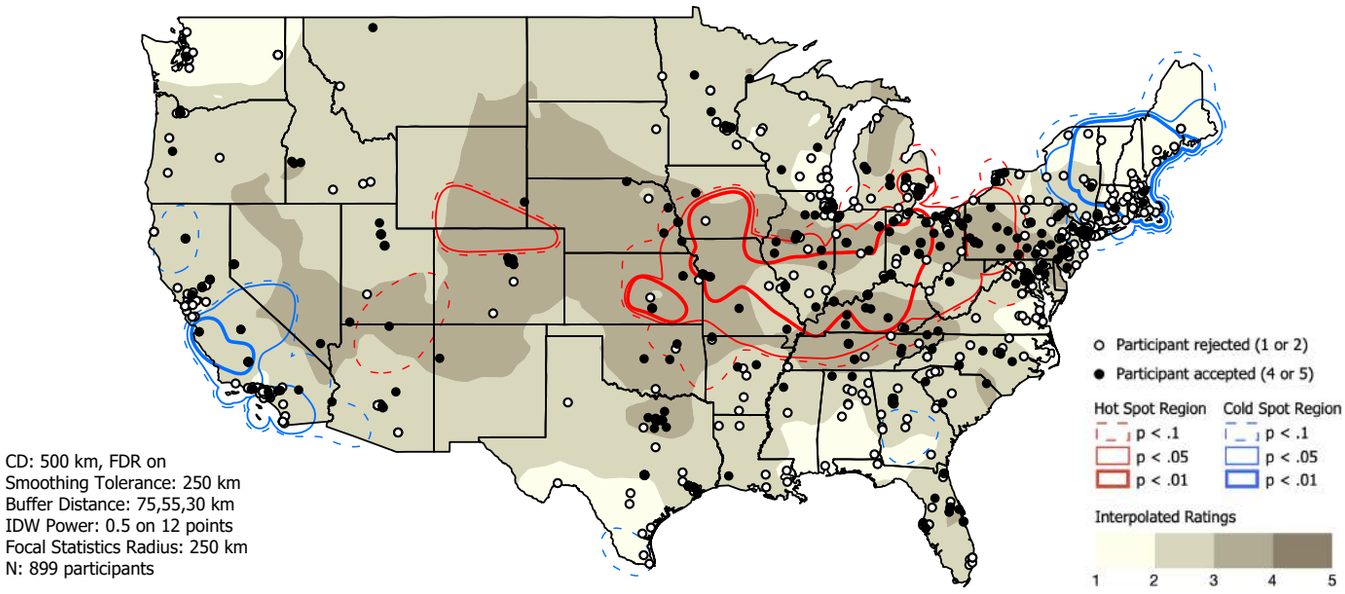
Education



Urban/Rural

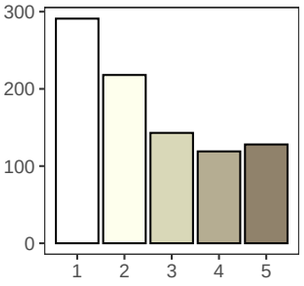


F1228: "It's great to fly first-class anymore."

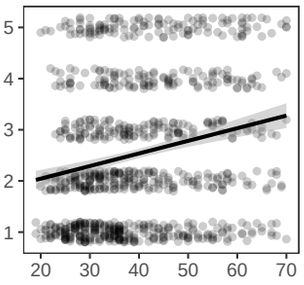


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 899 participants

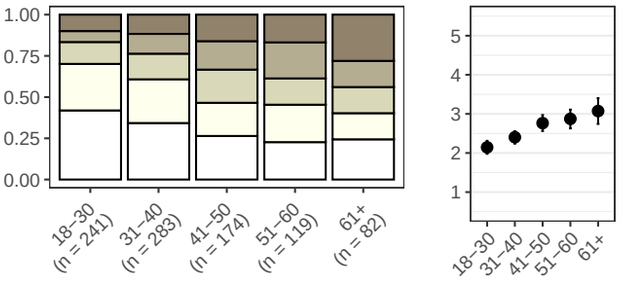
Judgments



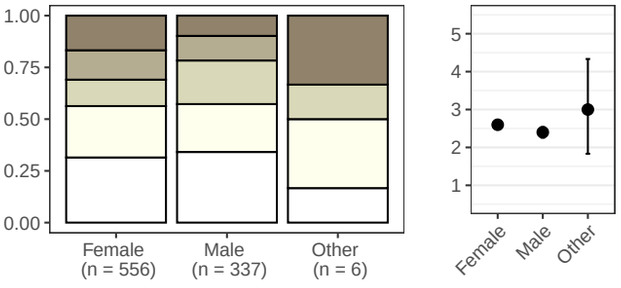
Age



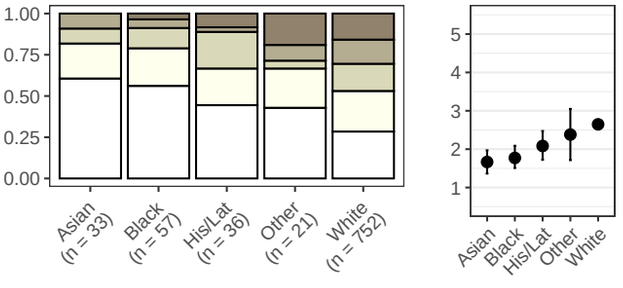
Age groups



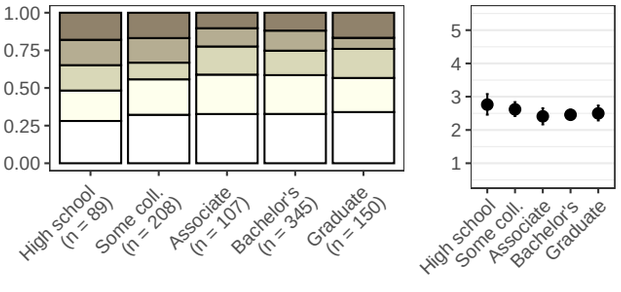
Gender



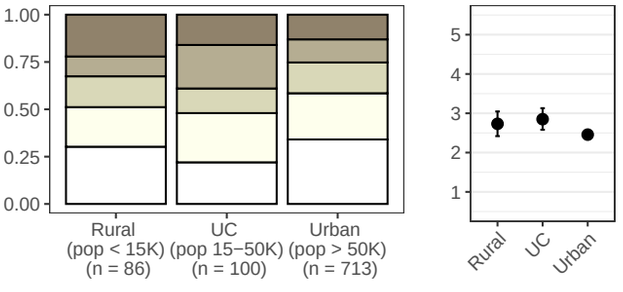
Race



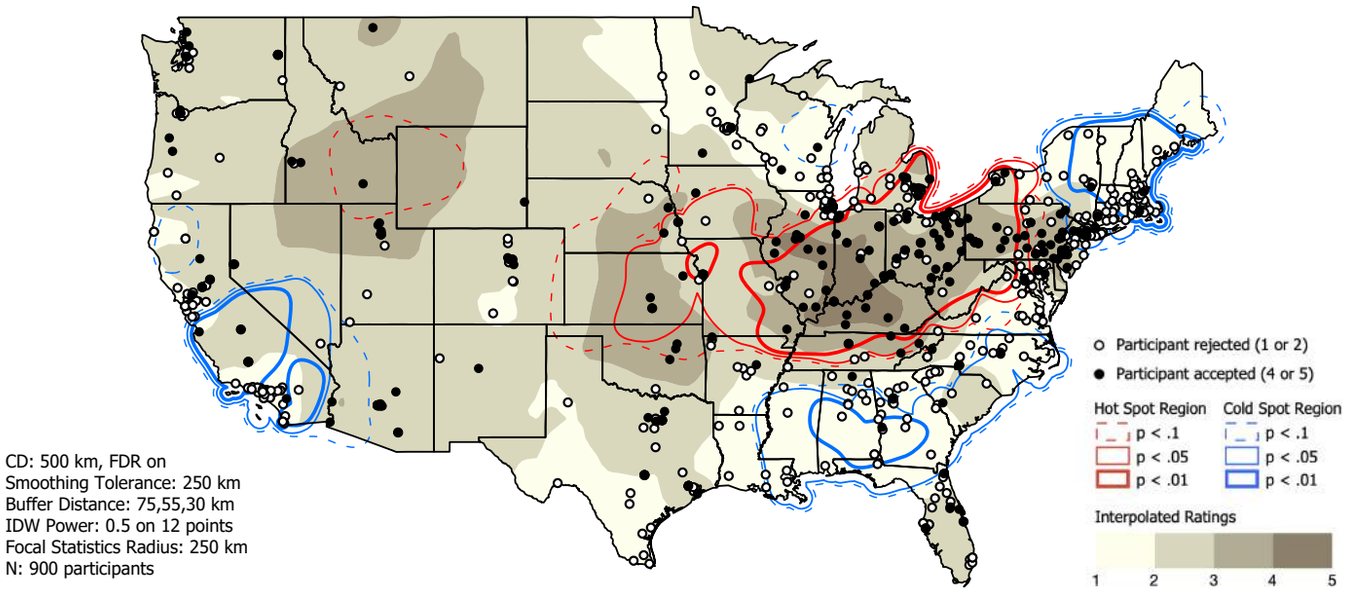
Education



Urban/Rural

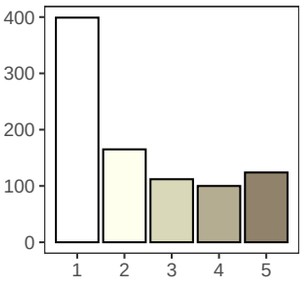


F1229: "Anymore he watches what he eats."

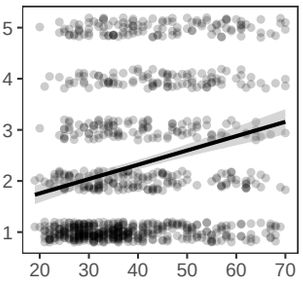


CD: 500 km, FDR on
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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 900 participants

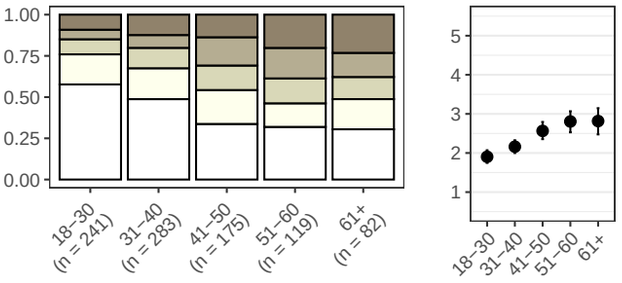
Judgments



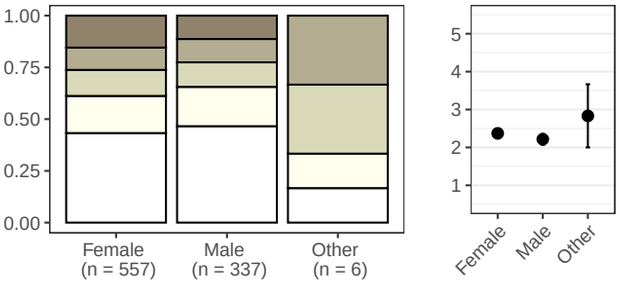
Age



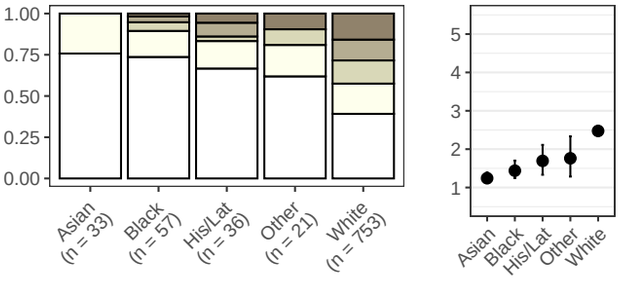
Age groups



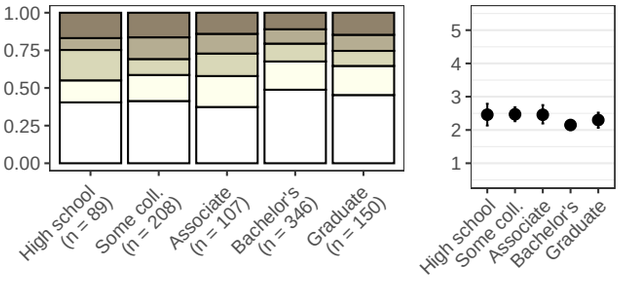
Gender



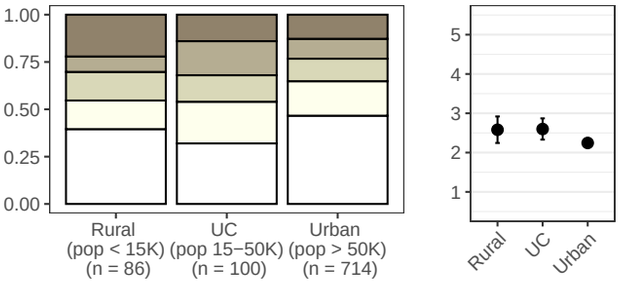
Race



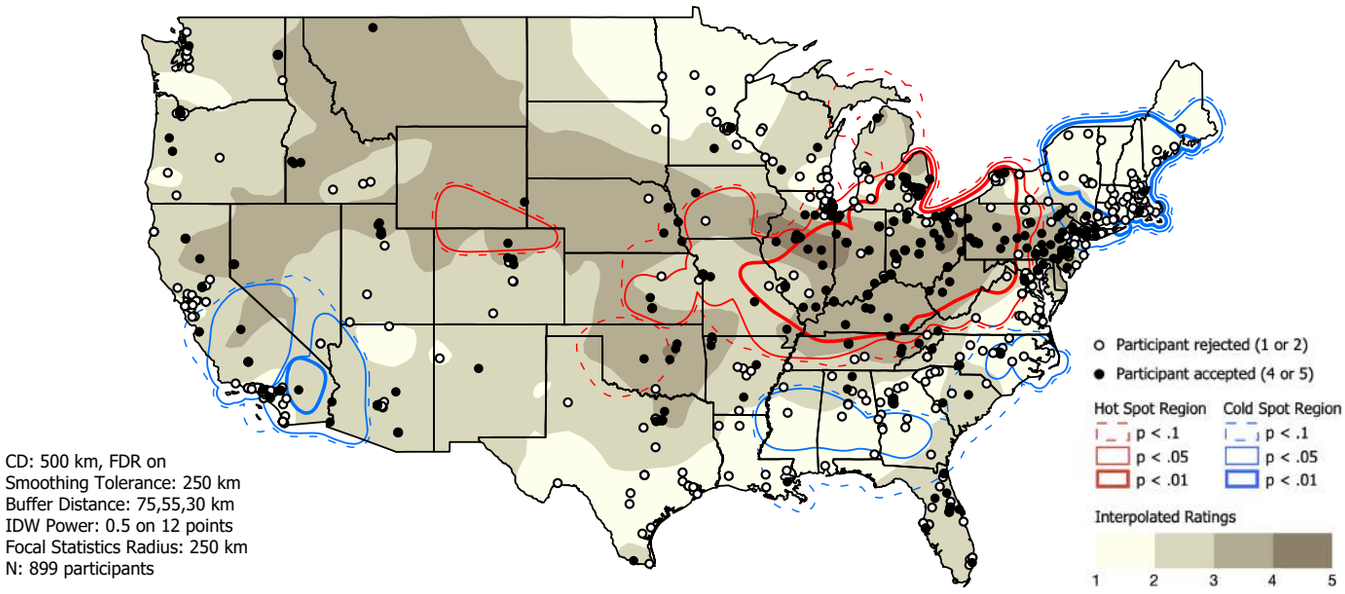
Education



Urban/Rural

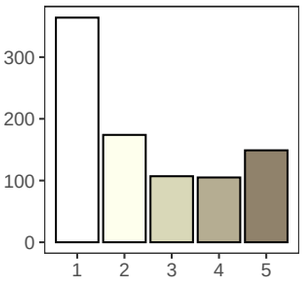


F1230: "Anymore he's spending too much time on Facebook"

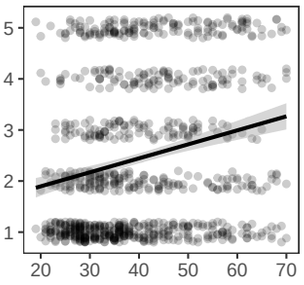


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 899 participants

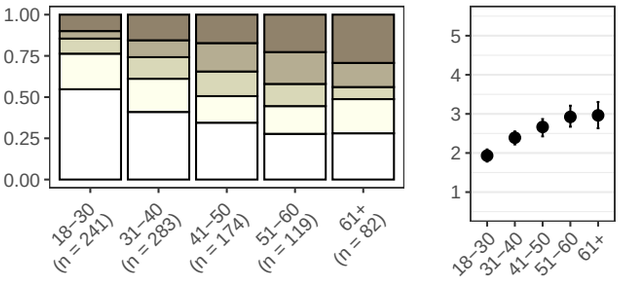
Judgments



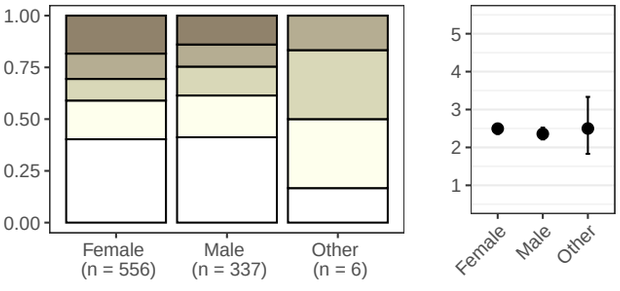
Age



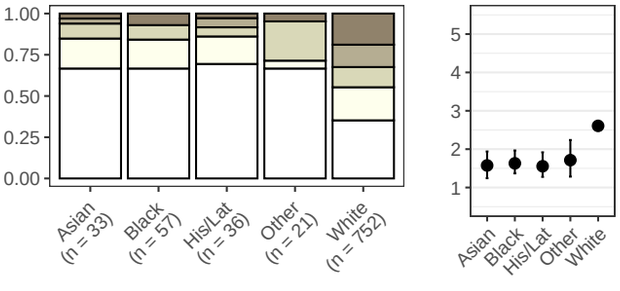
Age groups



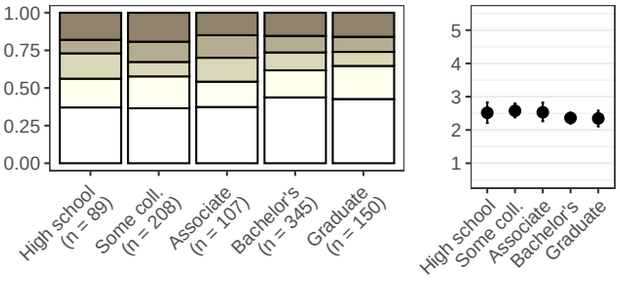
Gender



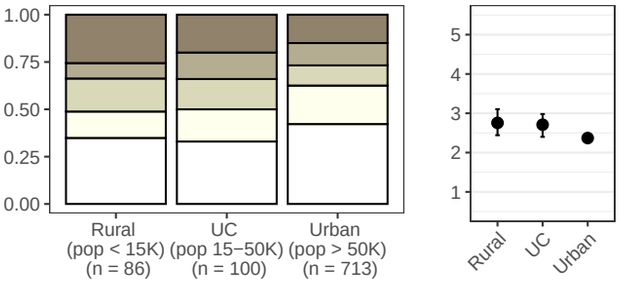
Race



Education



Urban/Rural



10 Split Subjects

The Split Subjects construction was originally intended to be a larger part of our primary survey questions than it ended up being (although see Wood et al. 2015a for some analysis).

(30)

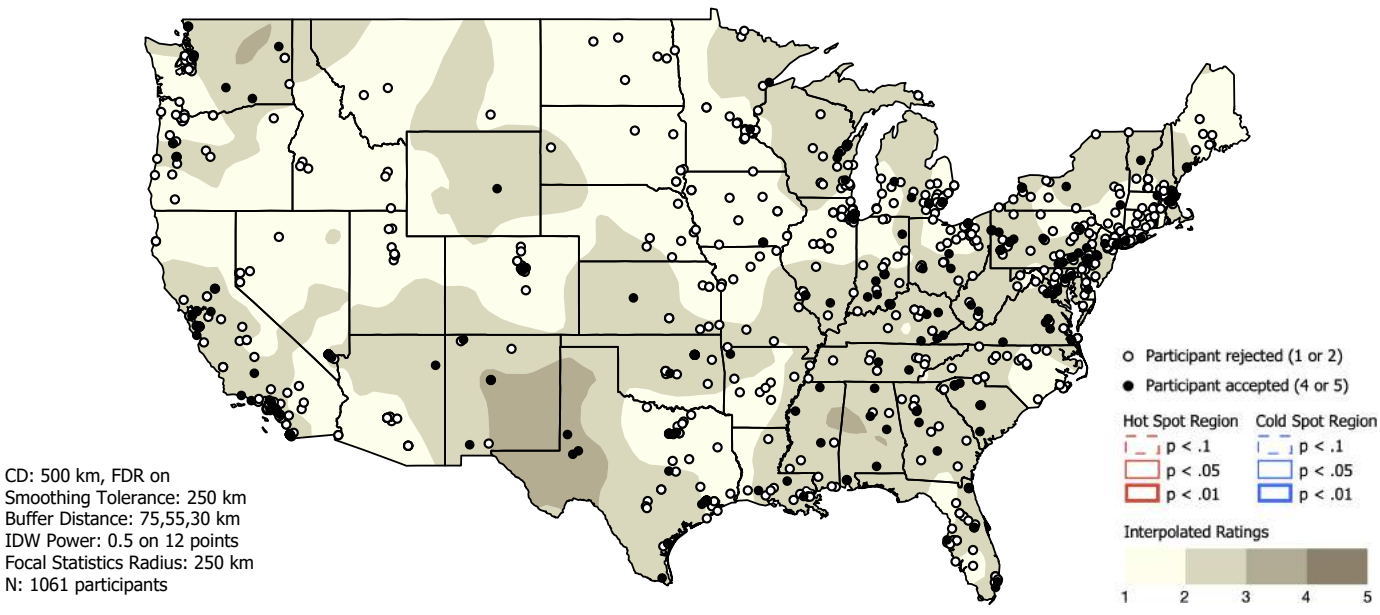
Sentence	Sentence text	Responses	Mean	SD	Survey
F1034	They didn't any of them want to go out.	1061	2.11	1.24	5, 5b
F1038	But those people won't any of them fight fair.	1063	1.94	1.10	5, 5b
F1072.1	The students don't any of them like these books.	698	1.76	1.00	5b
F1073.1	They don't any of them like these books.	698	1.92	1.14	5b
F1074	We don't any of us tell the truth all the time.	1062	2.09	1.25	5, 5b
F1075	We don't any of us politicians tell the truth all the time.	1063	1.79	1.10	5, 5b
F1076	They won't any of the kids tell the truth.	1062	1.74	1.02	5, 5b
F1077	They won't any of them tell the truth.	1062	2.23	1.27	5, 5b
F1072	The students don't any of them need any advice anymore, because they've been going to school for two years.	364	1.90	1.06	5
F1073	They don't any of them need any advice anymore, because they've been going to school for two years.	364	2.04	1.16	5

We originally expected a strong regional pattern, since it has been reported to be characteristic of Southern dialects such as Smoky Mountain English (Montgomery and Hall 2004), and we originally expected the split subjects to be restricted to pronouns in both the subject position and in the partitive phrase. However, the regional pattern turned out somewhat weaker than we expected (though still significant in many cases), and more importantly for our original research purposes, the sentences that were not restricted to pronouns were judged acceptable by many speakers. For these reasons, we did not pursue the topic in as much detail as we originally intended to.[23] However, further analysis on the larger dataset may reveal interesting correlations and geographic variation that would be worth pursuing further. Note that for this construction, we present the maps with and without the FDR correction, since many of the non-FDR maps show hot spot regions in more or less the areas where we would have expected them. This suggests that even if it is a weak pattern, it may be a real one.

[23] This is not meant to imply that the construction is not theoretically interesting; quite the opposite. It is only that many of our original research questions did not apply.

With FDR Correction

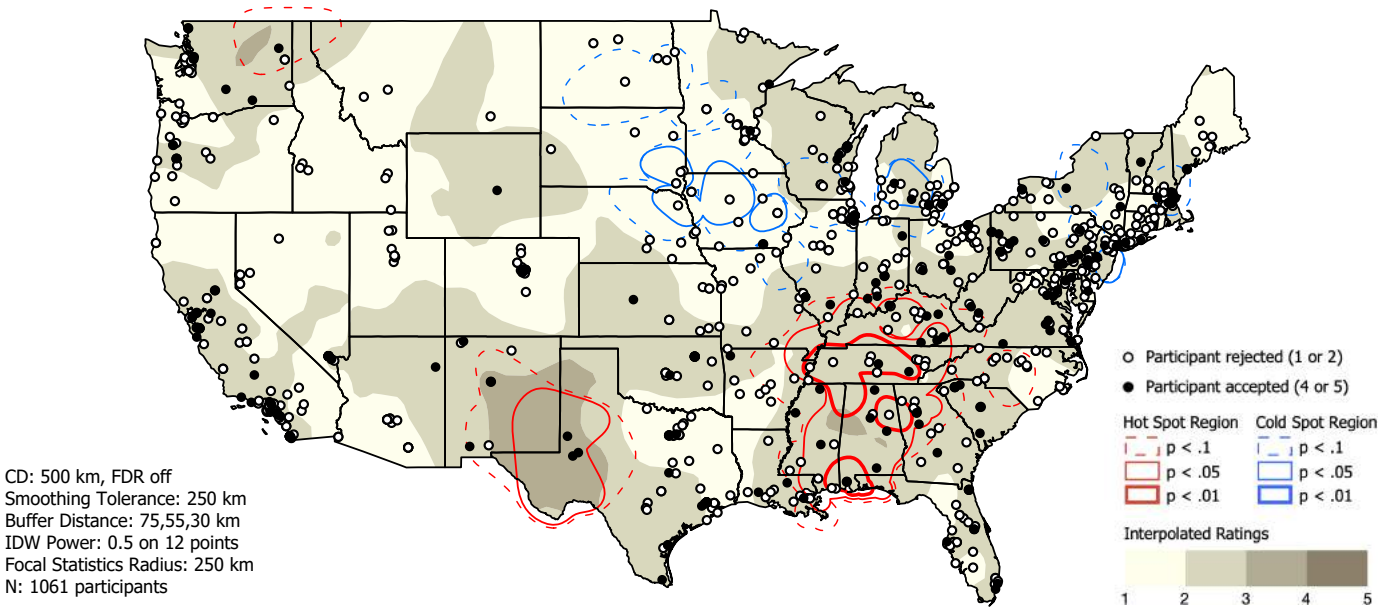
F1034: "They didn't any of them want to go out."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1061 participants

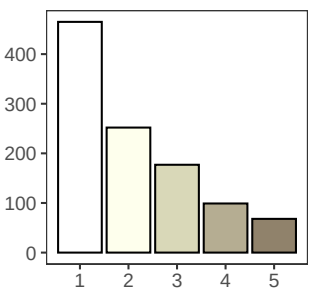
Without FDR Correction: Interpret with caution

F1034: "They didn't any of them want to go out."

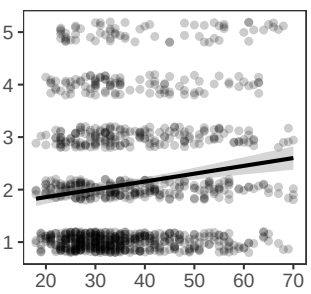


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1061 participants

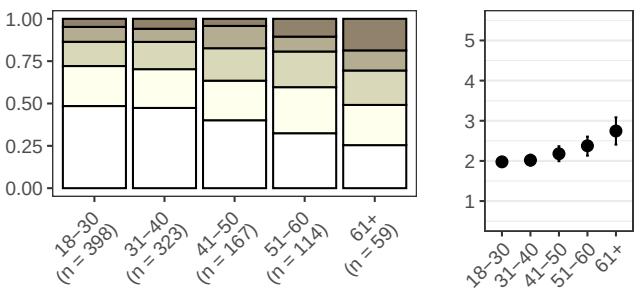
Judgments



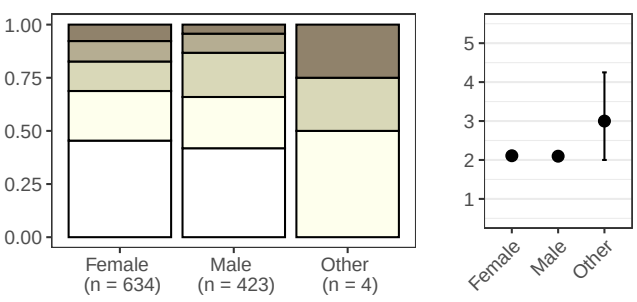
Age



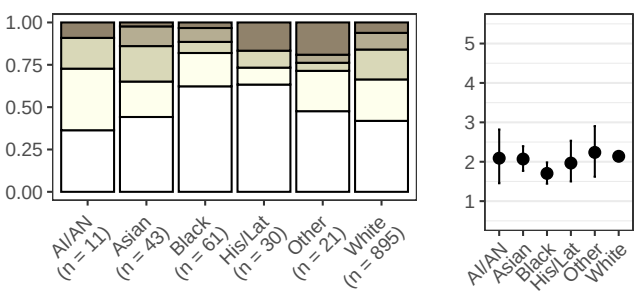
Age groups



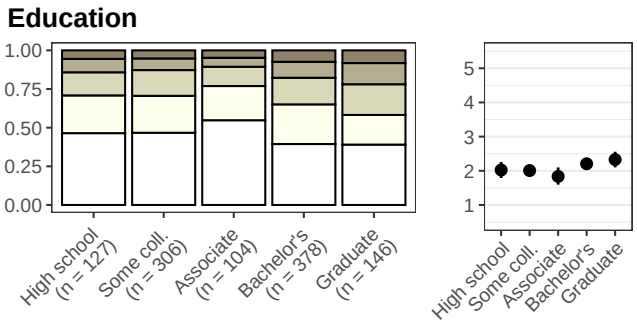
Gender



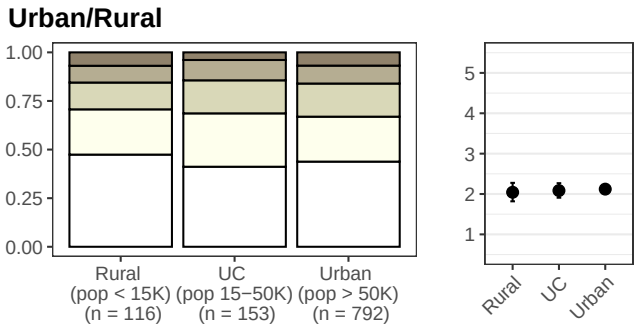
Race



Education

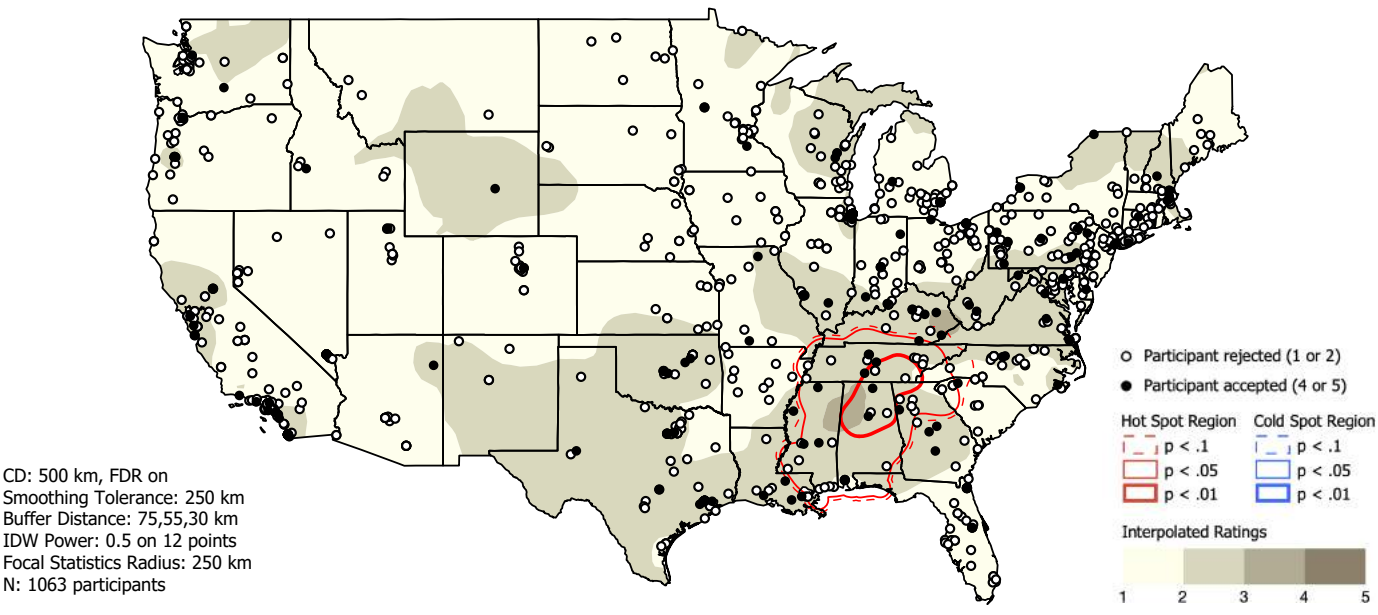


Urban/Rural



With FDR Correction

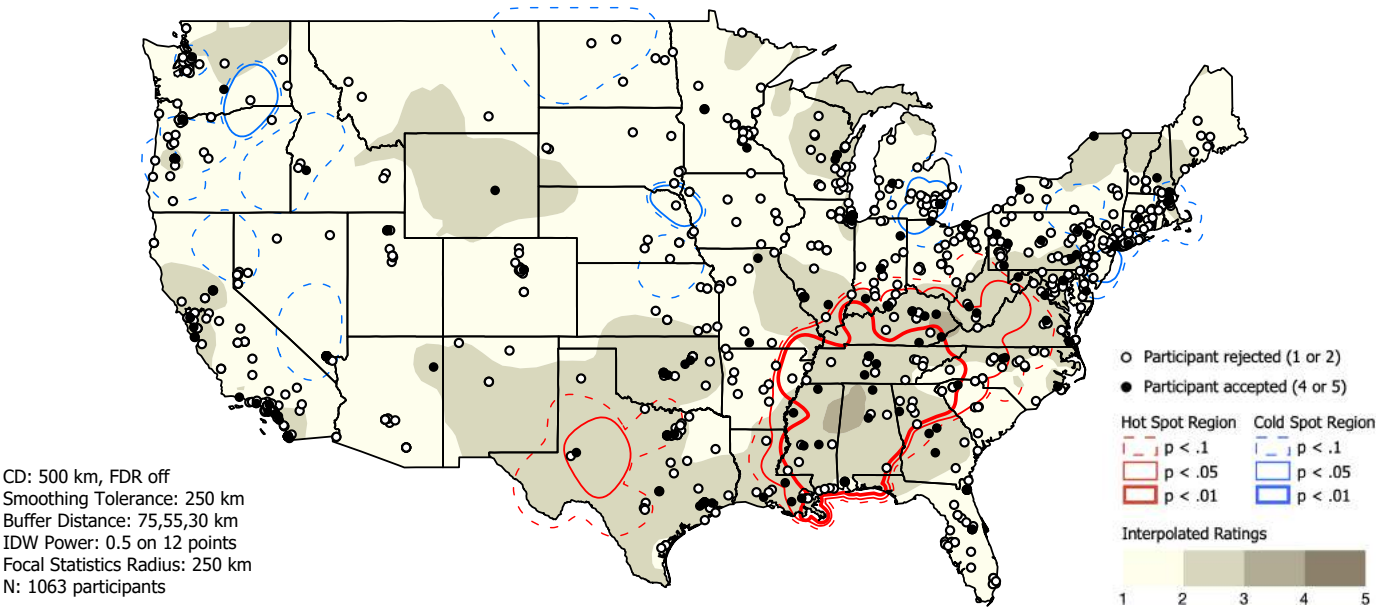
F1038: "But those people won't any of them fight fair."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

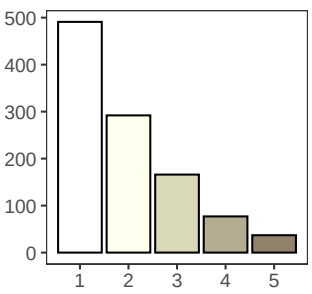
Without FDR Correction: Interpret with caution

F1038: "But those people won't any of them fight fair."

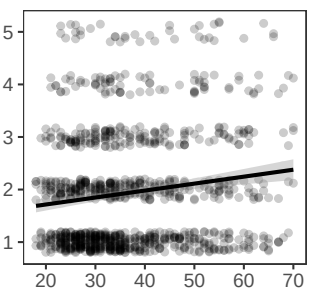


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

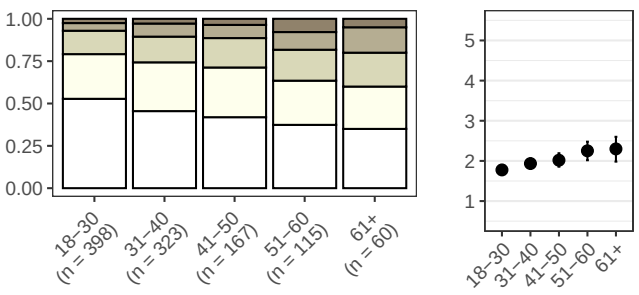
Judgments



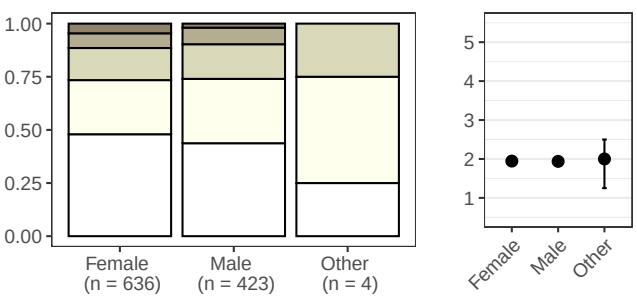
Age



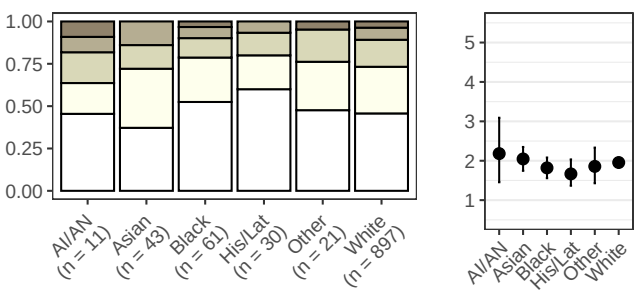
Age groups



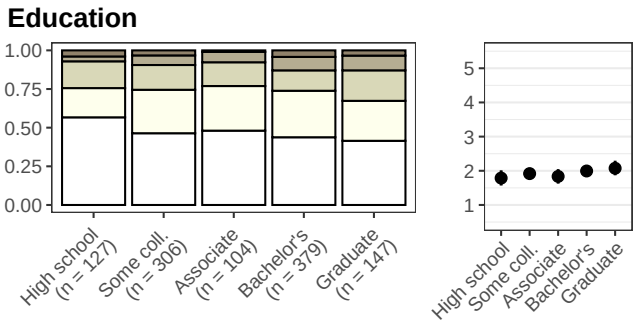
Gender



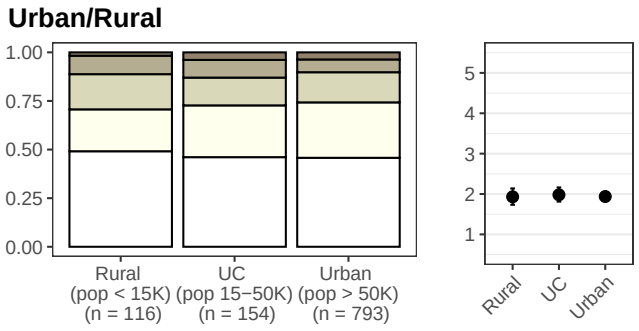
Race



Education

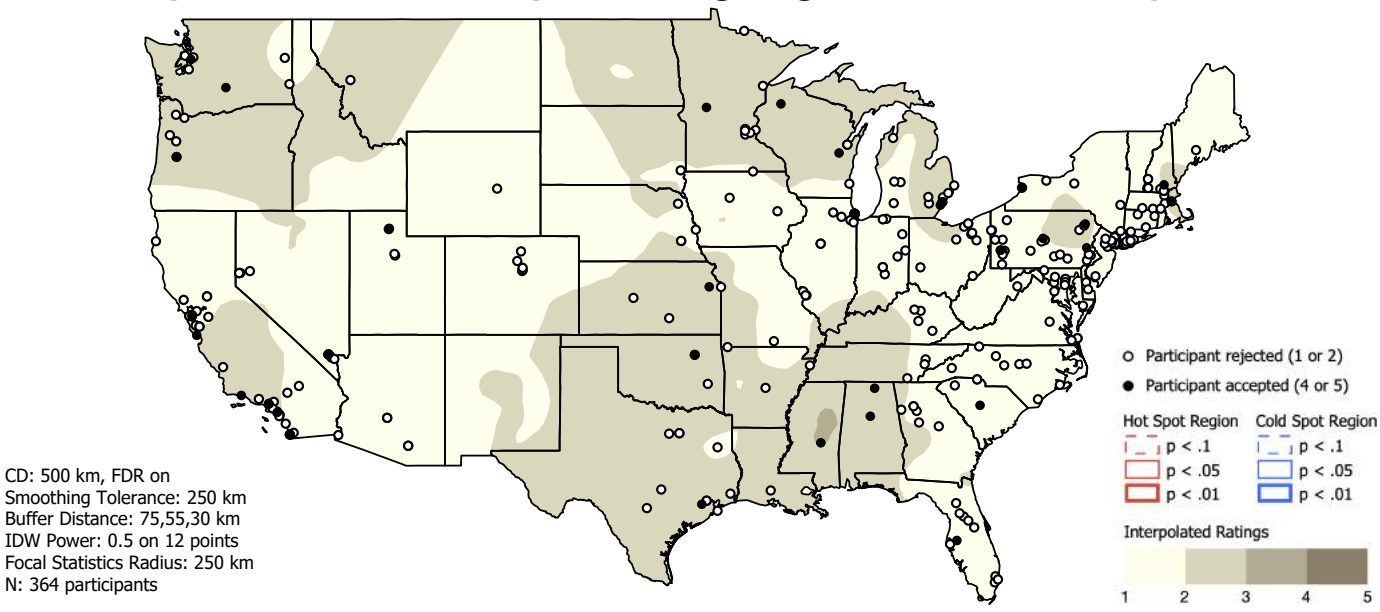


Urban/Rural



With FDR Correction

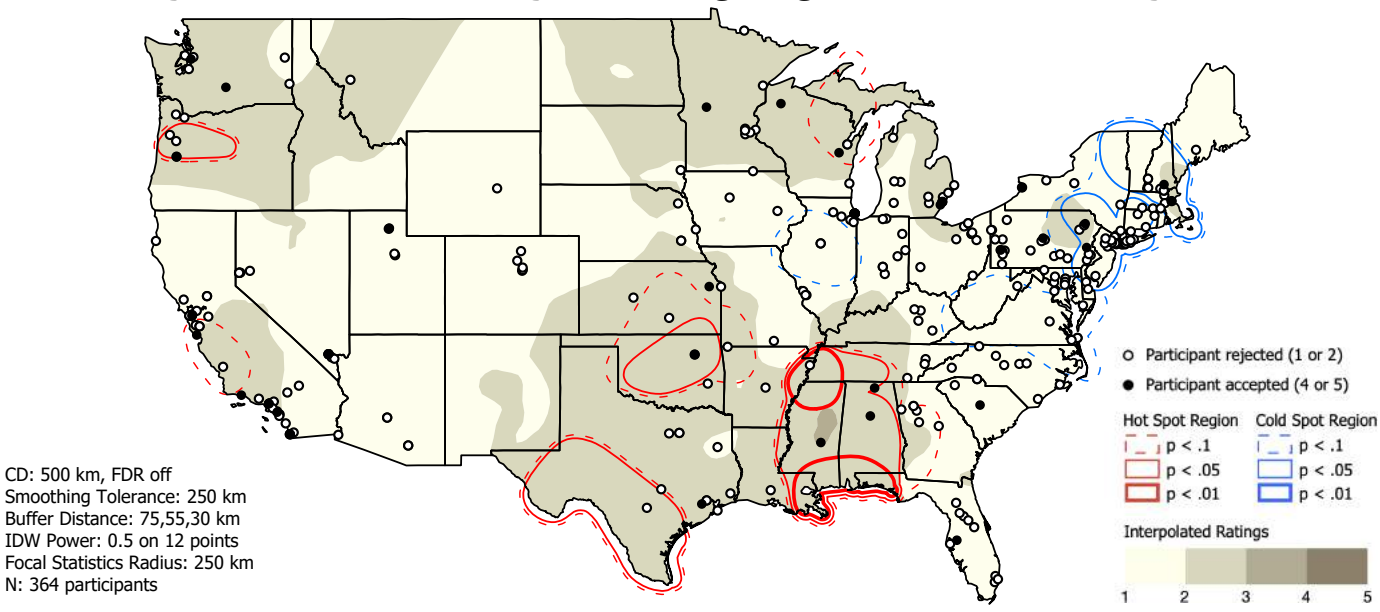
F1072: "The students don't any of them need any advice anymore, because they've been going to school for two years."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 364 participants

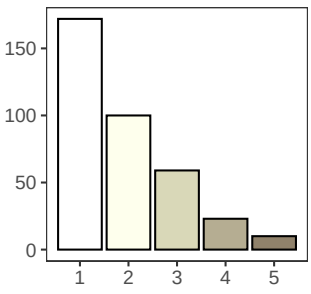
Without FDR Correction: Interpret with caution

F1072: "The students don't any of them need any advice anymore, because they've been going to school for two years."

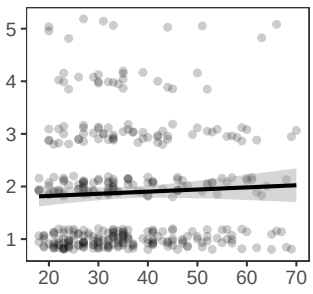


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 364 participants

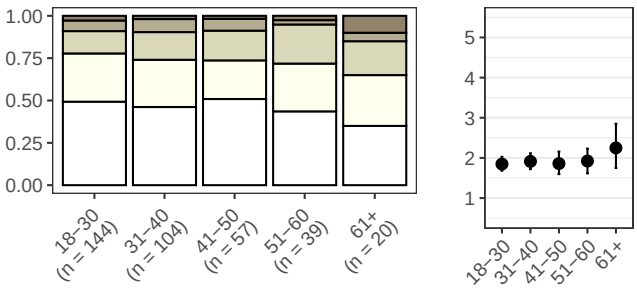
Judgments



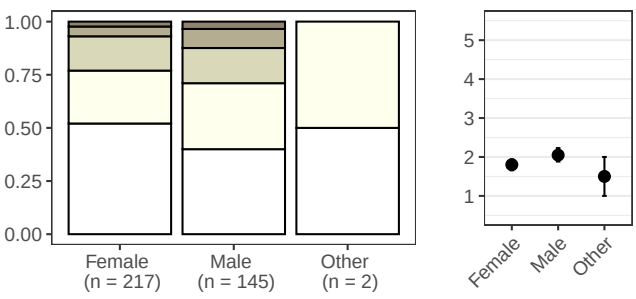
Age



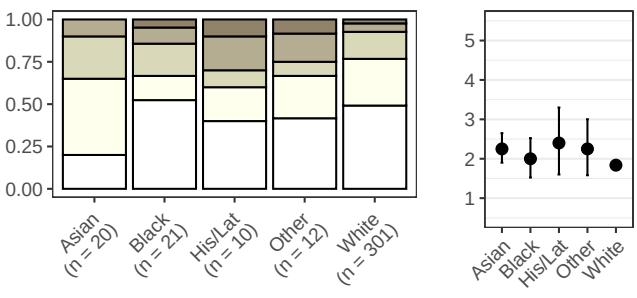
Age groups



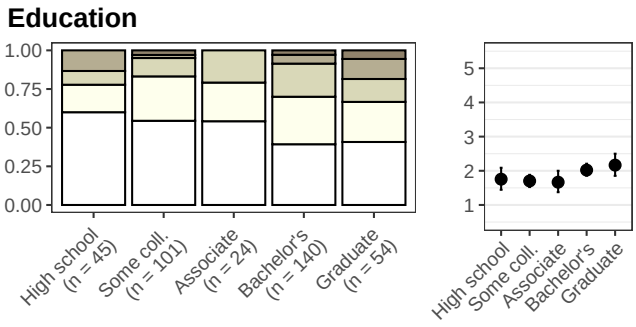
Gender



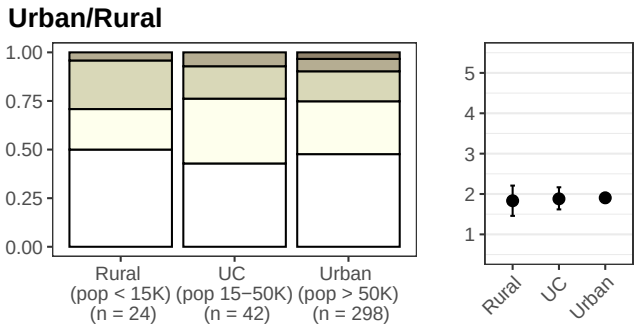
Race



Education

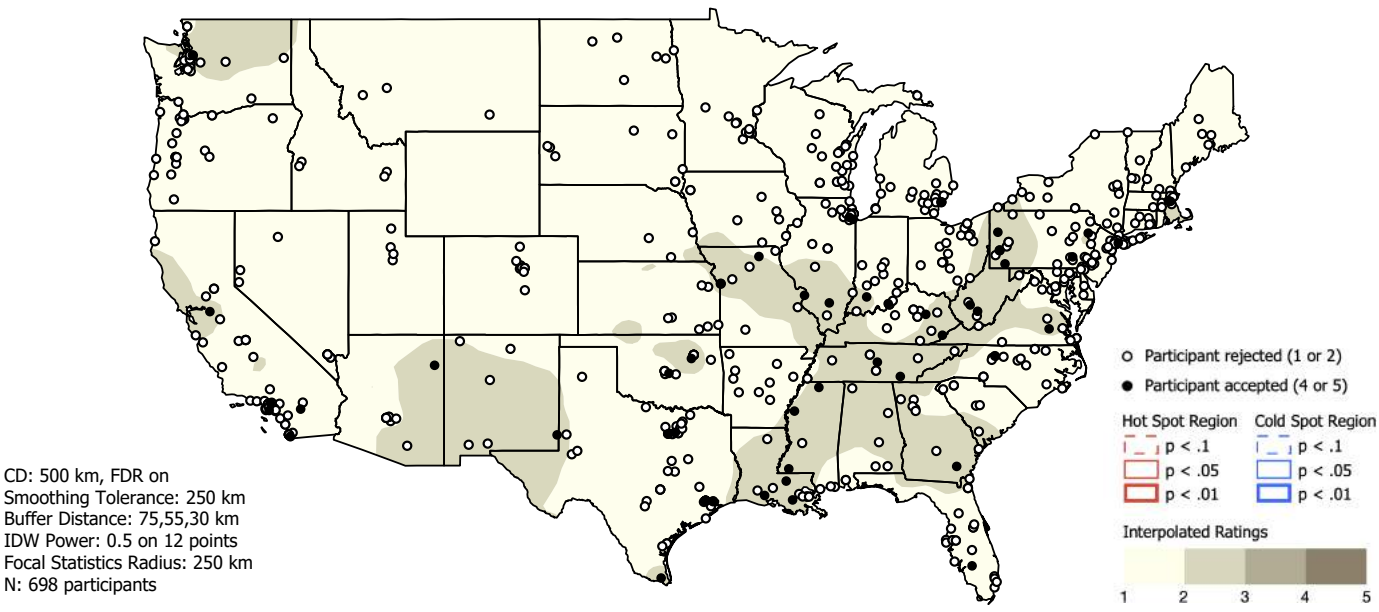


Urban/Rural



With FDR Correction

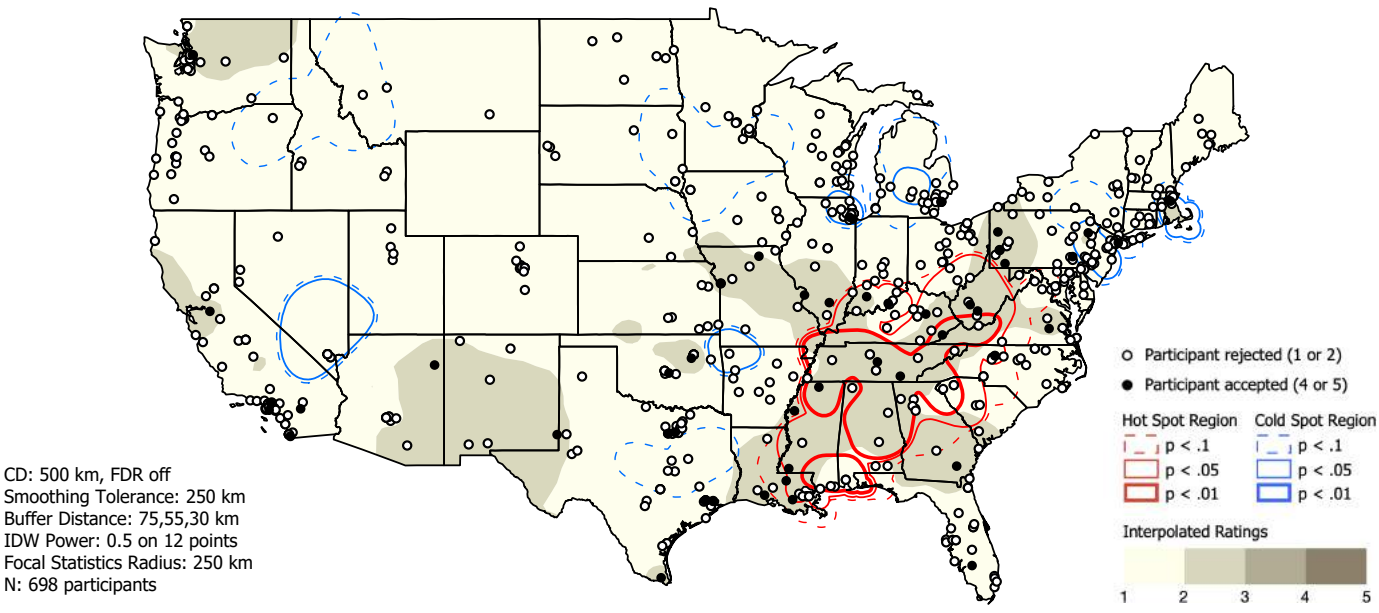
F1072.1: "The students don't any of them like these books."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

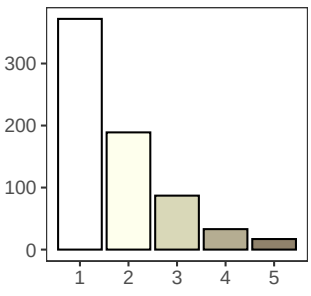
Without FDR Correction: Interpret with caution

F1072.1: "The students don't any of them like these books."

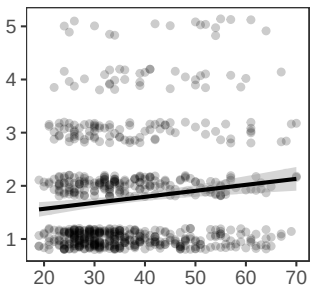


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
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N: 698 participants

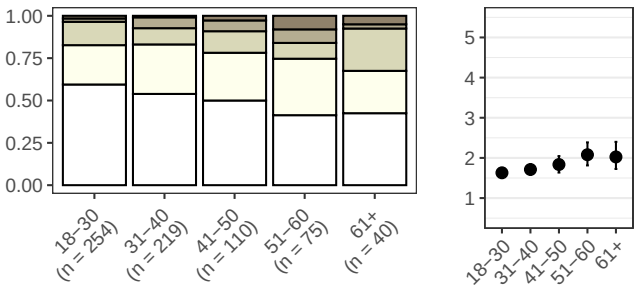
Judgments



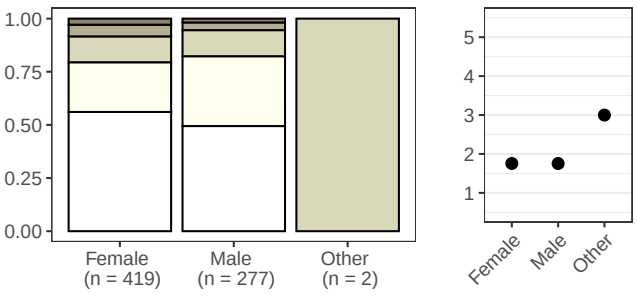
Age



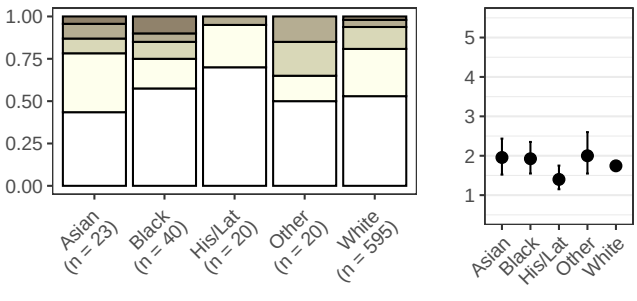
Age groups



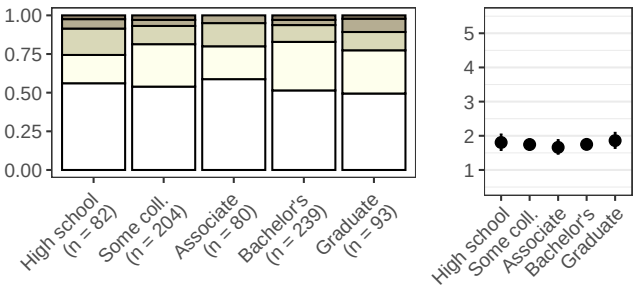
Gender



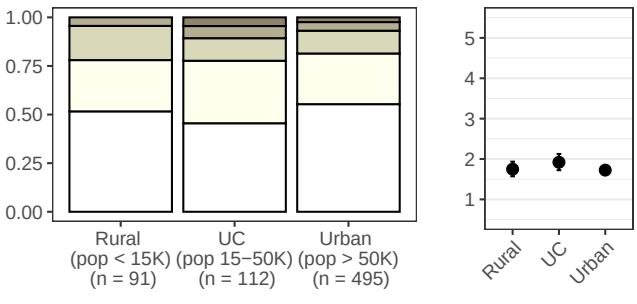
Race



Education

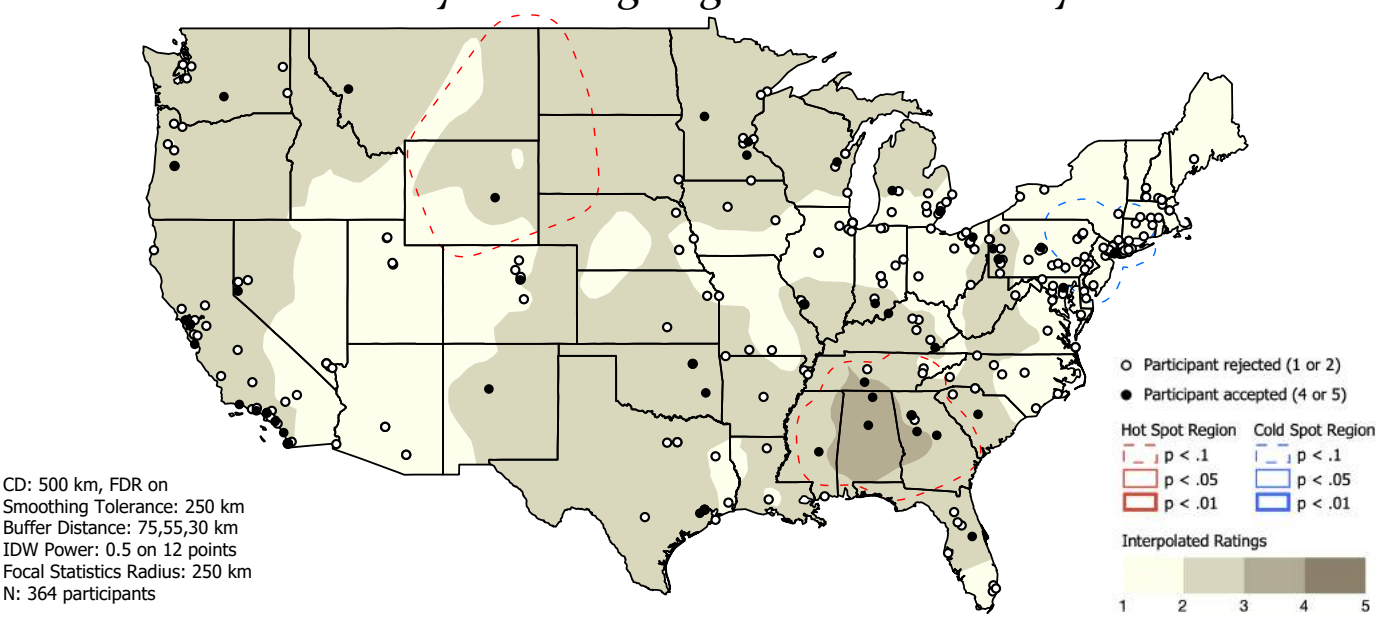


Urban/Rural



With FDR Correction

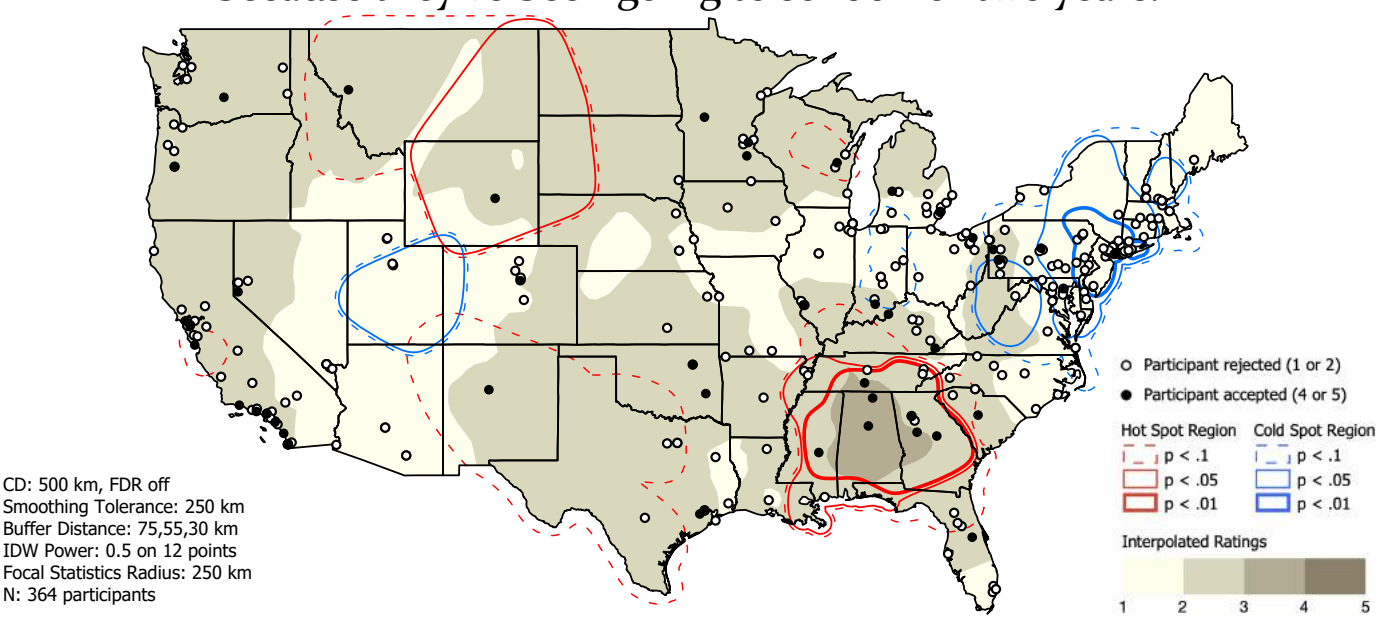
F1073: "They don't any of them need any advice anymore, because they've been going to school for two years."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 364 participants

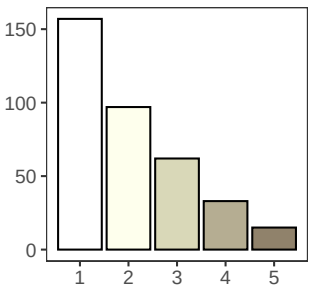
Without FDR Correction: Interpret with caution

F1073: "They don't any of them need any advice anymore, because they've been going to school for two years."

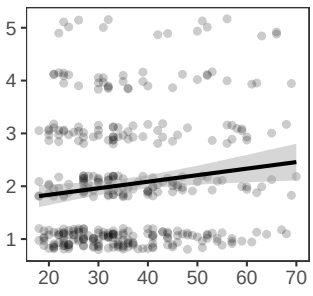


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
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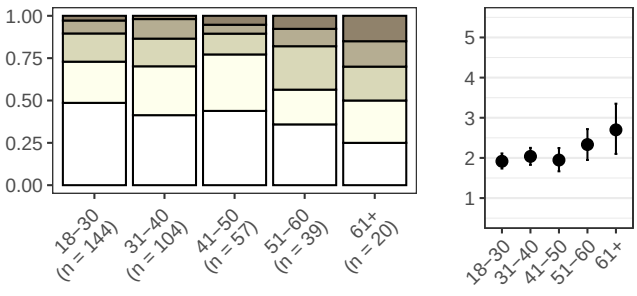
Judgments



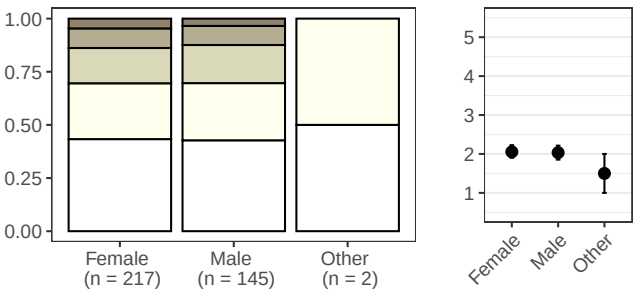
Age



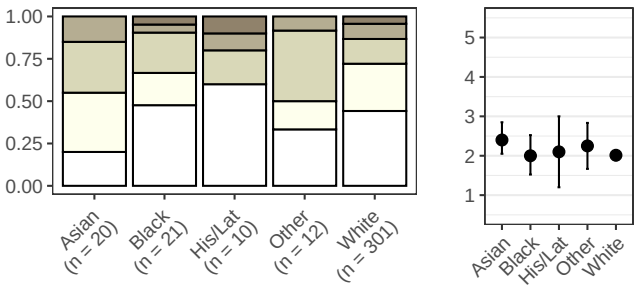
Age groups



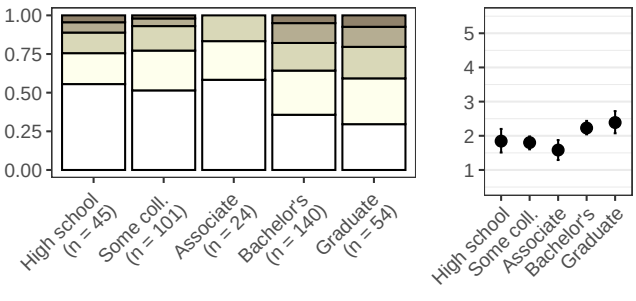
Gender



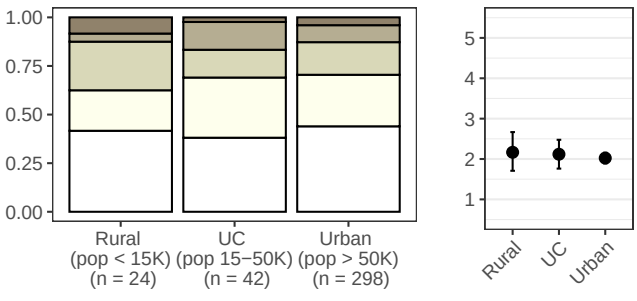
Race



Education

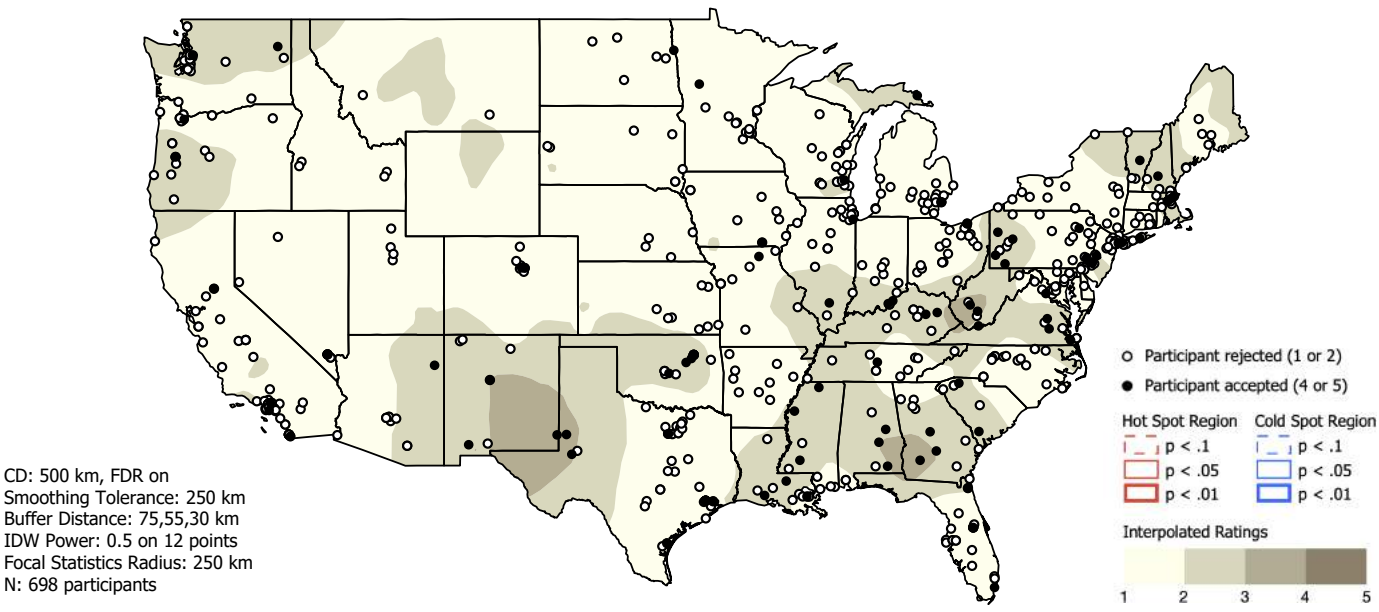


Urban/Rural



With FDR Correction

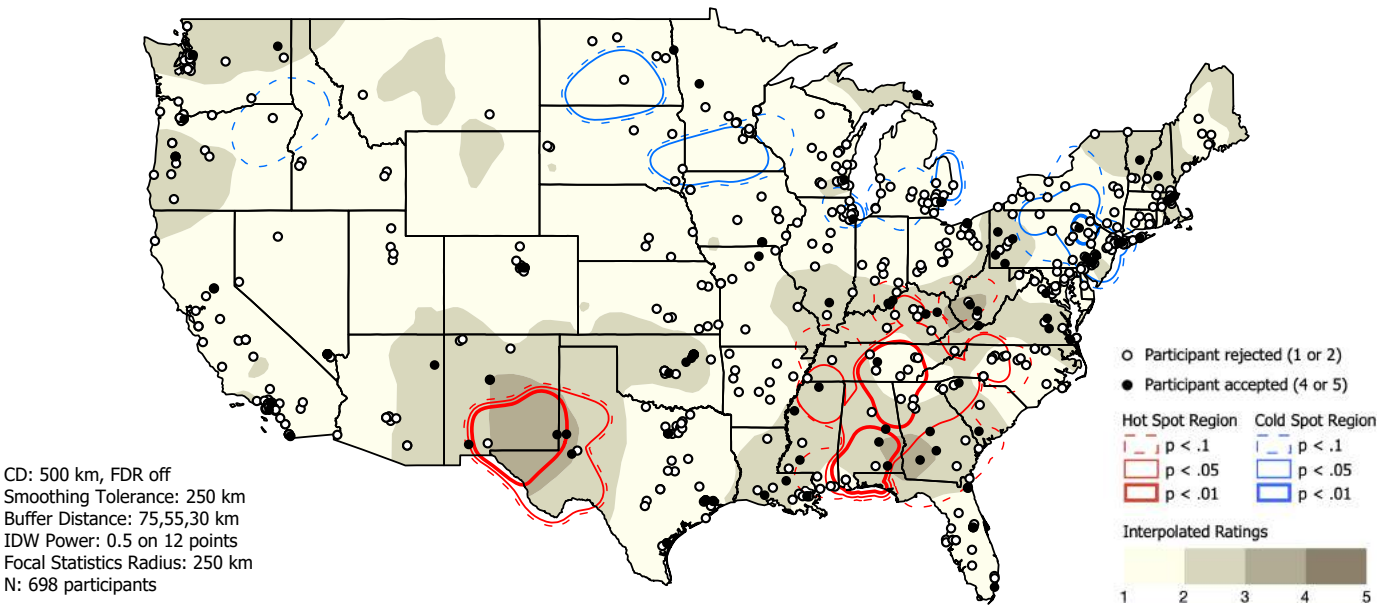
F1073.1: "They don't any of them like these books."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

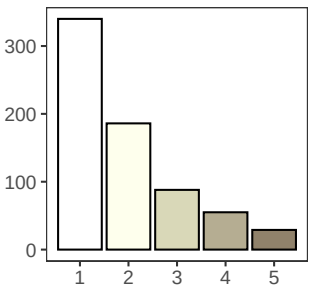
Without FDR Correction: Interpret with caution

F1073.1: "They don't any of them like these books."

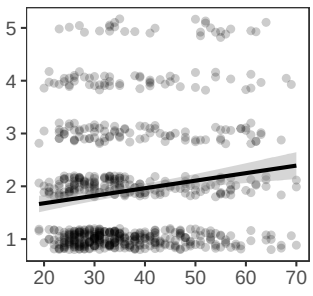


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

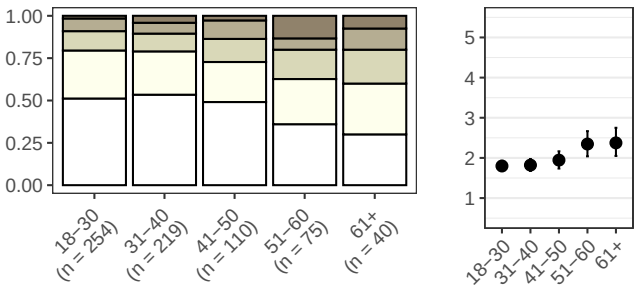
Judgments



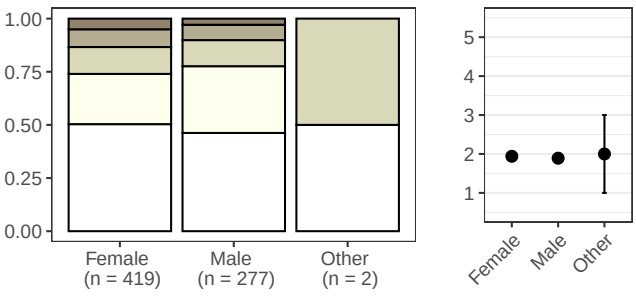
Age



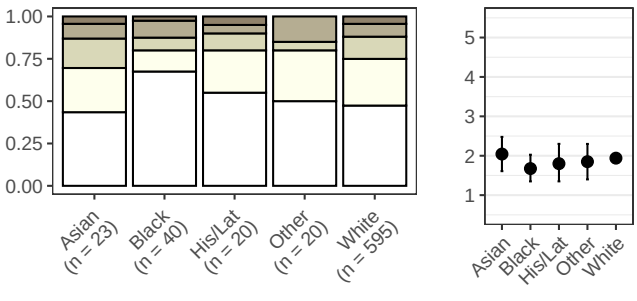
Age groups



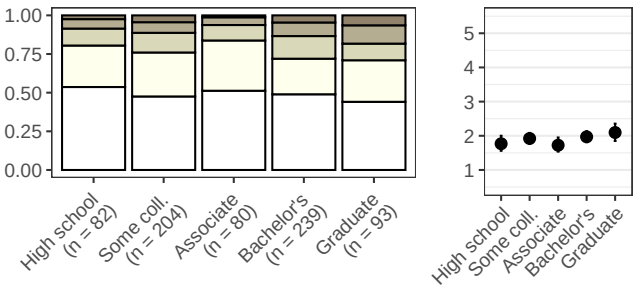
Gender



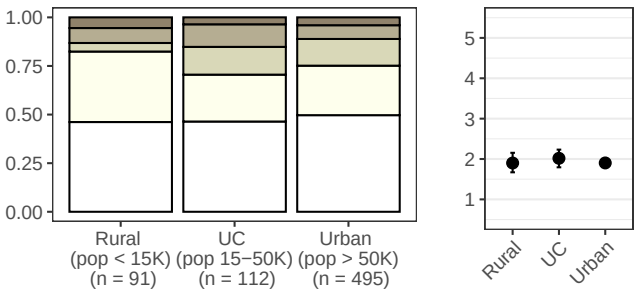
Race



Education

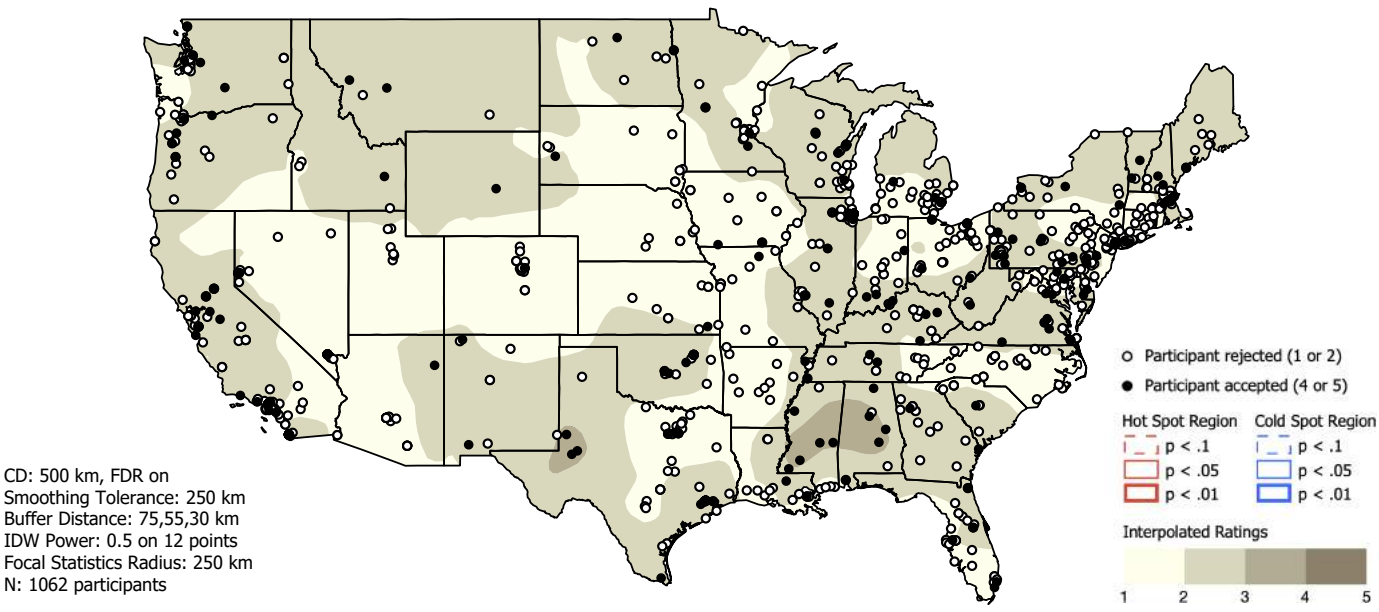


Urban/Rural



With FDR Correction

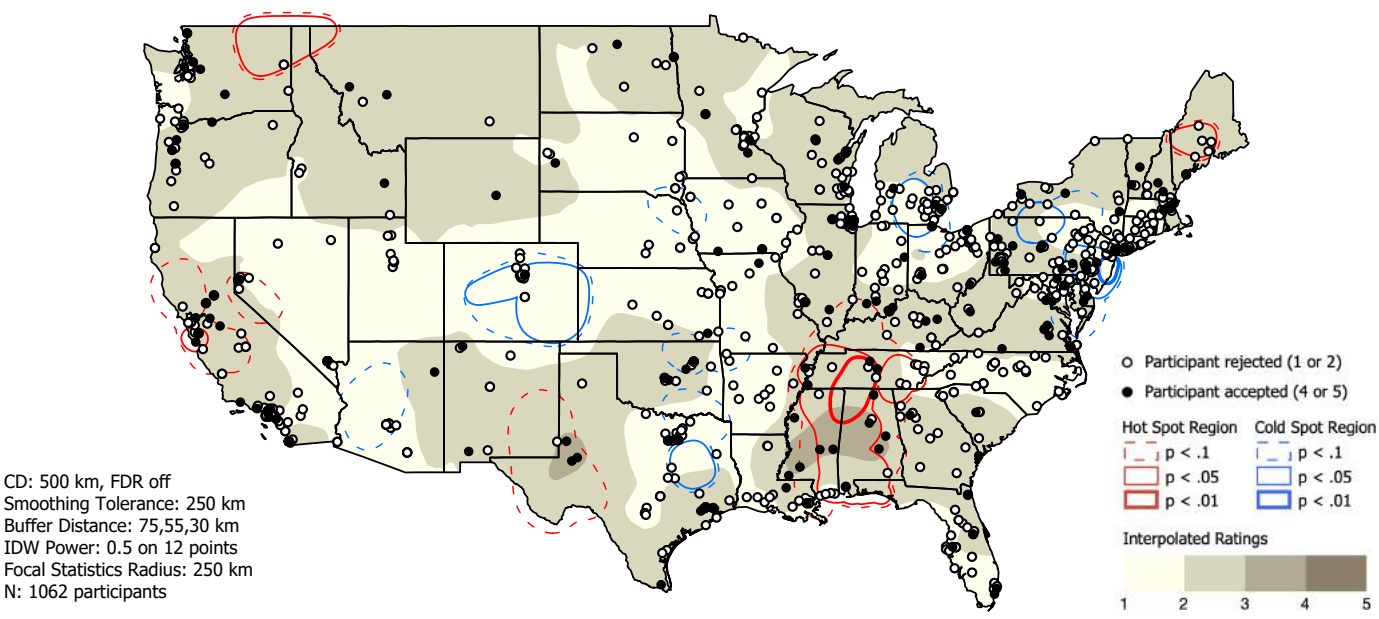
F1074: "We don't any of us tell the truth all the time."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

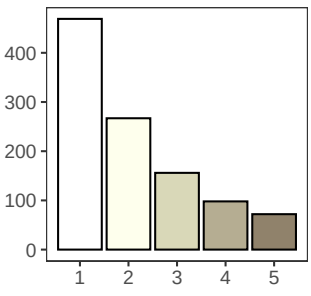
Without FDR Correction: Interpret with caution

F1074: "We don't any of us tell the truth all the time."

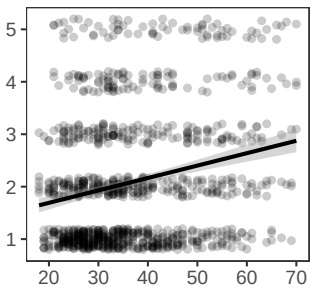


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

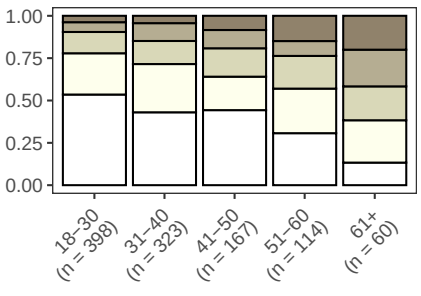
Judgments

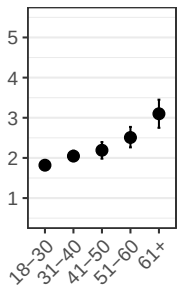


Age

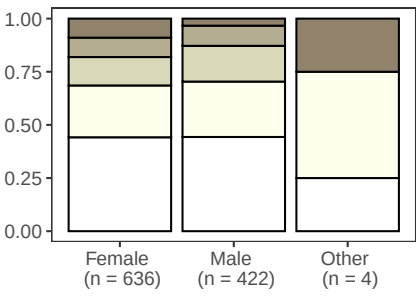


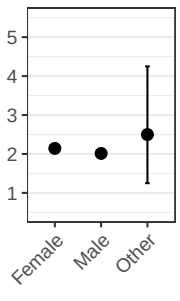
Age groups



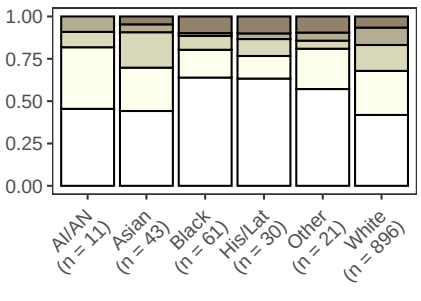


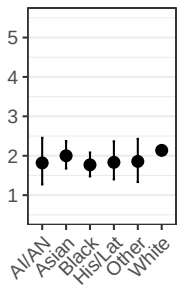
Gender



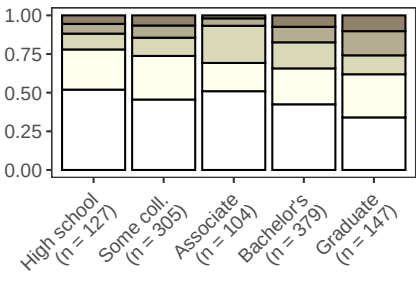


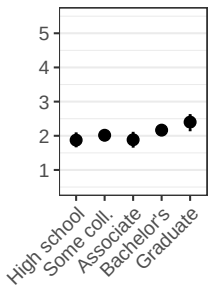
Race



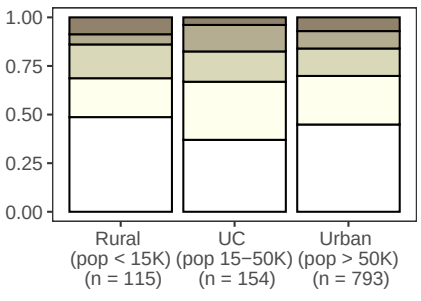


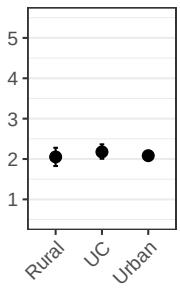
Education





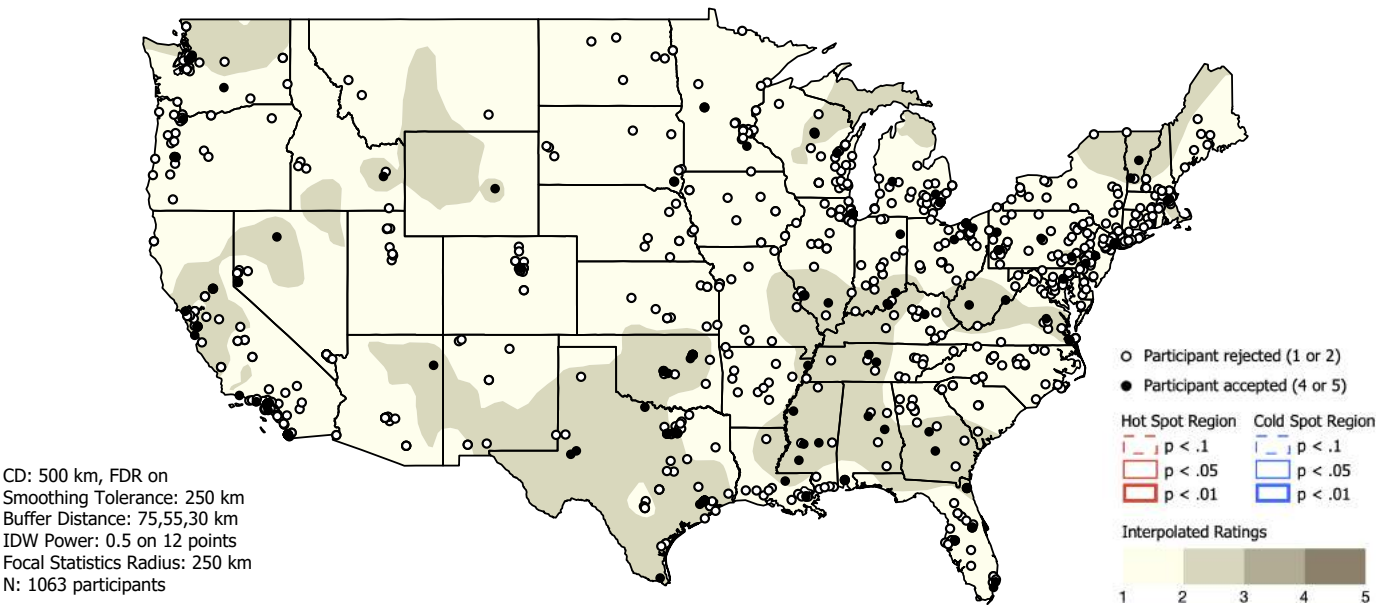
Urban/Rural





With FDR Correction

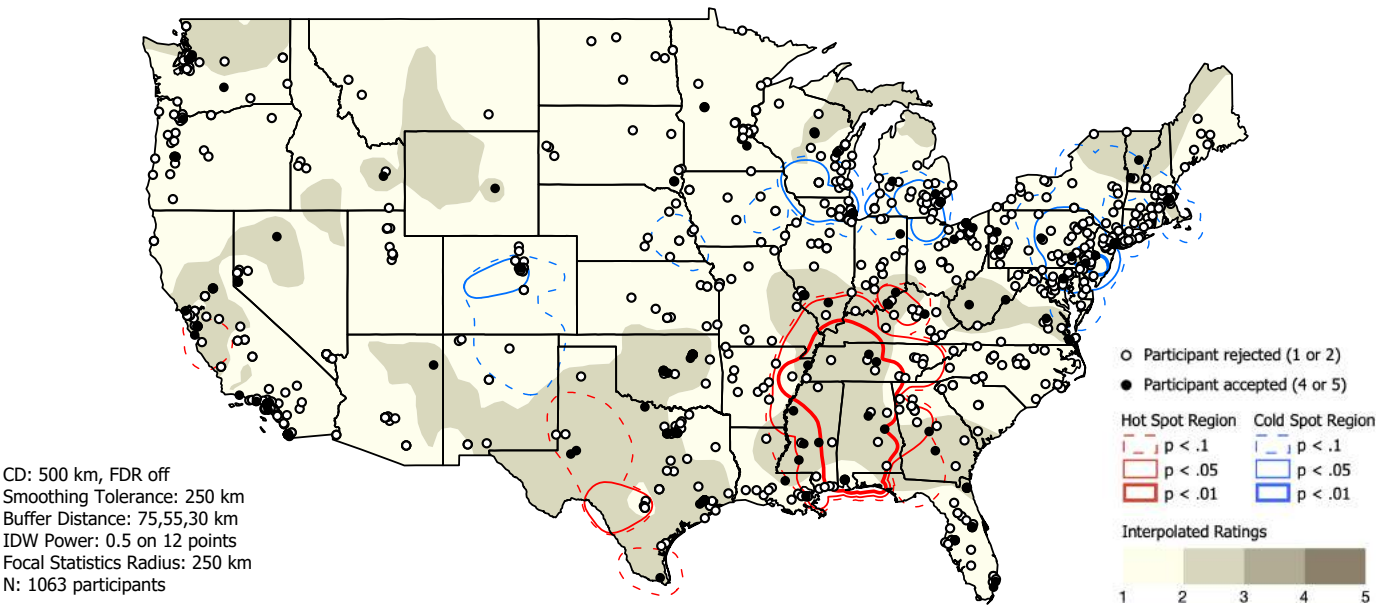
F1075: "We don't any of us politicians tell the truth all the time."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

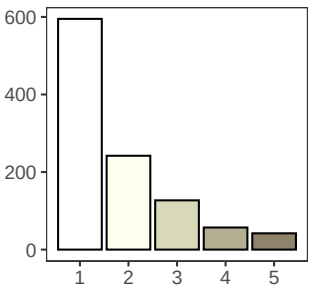
Without FDR Correction: Interpret with caution

F1075: "We don't any of us politicians tell the truth all the time."

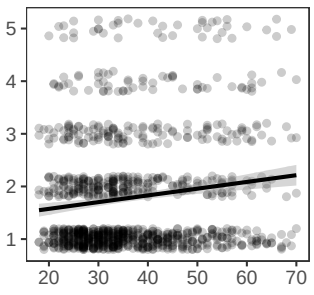


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1063 participants

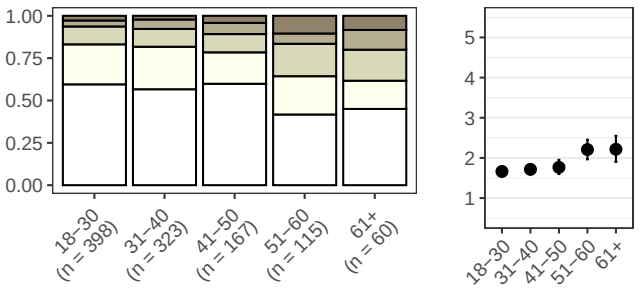
Judgments



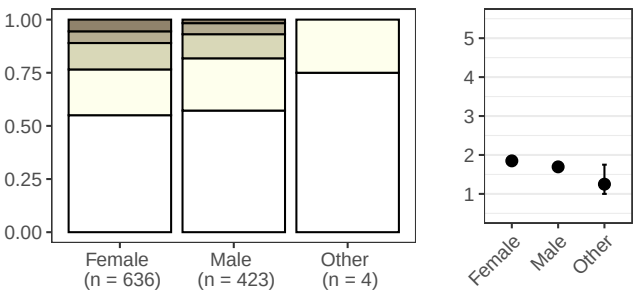
Age



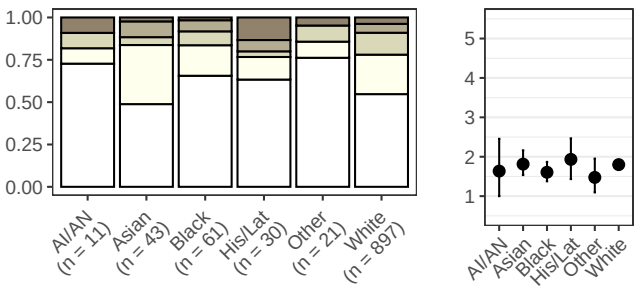
Age groups



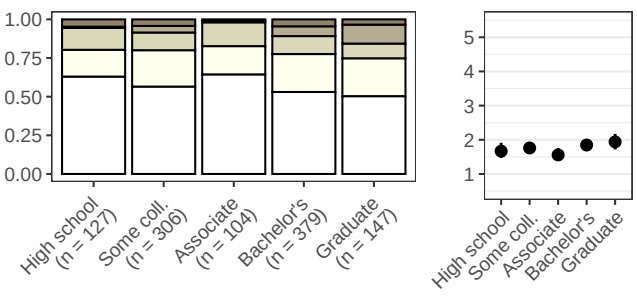
Gender



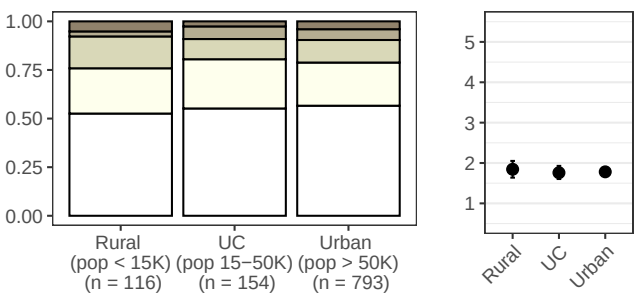
Race



Education

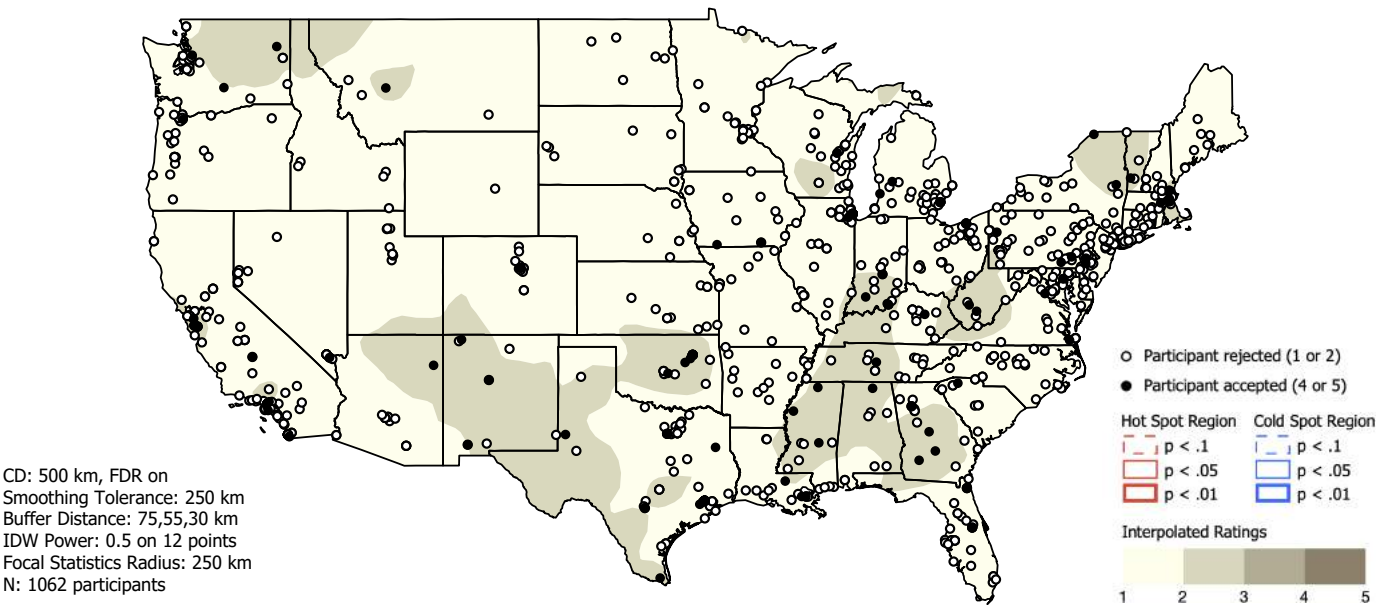


Urban/Rural



With FDR Correction

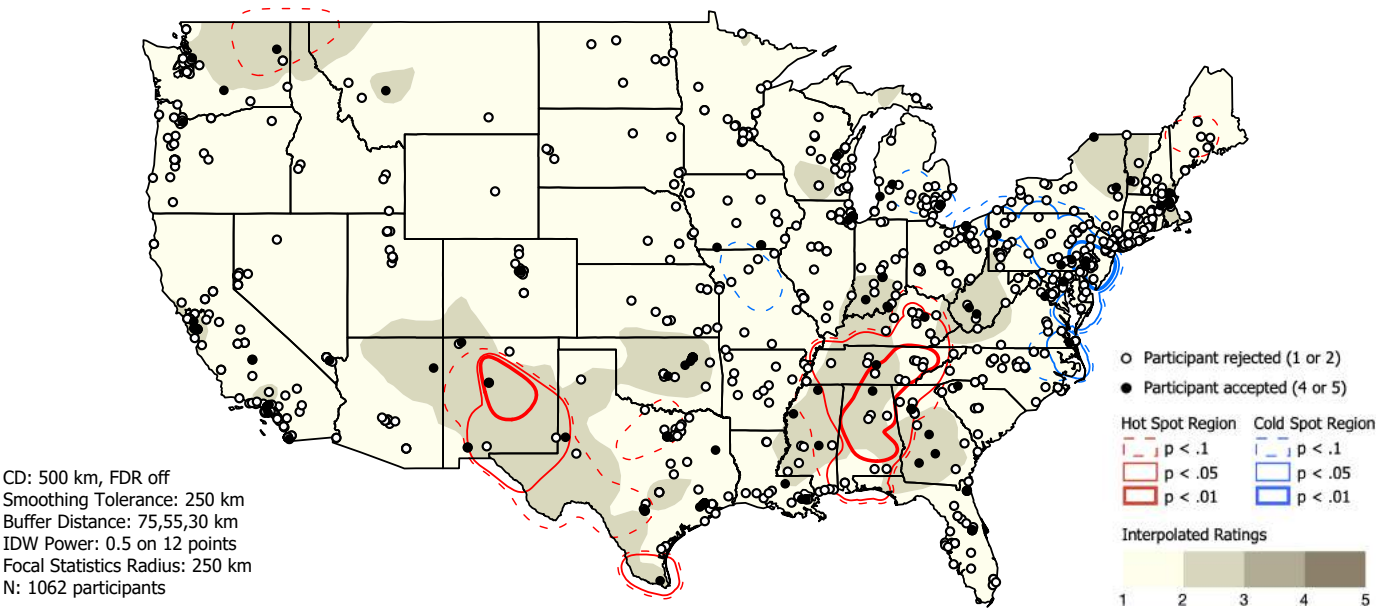
F1076: "They won't any of the kids tell the truth."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

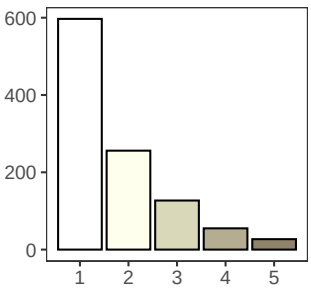
Without FDR Correction: Interpret with caution

F1076: "They won't any of the kids tell the truth."

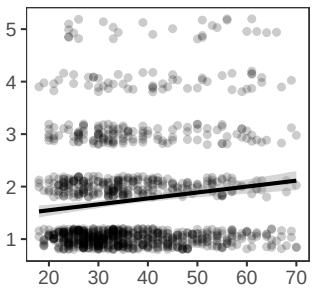


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

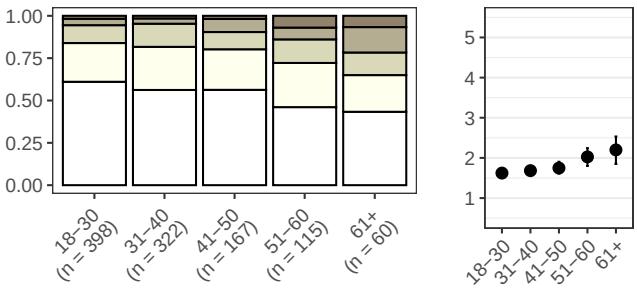
Judgments



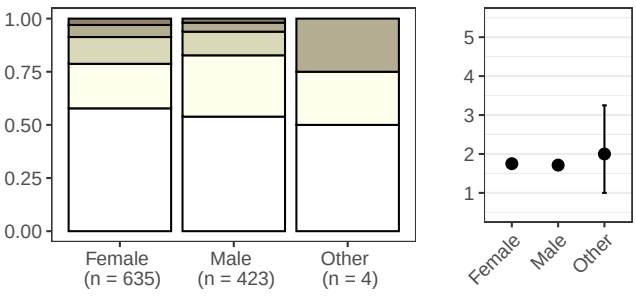
Age



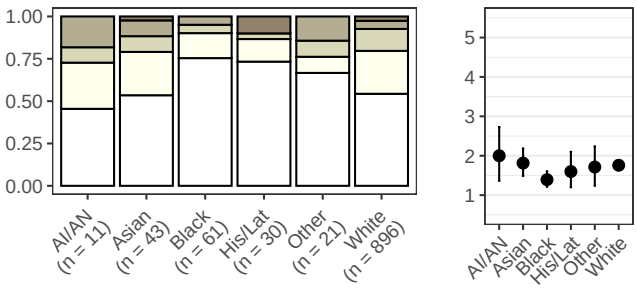
Age groups



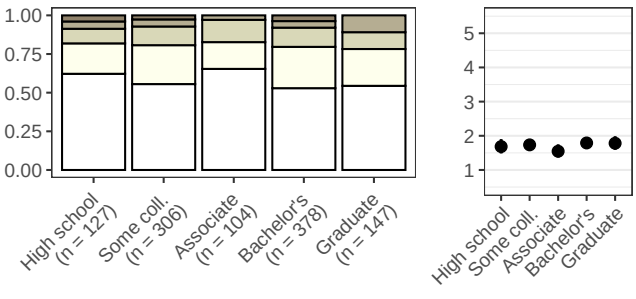
Gender



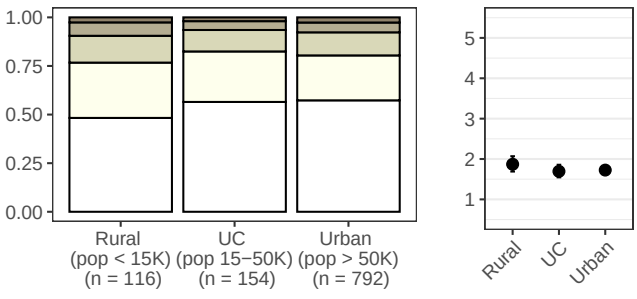
Race



Education

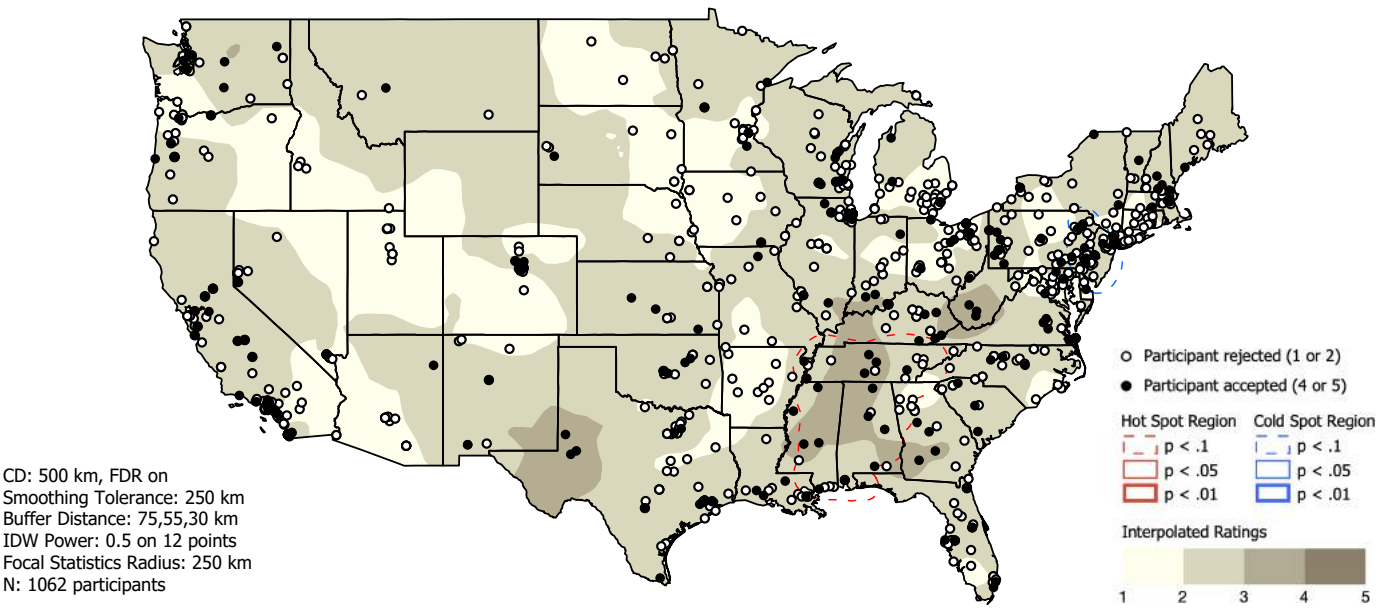


Urban/Rural



With FDR Correction

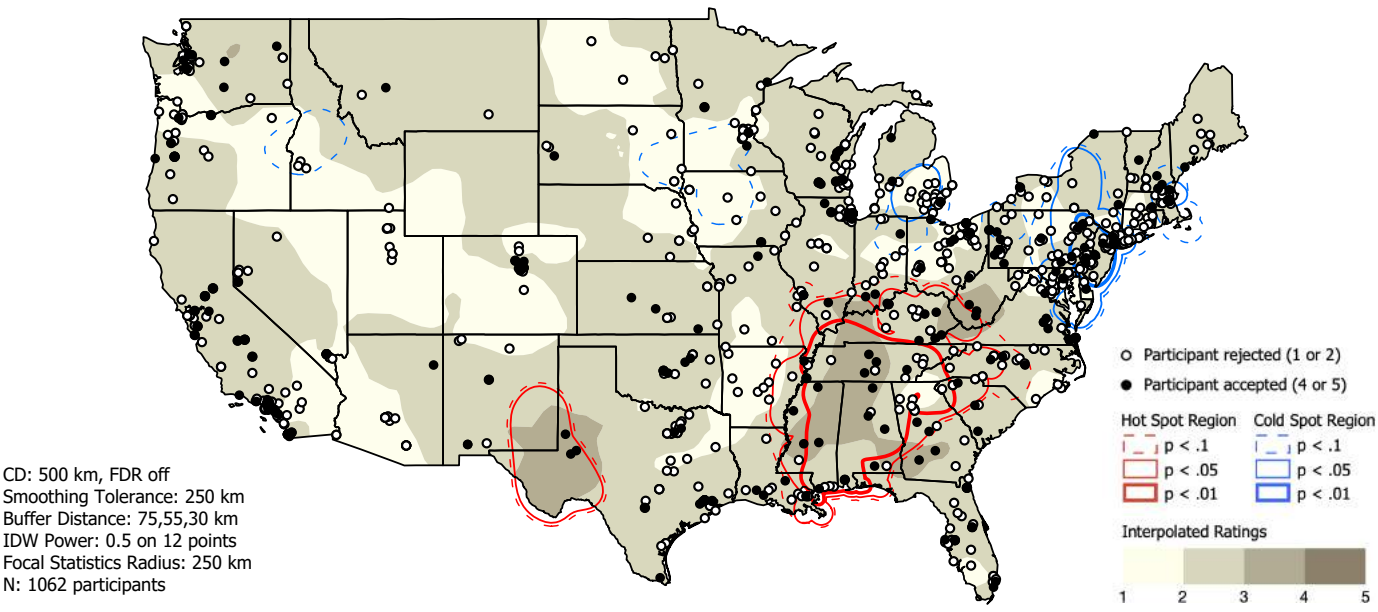
F1077: "They won't any of them tell the truth."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

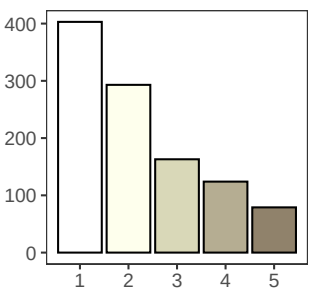
Without FDR Correction: Interpret with caution

F1077: "They won't any of them tell the truth."

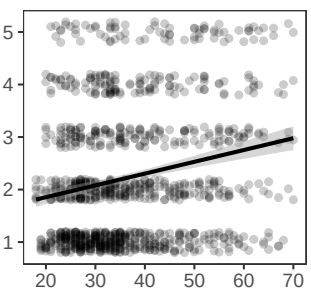


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1062 participants

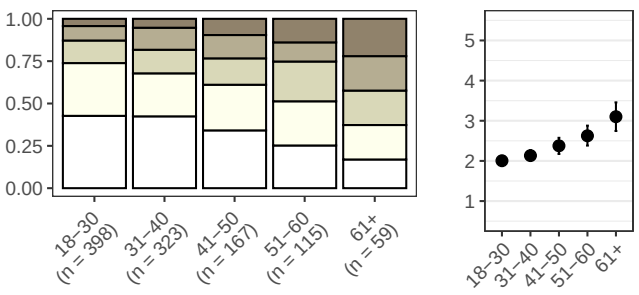
Judgments



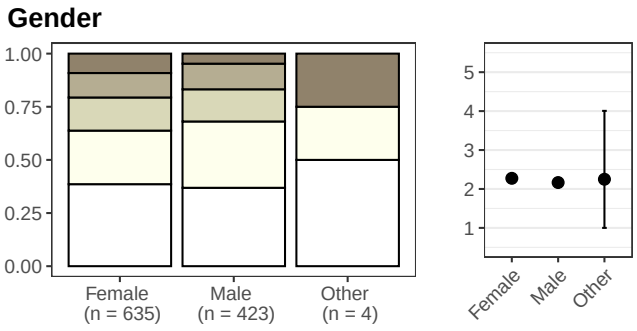
Age



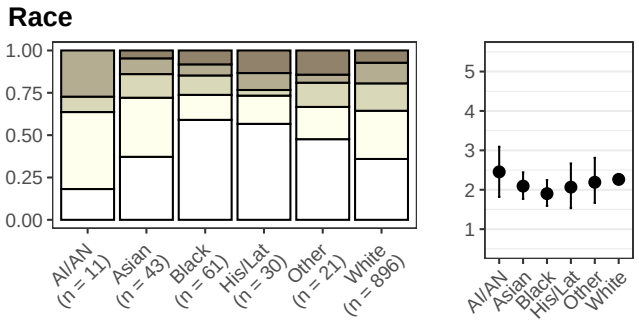
Age groups



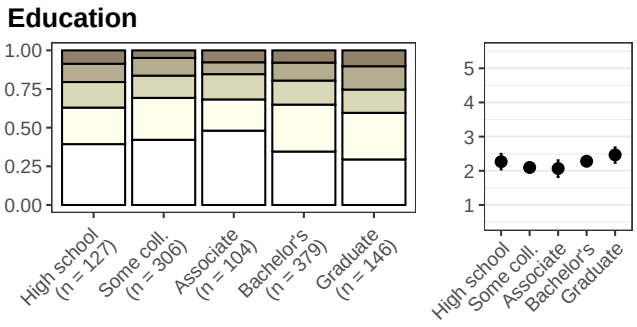
Gender



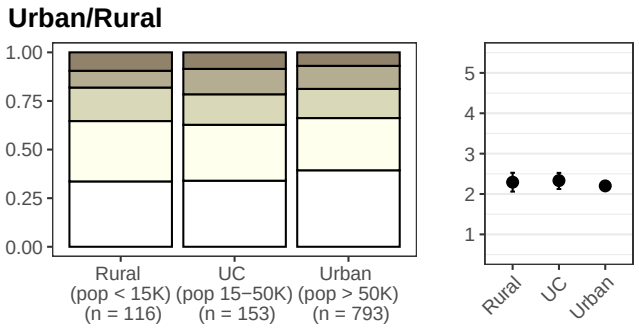
Race



Education



Urban/Rural



11 No variation, and "variation in every room"

In this chapter we present a variety of miscellaneous sentences that served as pilots on various surveys. Many of them are not likely to be regional, or show other socially-conditioned variation. Some may not show very much variation at all. In some cases (such as the survey 7 sentences), there is not enough data to be able to tell if any variation found might be conditioned by region or other social factors. In some cases, the absence of expected variation is actually of substantial interest, so we present all of our results here in the same manner as above.

11.1 Little to no variation

The sentences discussed in this subsection showed very little variation.

11.1.1 Near universal acceptance

The sentences 1129 and 1167 in (31) were almost universally accepted.

(31)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1129	He's got a lot of money, doesn't he?	303	4.68	0.67	7
F1167	The dog wants in.	807	4.75	0.66	9

Independent work by a former student in our project, Edie Reimink, indicates that the *wants in* construction does in fact vary geographically when prepositional particles other than *in* are chosen (and/or verbs like *need* and *like* are used in place of *want*).

Also falling into the category of near-universal acceptance are the *may have* sentences discussed in section 11.3.

11.1.2 Near universal rejection

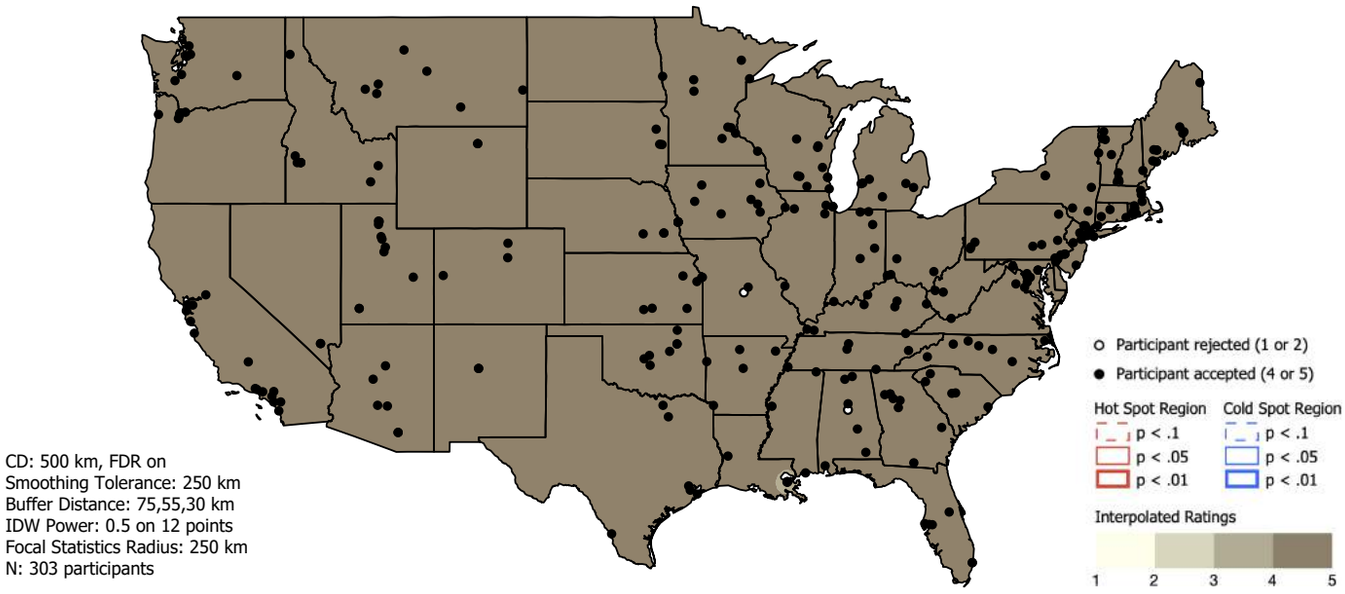
The sentence 1145 in (32) was almost universally rejected.

(32)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1145	We went mall.	303	1.17	0.46	7

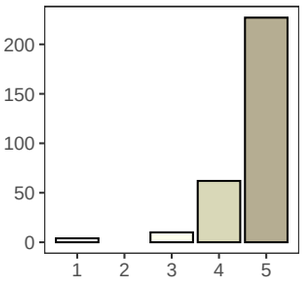
We refer to this as 'yooper *mall*' because it was based on a report that it was found in the upper peninsula of Michigan (abbreviated UP, so people from the UP are referred to as 'yoopers'). However, we did not have any participants from this area in this survey, and we did not pursue it further.

F1129: "He's got a lot of money, doesn't he?"

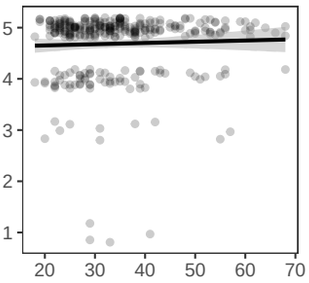


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

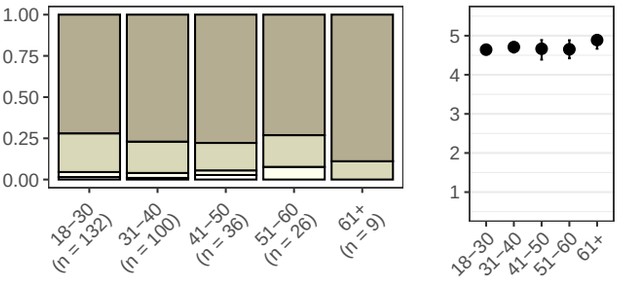
Judgments



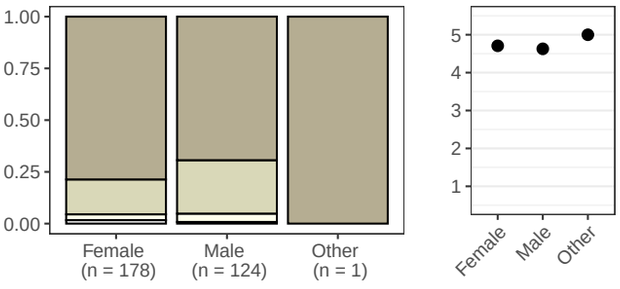
Age



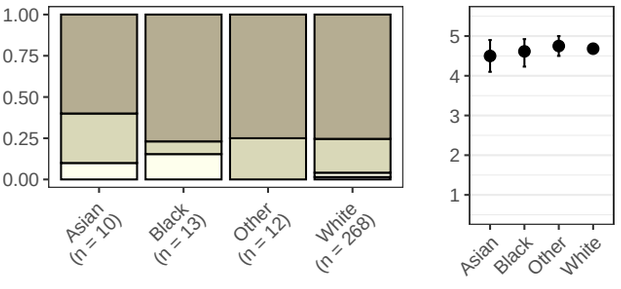
Age groups



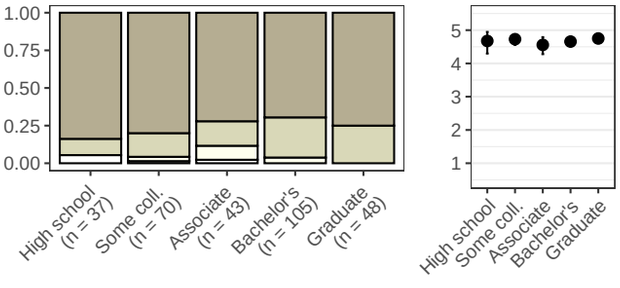
Gender



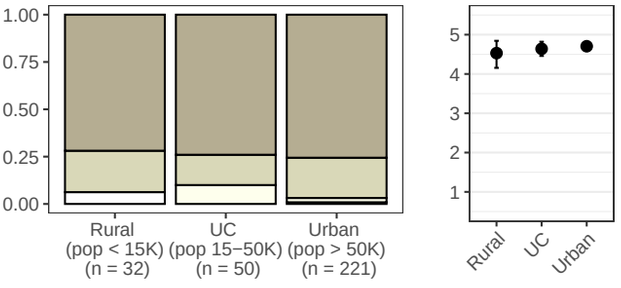
Race



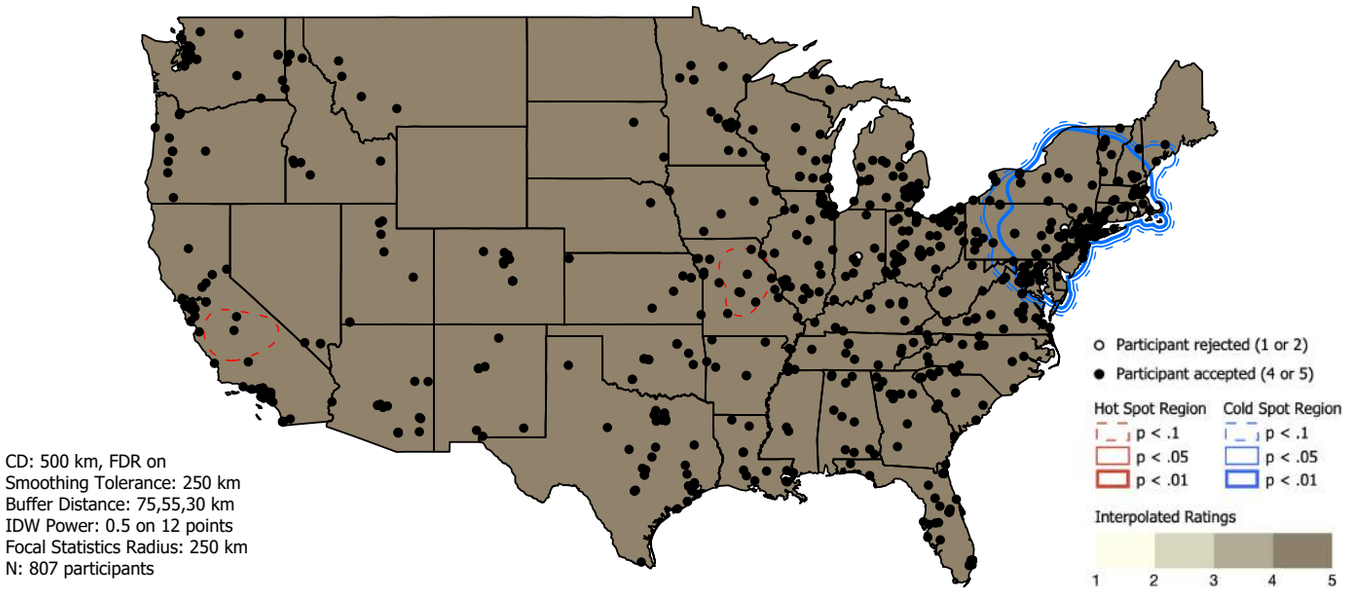
Education



Urban/Rural

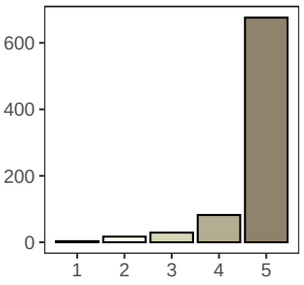


F1167: "The dog wants in."

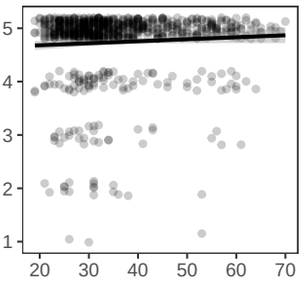


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

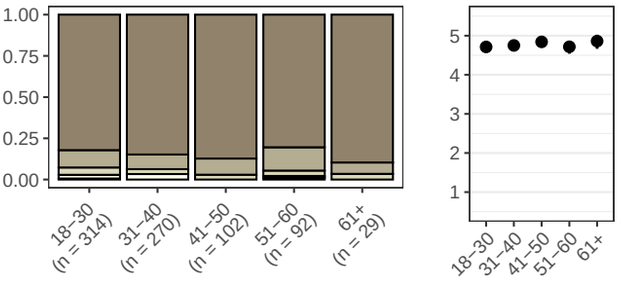
Judgments



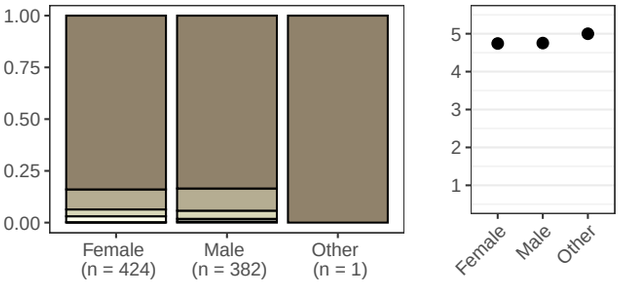
Age



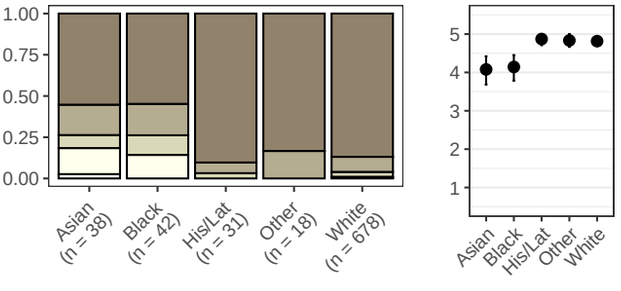
Age groups



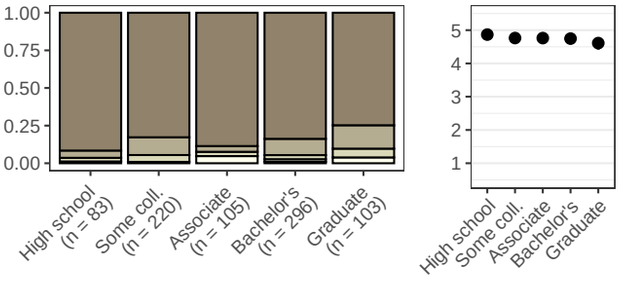
Gender



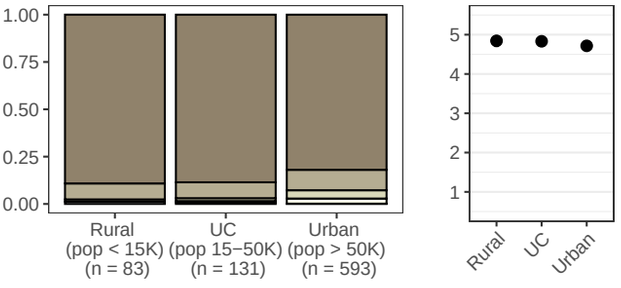
Race



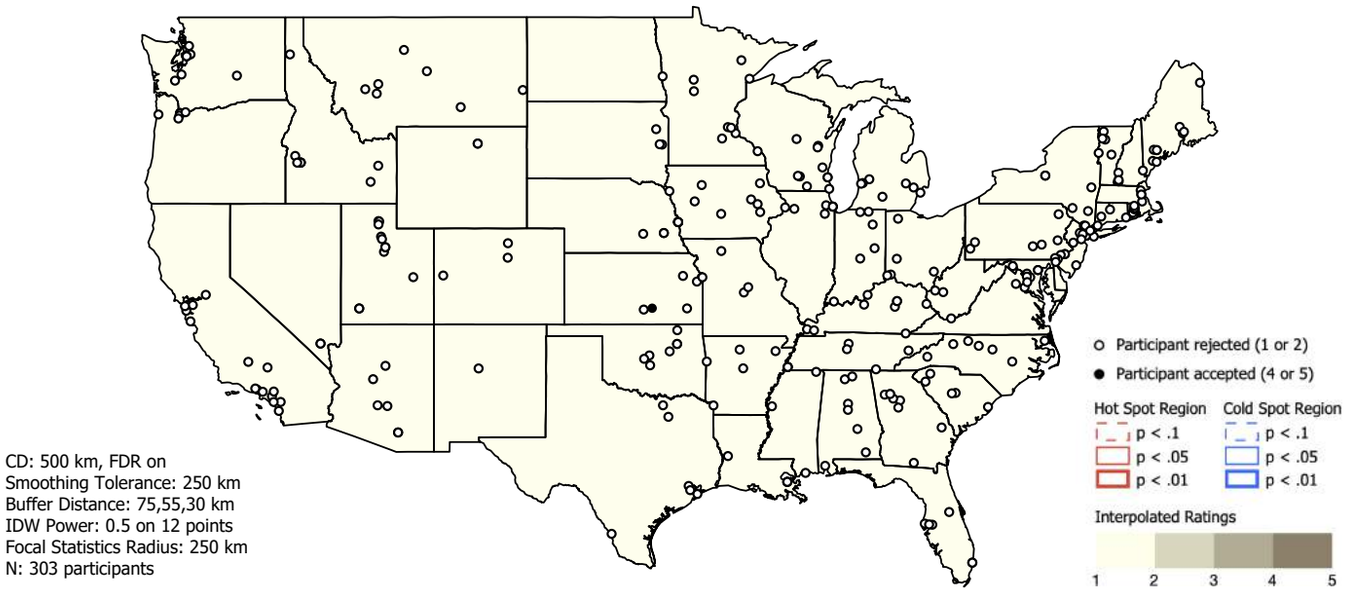
Education



Urban/Rural

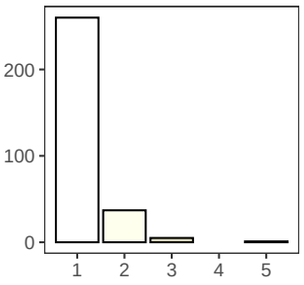


F1145: "We went mall."

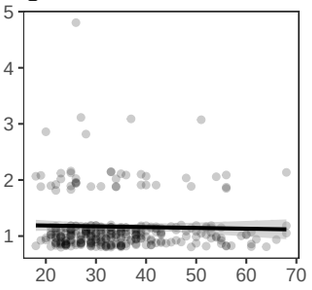


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

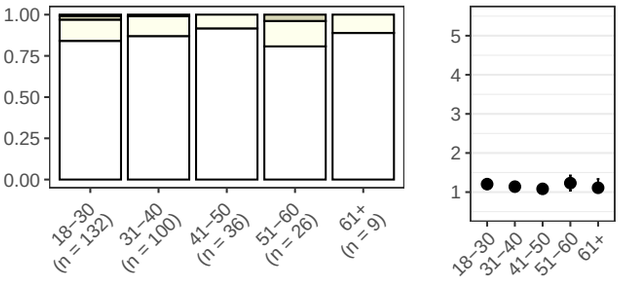
Judgments



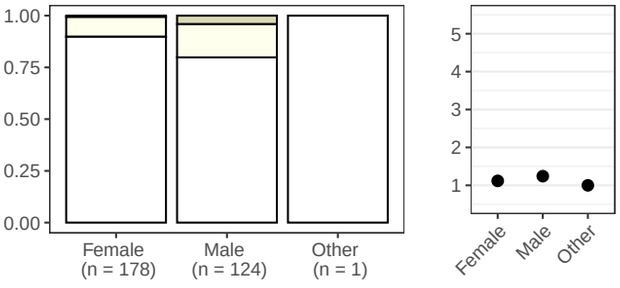
Age



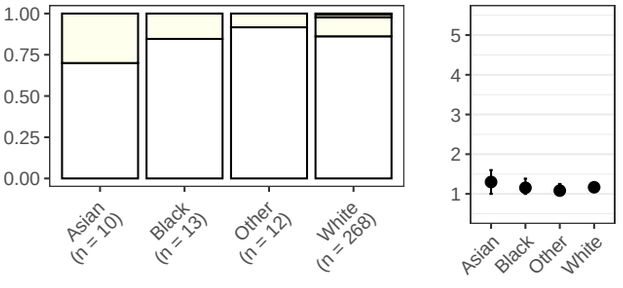
Age groups



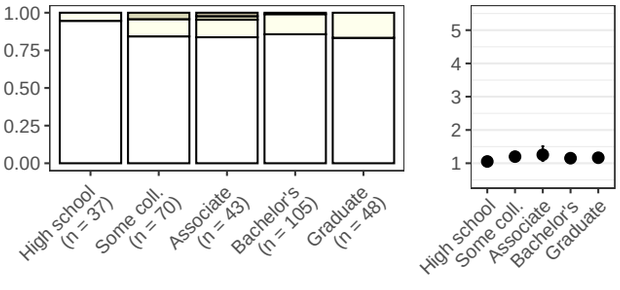
Gender



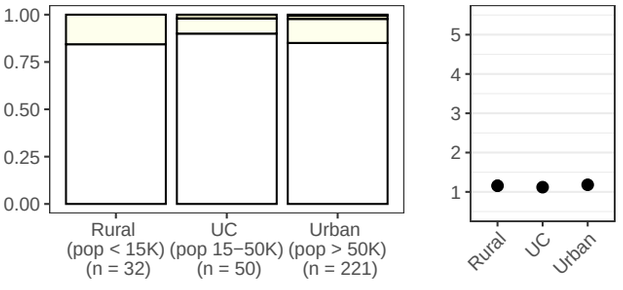
Race



Education



Urban/Rural



11.2 “Variation in every room”

The sentences in this section show what we have called “variation in every room,” meaning that there is substantial speaker variation, but it is not conditioned by geography. In some cases at least, we find no evidence that it is conditioned by any social category, and seems instead to be a matter of individual differences.

11.2.1 Double aux-raising

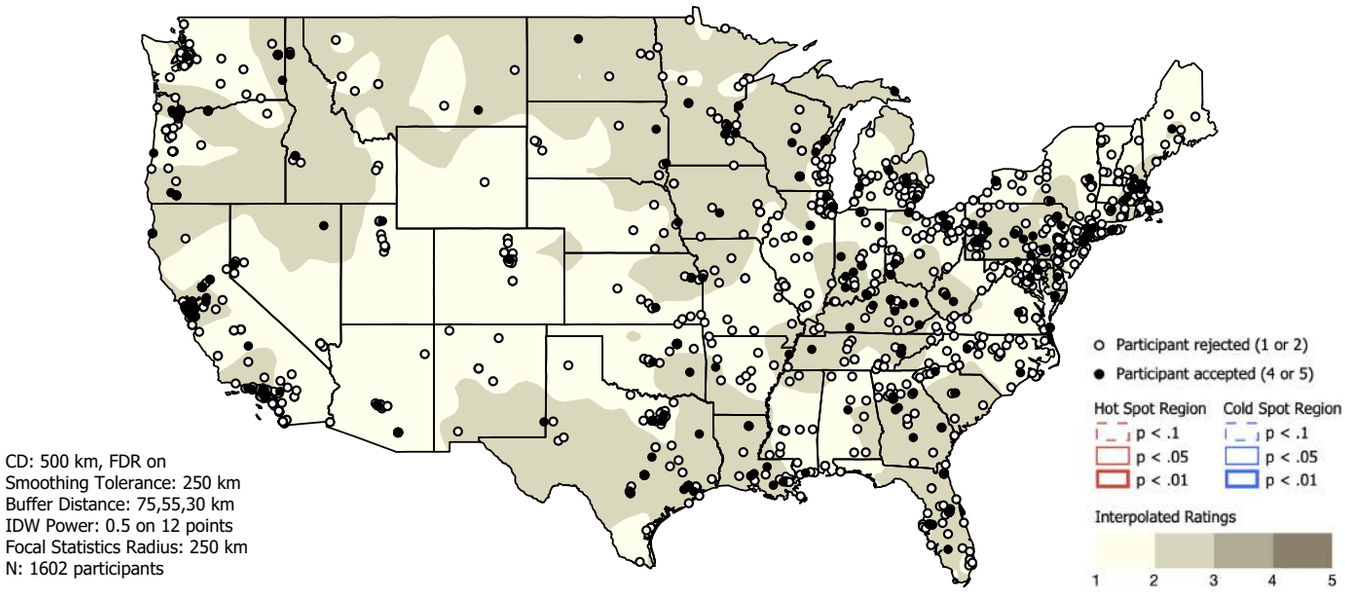
The Double Aux Raising sentences in (33) (1054 and 1033) were taken from Johnson (1988), who noted that they varied across speakers, and mapped with a subset of the data in Wood et al. (2015b:307).

(33)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1054	Should have the kids left?	1602	1.98	1.19	5, 5b, 8
F1033	Shouldn’t have Pam remembered her name?	1601	3.60	1.42	5, 5b, 8

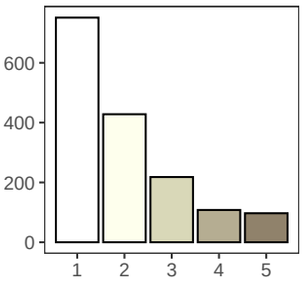
They showed no reliable regionally-based variation, although 1033 was more widely accepted than 1054.

F1054: "Should have the kids left?"

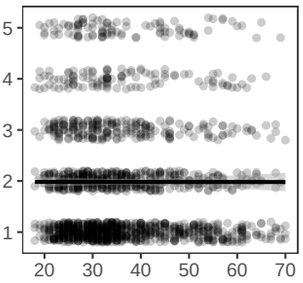


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1602 participants

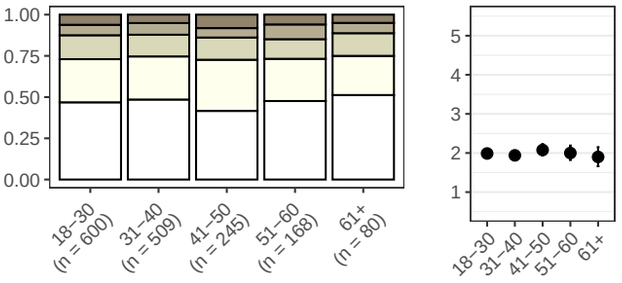
Judgments



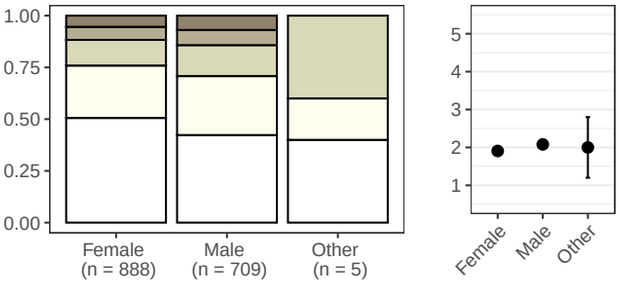
Age



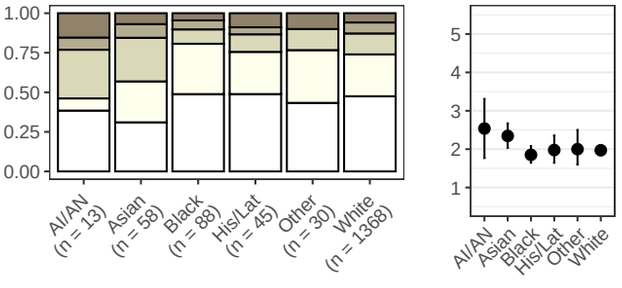
Age groups



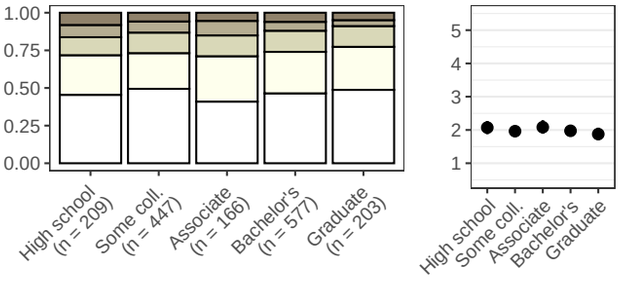
Gender



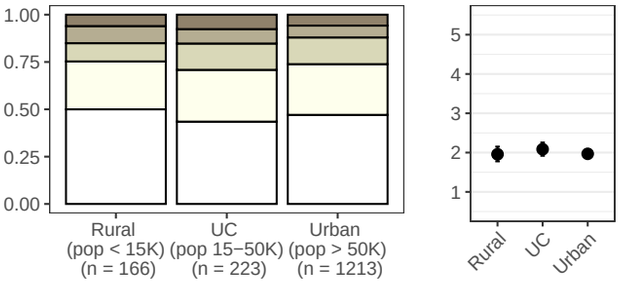
Race



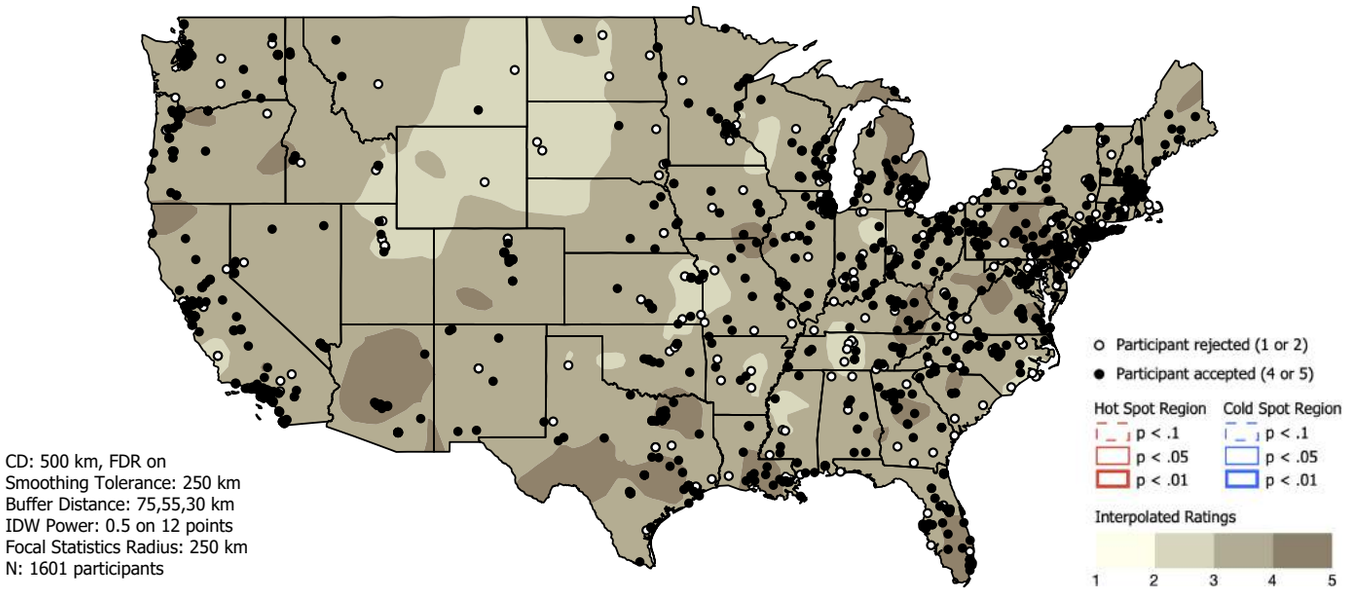
Education



Urban/Rural

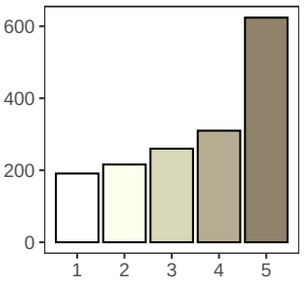


F1033: "Shouldn't have Pam remembered her name?"

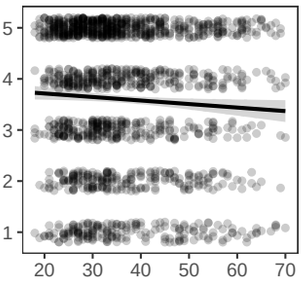


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 1601 participants

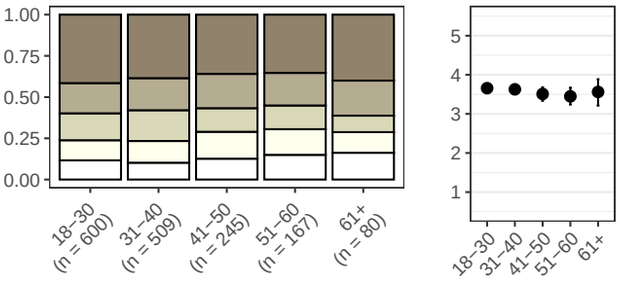
Judgments



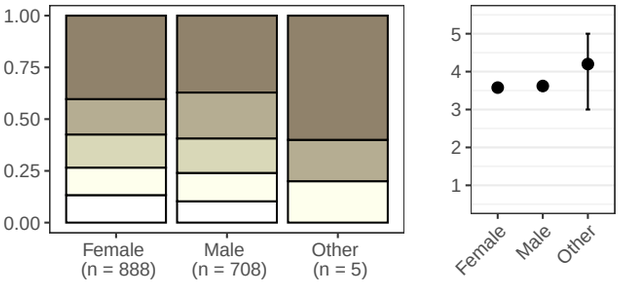
Age



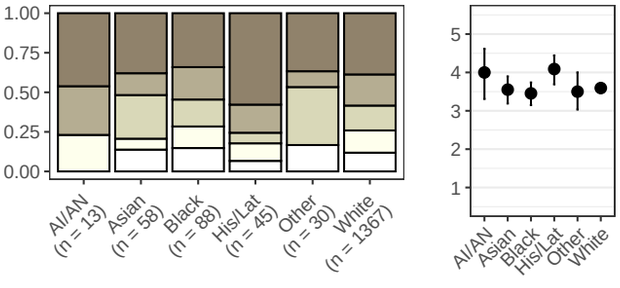
Age groups



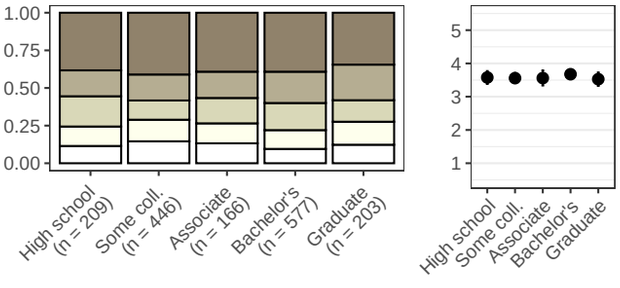
Gender



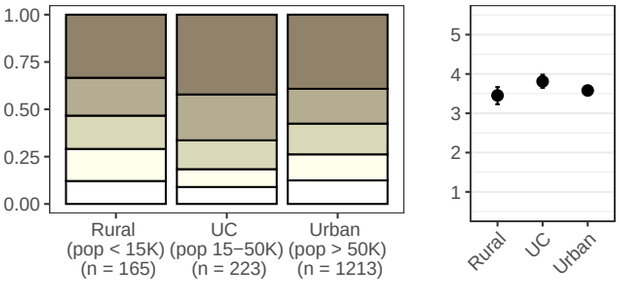
Race



Education



Urban/Rural



11.2.2 Object copy-raising

The Copy Raising sentences in (34), where the pronoun connected with the main clause subject is in object position, have been noted to vary across speakers in the syntax literature (see Landau 2011, Asudeh and Toivonen 2012).

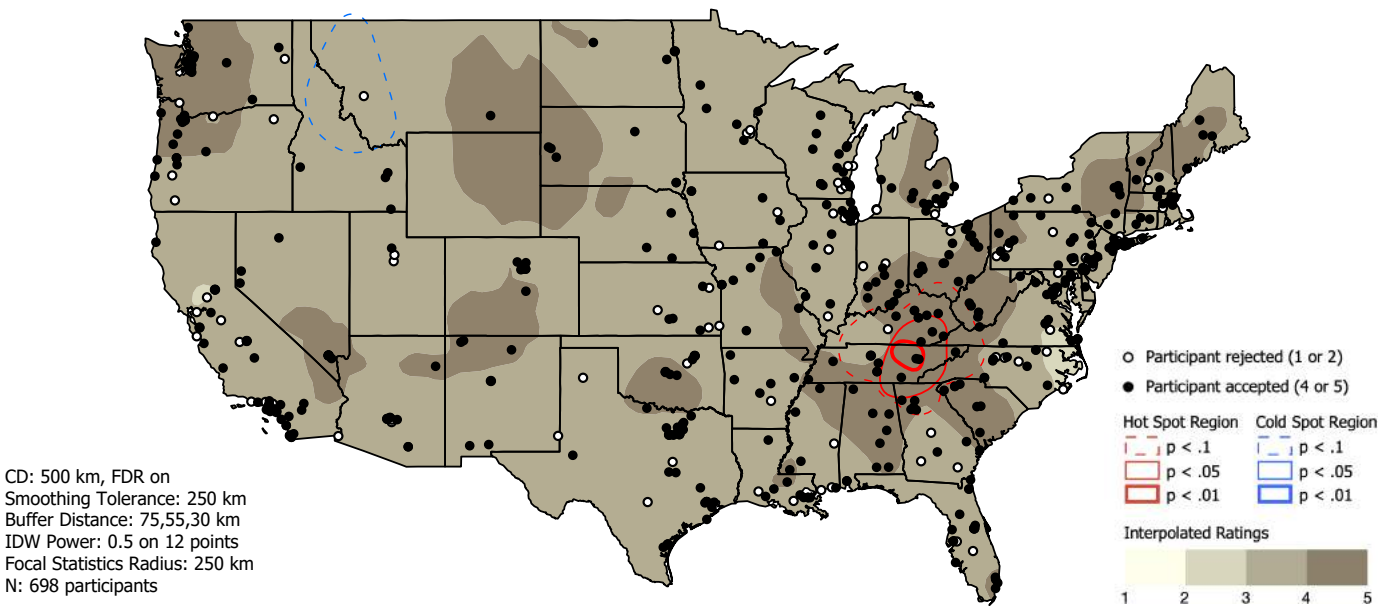
(34)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1039	John seems like Mary defeated him.	698	3.74	1.30	5b
F1039.1	John seems like Mary offended him.	365	3.47	1.37	5

A subset of this data has been mapped in Zanuttini et al. (2018:10), as an example of a sentence that shows variation that is not regionally based. The FDR maps presented below for 1039 shows one small hot spot in eastern Tennessee and Southeastern Kentucky. The non-FDR version shows a larger, more robust hot spot region (and some cold spot regions that are likely to be false positives). There is a chance that this reflects a real pattern, since resumptive pronouns (usually connected with relative clauses and the like) are often mentioned as characteristic of Appalachian English. However, this is a very different kind of resumptive pronoun, syntactically, and looking at the wide range of acceptance, the most we could probably say is that there may be regions where the construction, which generally exists everywhere but varies across speakers, simply has far fewer people who reject it. Note that no significant result is found when the Critical Distance is set to 150 km, 200 km, or 300 km, and as can be seen below, shows up with a smaller region size at 400 km. It may be worth looking into further, to verify whether this result is replicated and/or reproduced with different parameter settings. There is a fairly good chance that this is a false positive. Note that this result is not found with 1039.1, although the N is much smaller there, so it is hard to make anything of that one way or the other.

With FDR Correction: 500 km CD

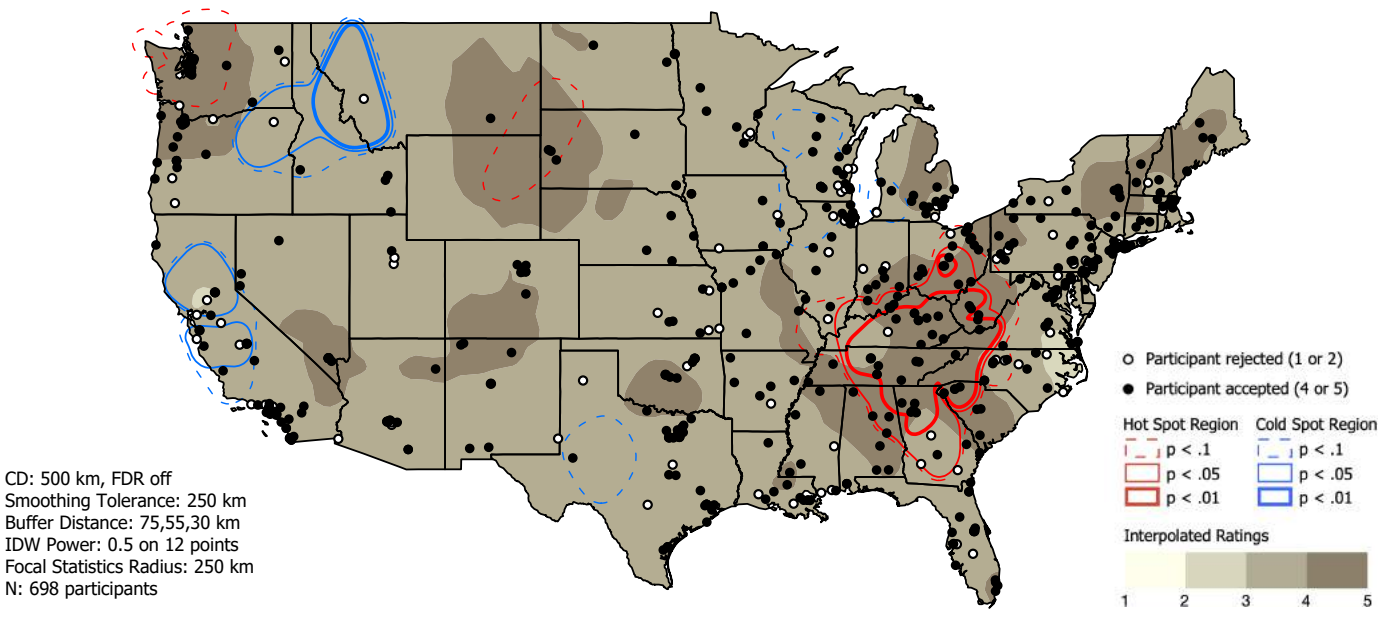
F1039: "John seems like Mary defeated him."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

Without FDR Correction: Interpret with caution

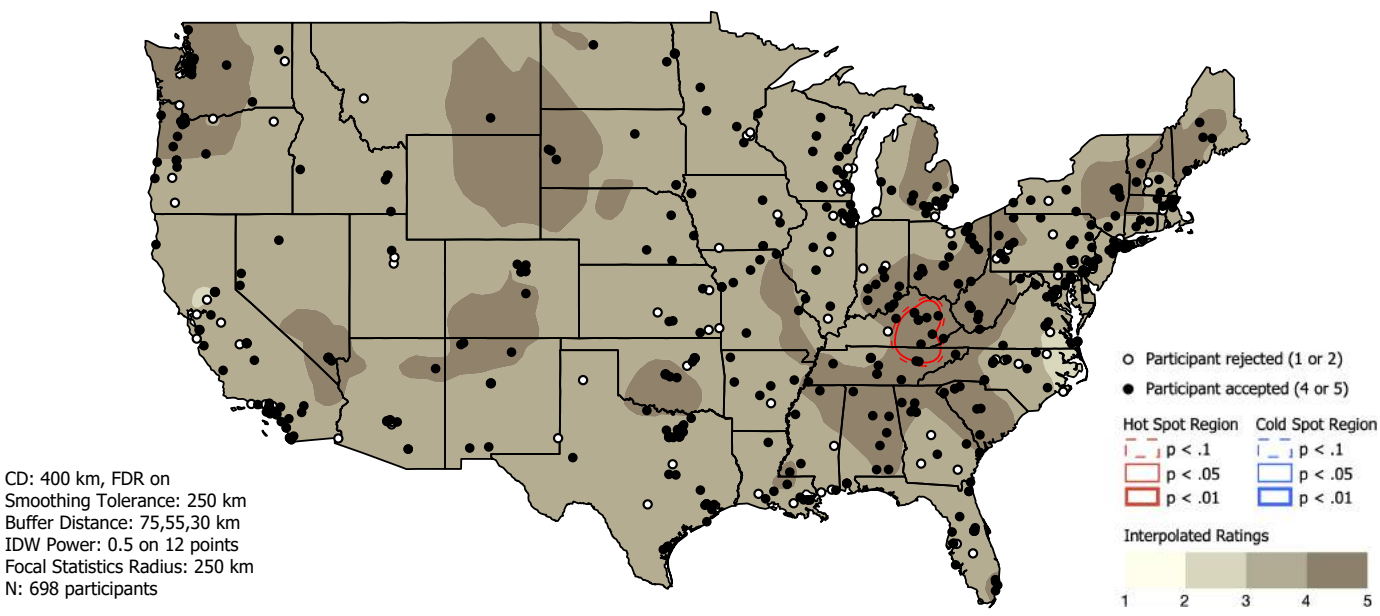
F1039: "John seems like Mary defeated him."



CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

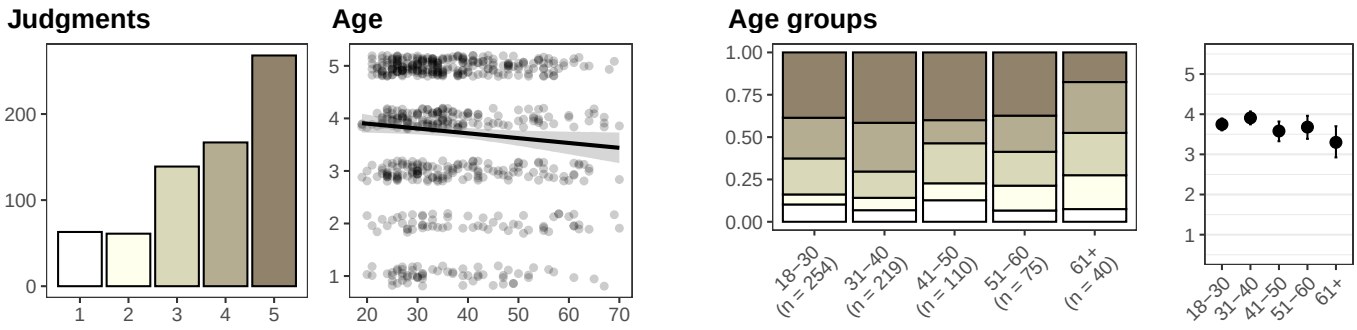
With FDR Correction: 400 km CD

F1039: "John seems like Mary defeated him."

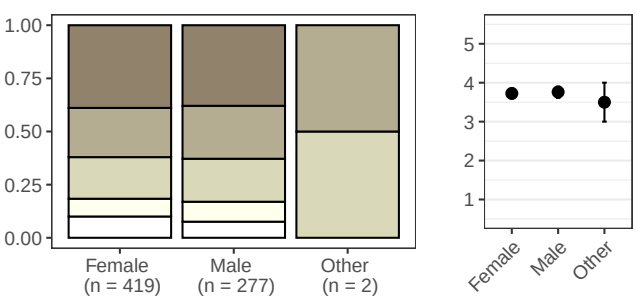


CD: 400 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 698 participants

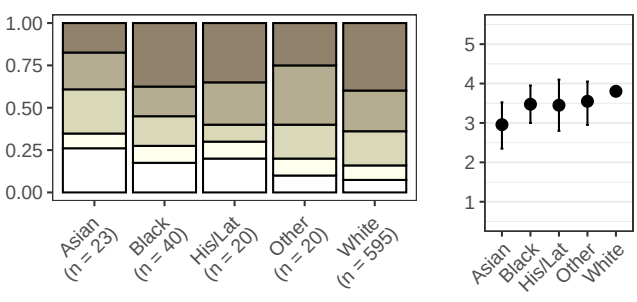
Judgments **Age** **Age groups**



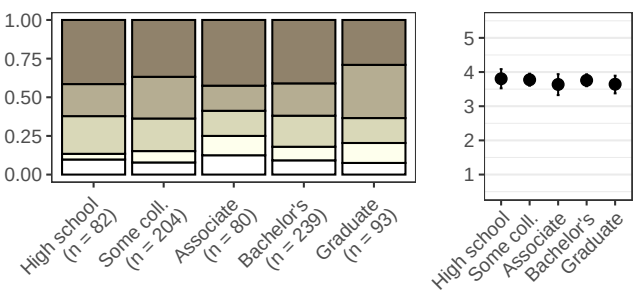
Gender



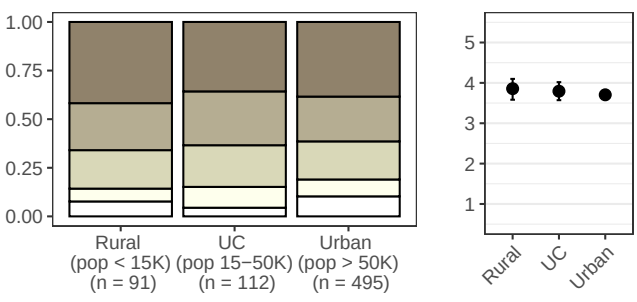
Race



Education

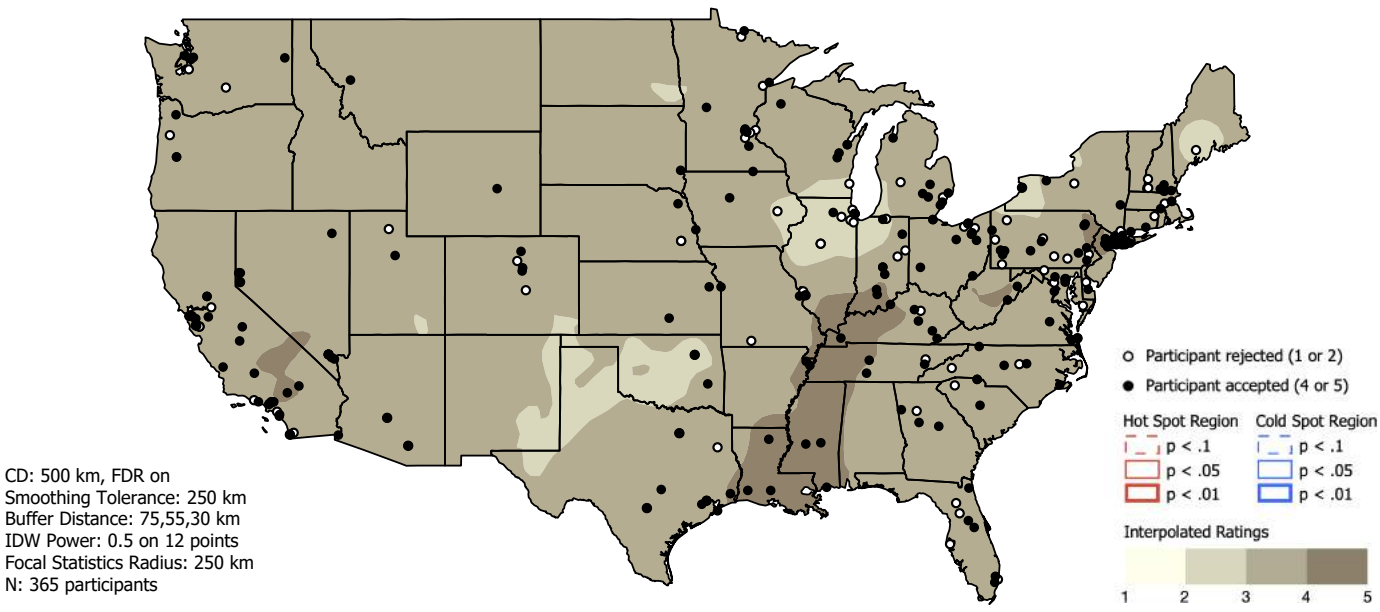


Urban/Rural



With FDR Correction

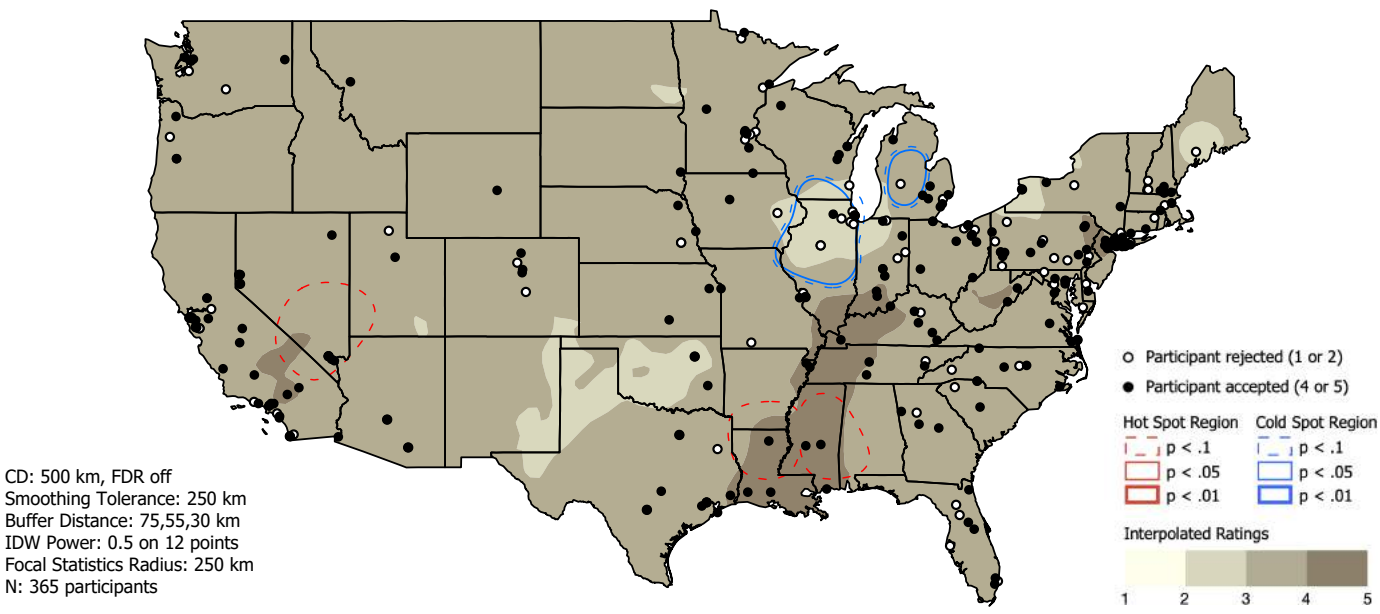
F1039.1: "John seems like Mary offended him."



CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 365 participants

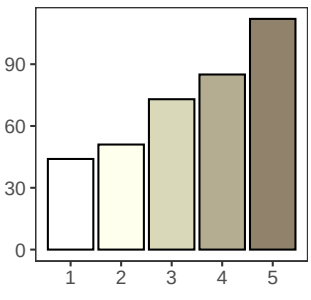
Without FDR Correction: Interpret with caution

F1039.1: "John seems like Mary offended him."

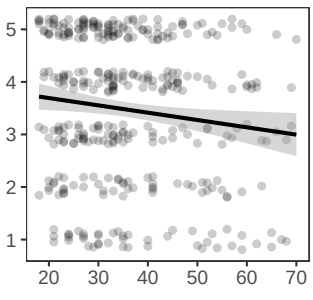


CD: 500 km, FDR off
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 365 participants

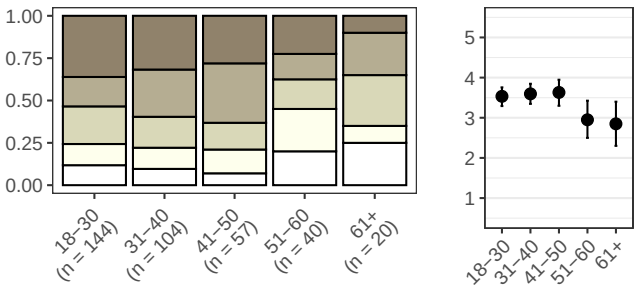
Judgments



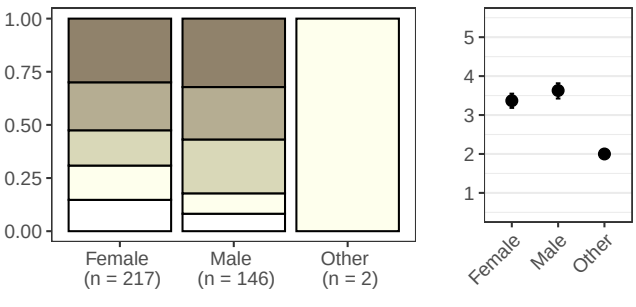
Age



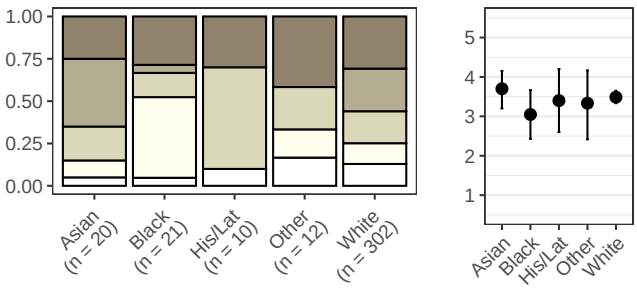
Age groups



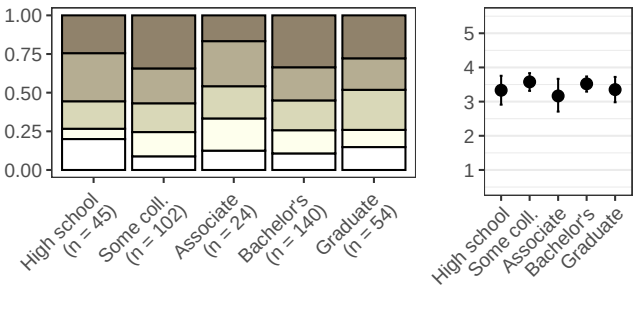
Gender



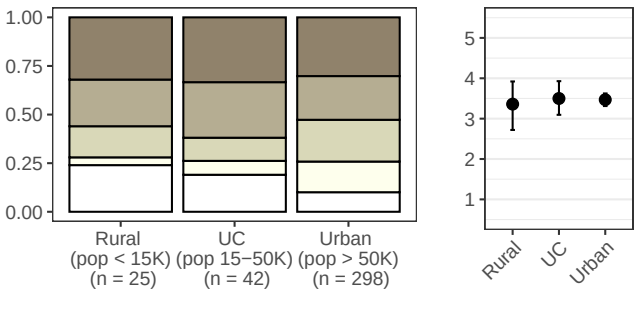
Race



Education



Urban/Rural



11.2.3 Feel like that

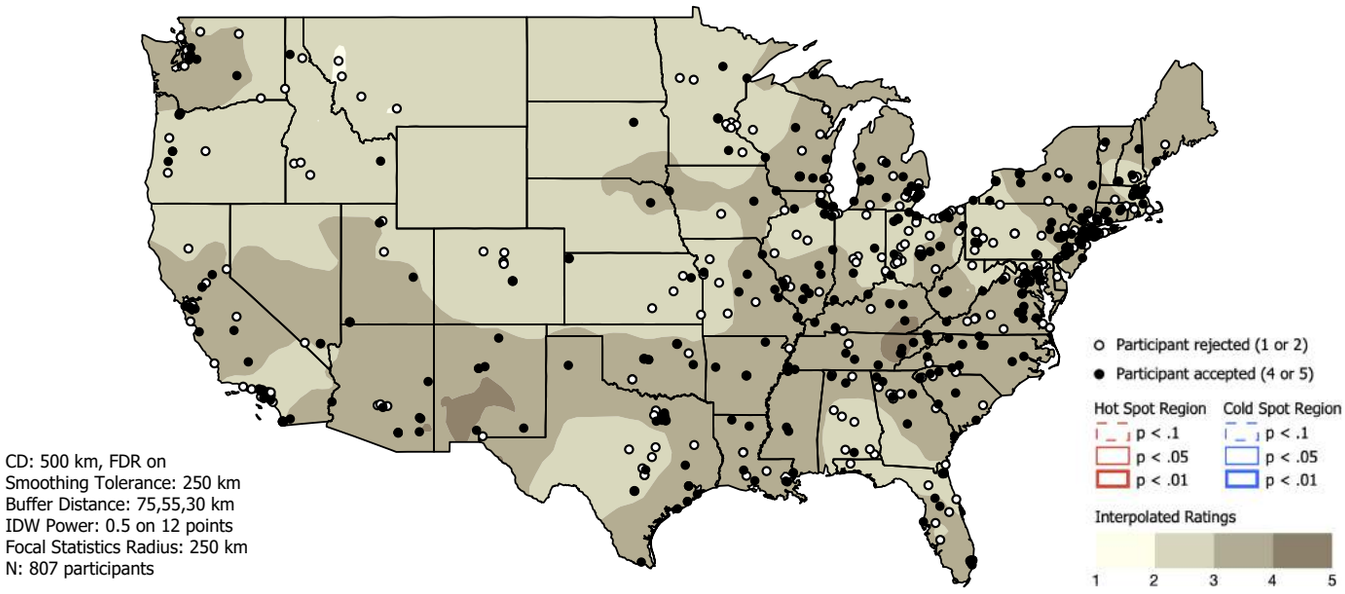
The sentence in (35) was originally noticed by Aidan Kaplan, and its syntax was the topic of Kaplan (2019).

(35)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1165	I feel like that we should win this game.	807	3.12	1.47	9

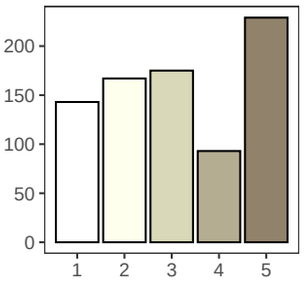
A map of this data is presented in Kaplan (2019:5), and shows no evidence of regionally-based variation.

F1165: "I feel like that we should win this game."

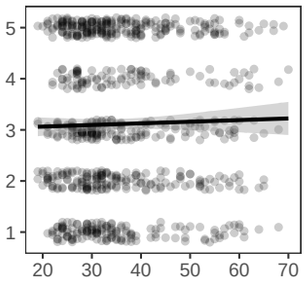


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

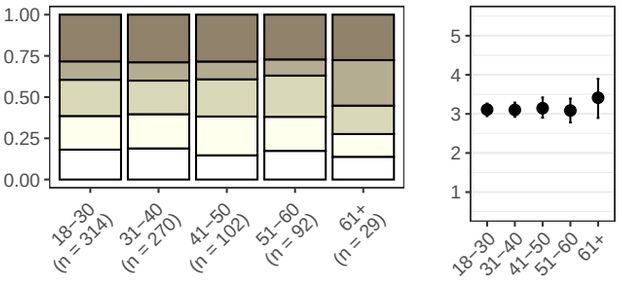
Judgments



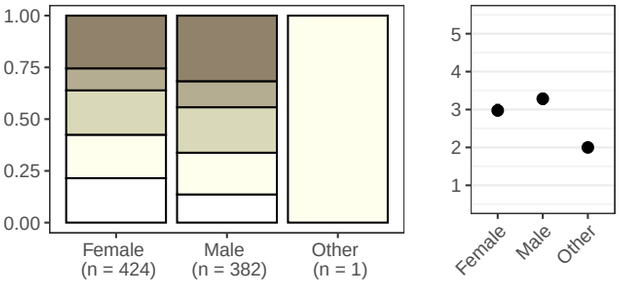
Age



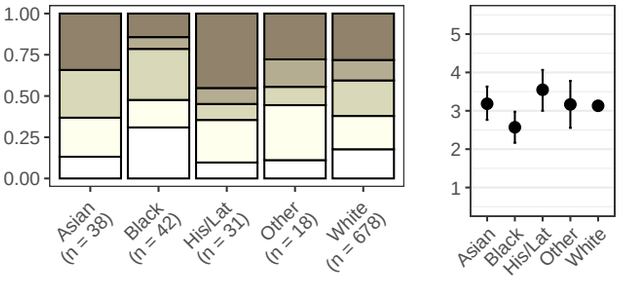
Age groups



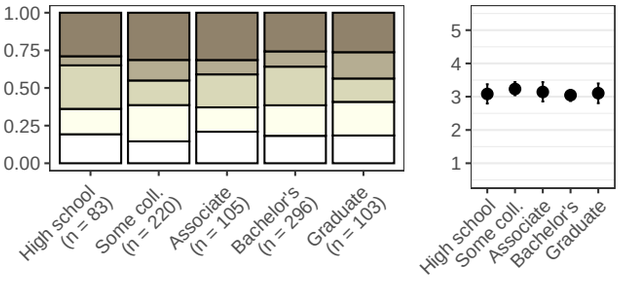
Gender



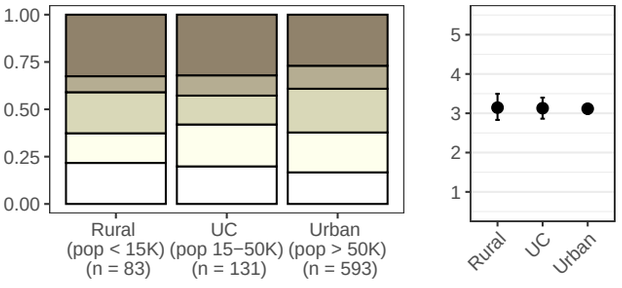
Race



Education



Urban/Rural



11.2.4 'Promise'-control

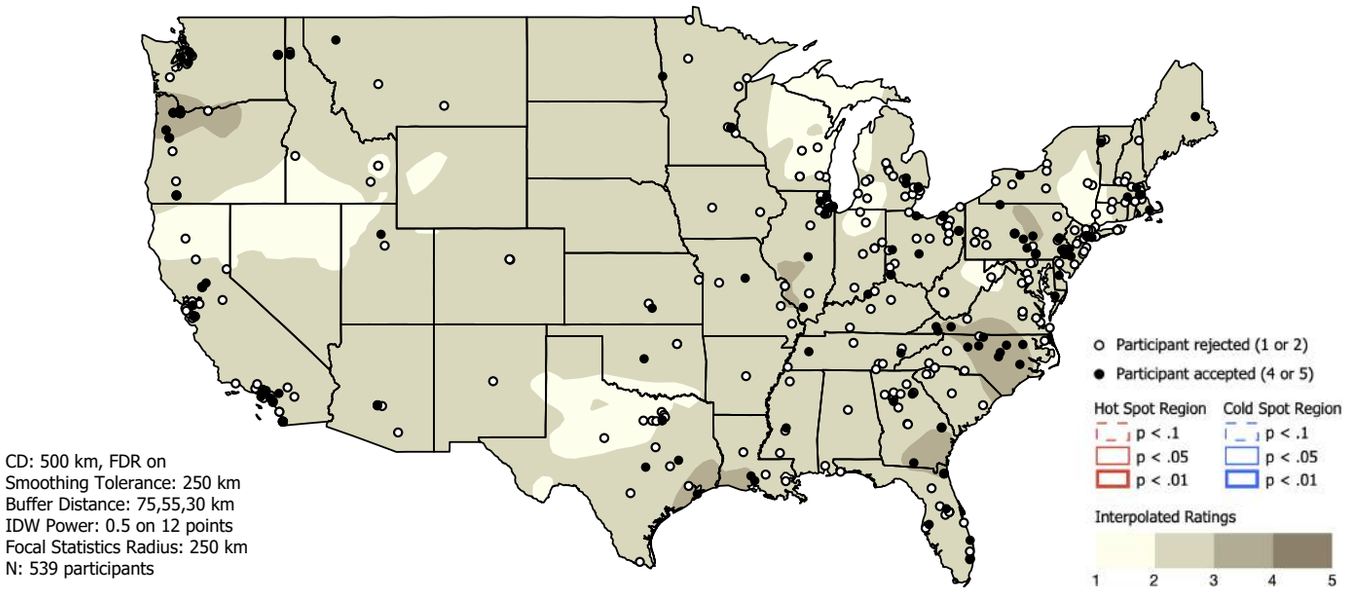
The sentence in (36) has been noted in the syntax literature to vary across speakers (Zubizarreta 1982, Hartman 2011:127, Landau 2013:149). We refer to this as 'promise' control because the subject *John* is understood as the subject of the main verb and the infinitive verb, despite the presence of an object (*me*). This pattern is most famous for the verb *promise*, but here appears with *threaten*.

(36)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1040	John threatened me to come to my house.	539	2.42	1.24	8

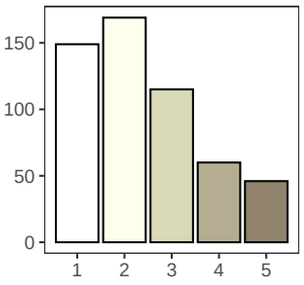
We have mapped out this sentence in Wood (2019b:1379), and as noted there (see also Zanuttini et al. 2018:9), there is no evidence for regionally-based variation for this sentence.

F1040: "John threatened me to come to my house."

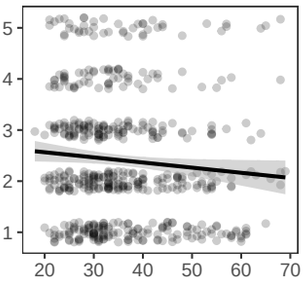


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 539 participants

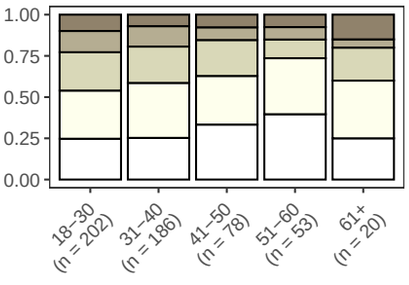
Judgments

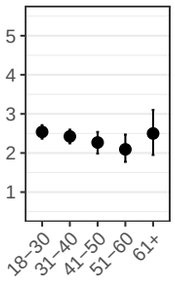


Age

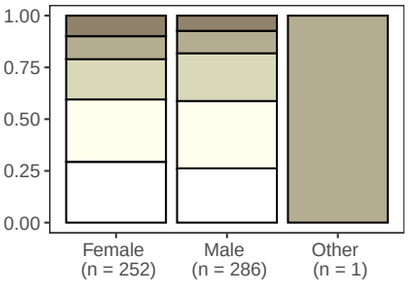


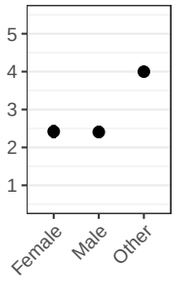
Age groups



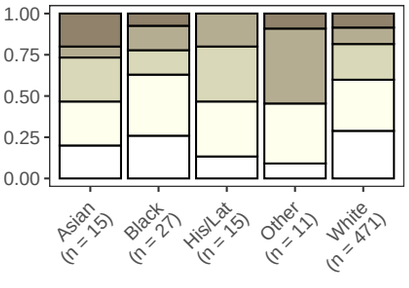


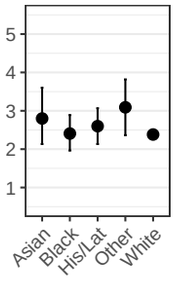
Gender



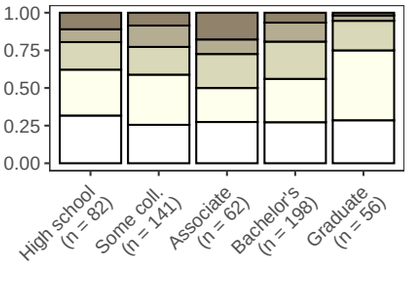


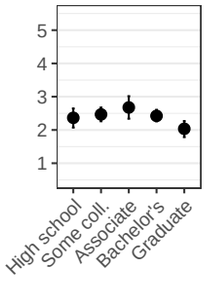
Race



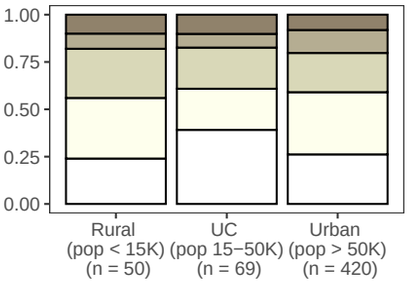


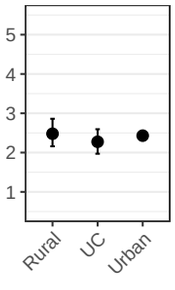
Education





Urban/Rural





11.2.5 Swiping without sluicing

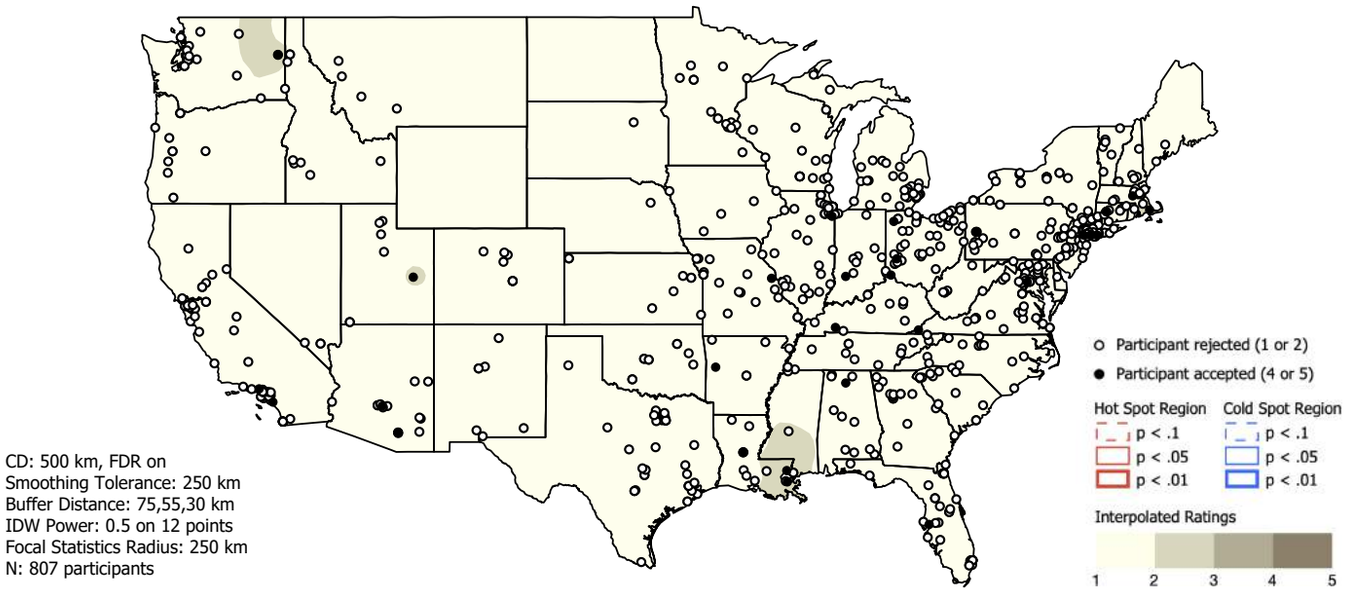
The swiping sentences in (37) have generally considered to be unacceptable in the syntax literature (see Merchant 2002, and the references in Tyler 2017), although as noted by Tyler (2017), Kayne (2015:16) claims that some speakers find such sentences acceptable.

(37)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1171	Who to were you talking?	807	1.42	0.84	9
F1172	What about were you talking?	807	1.97	1.11	9

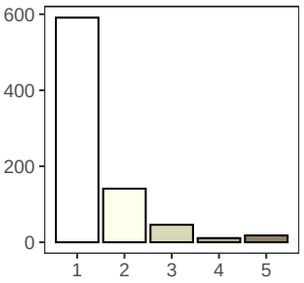
In our surveys, there was substantial speaker variation in 1172, although it is not regionally based and was highly marked overall, while 1171 is almost universally rejected.

F1171: "Who to were you talking?"

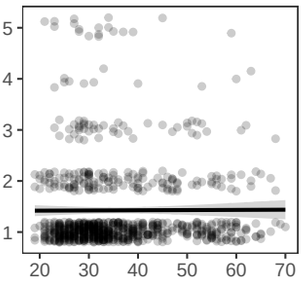


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

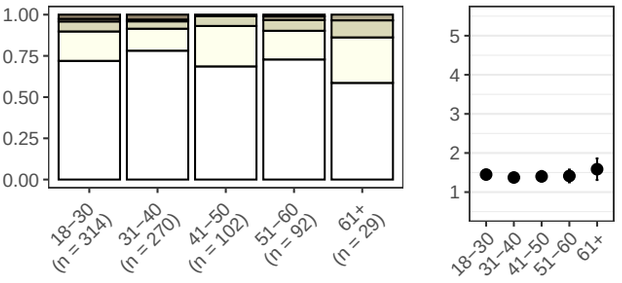
Judgments



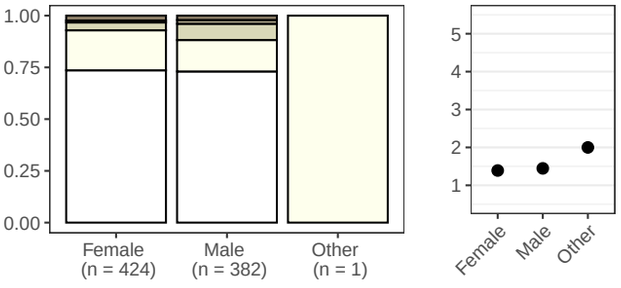
Age



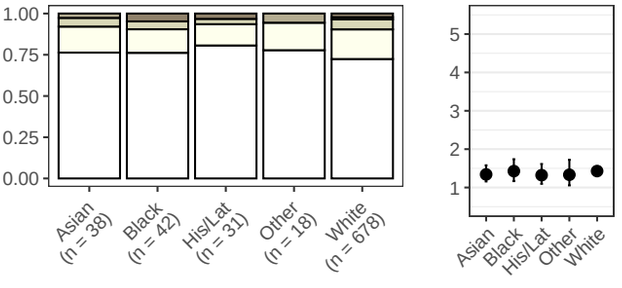
Age groups



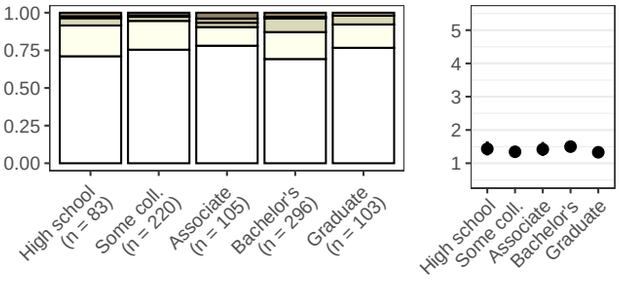
Gender



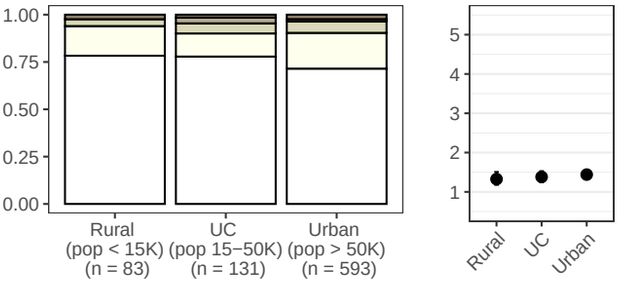
Race



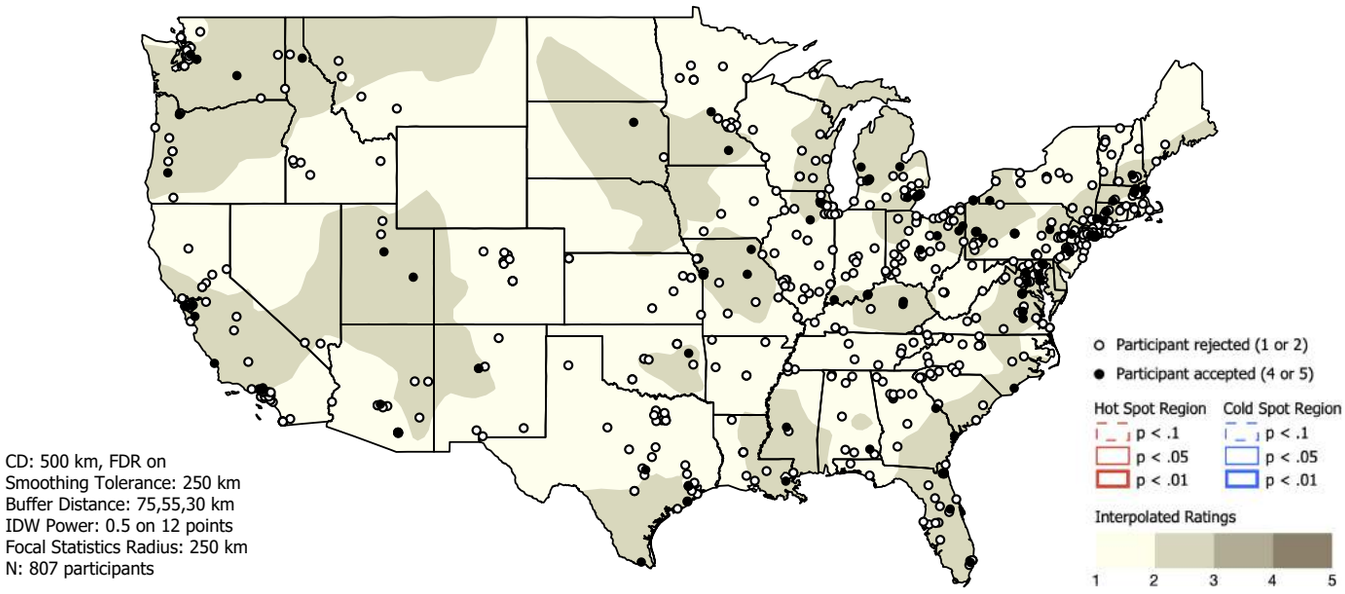
Education



Urban/Rural

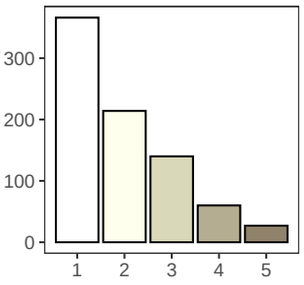


F1172: "What about were you talking?"

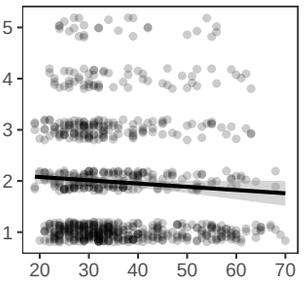


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

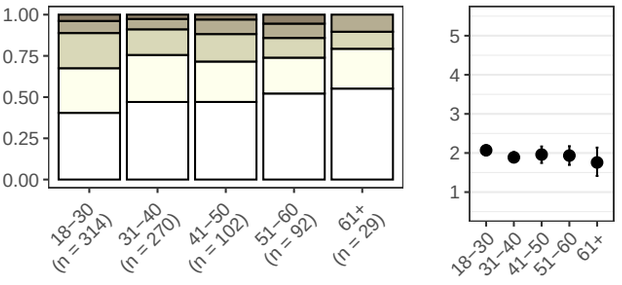
Judgments



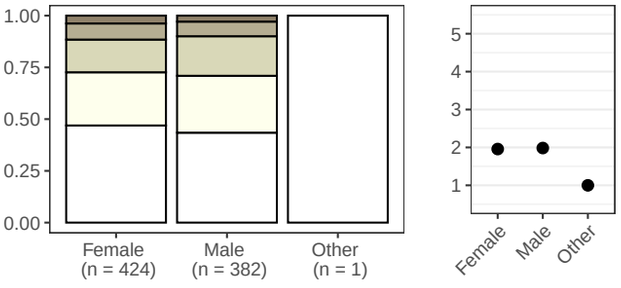
Age



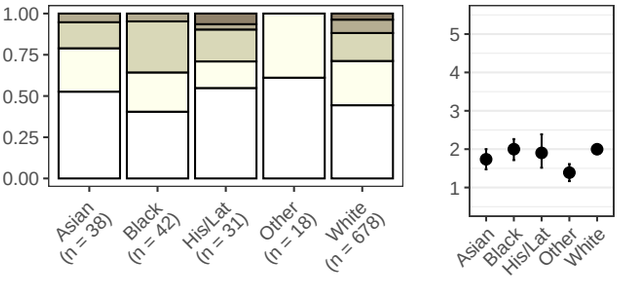
Age groups



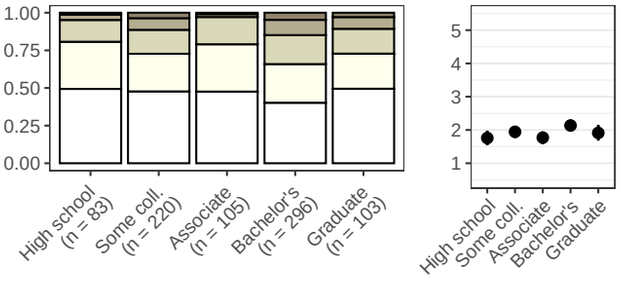
Gender



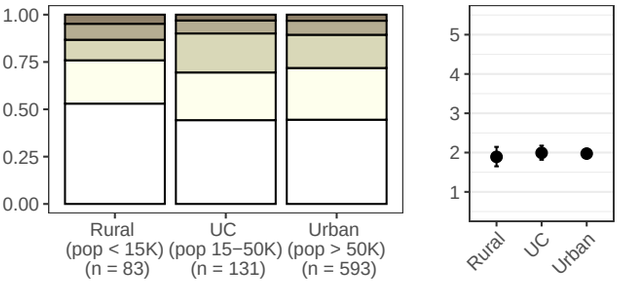
Race



Education



Urban/Rural



11.2.6 *Where nice*?

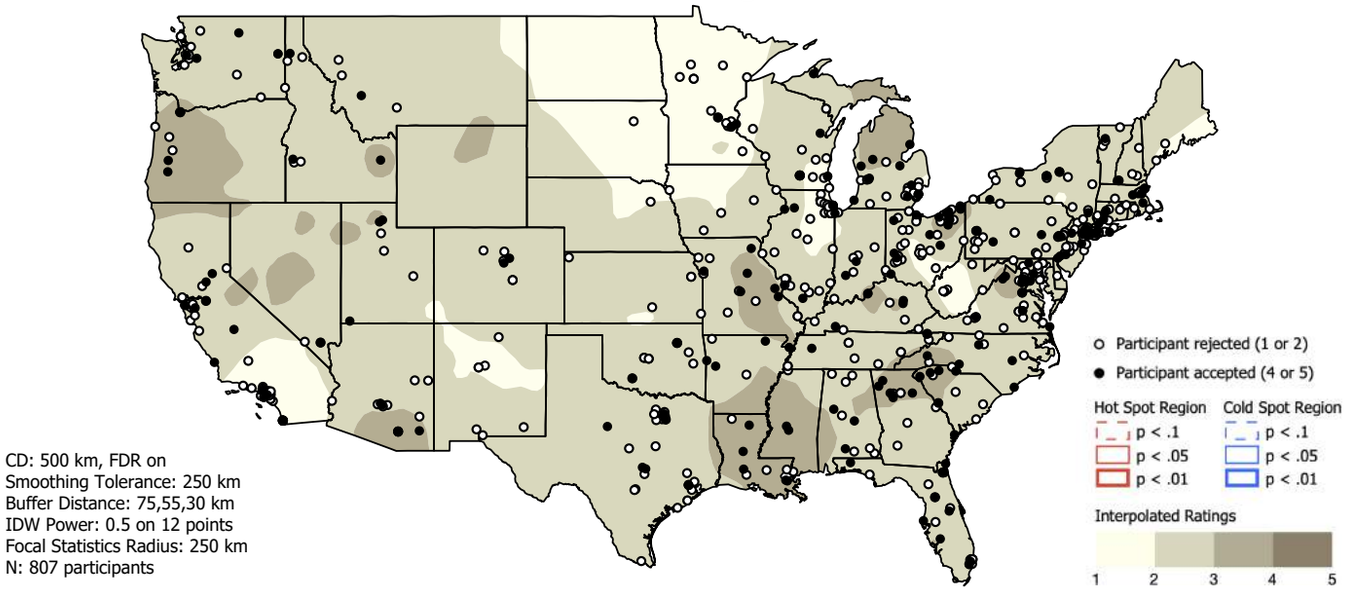
The sentence in (38) was brought to our group by Matthew Tyler, who also found that it was the topic of Bazalgette (2010) (focusing on English spoken in the U.K.).

(38)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1173	I want to take my girlfriend on a nice date—where nice should we go?	807	2.49	1.41	9

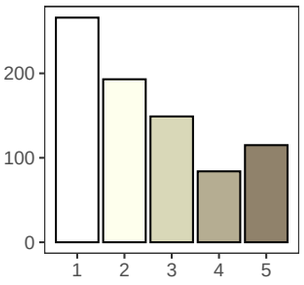
Our results presented in the map below show substantial speaker variation, but no evidence that this variation is regionally conditioned.

F1173: "I want to take my girlfriend on a nice date—where nice should we go?"

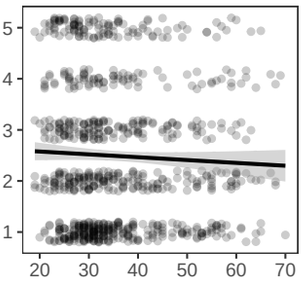


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 807 participants

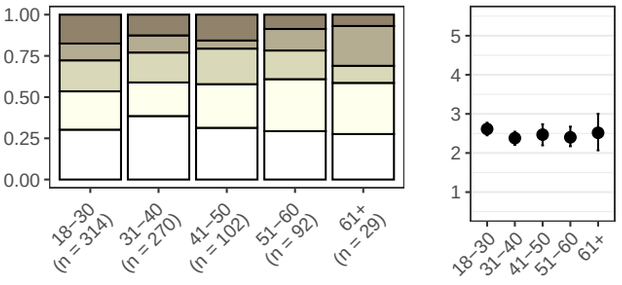
Judgments



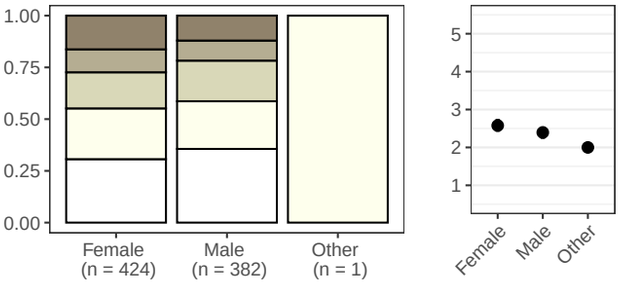
Age



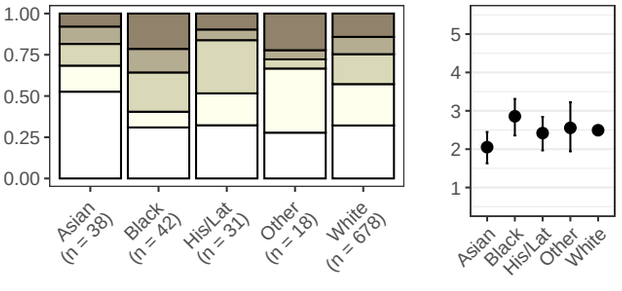
Age groups



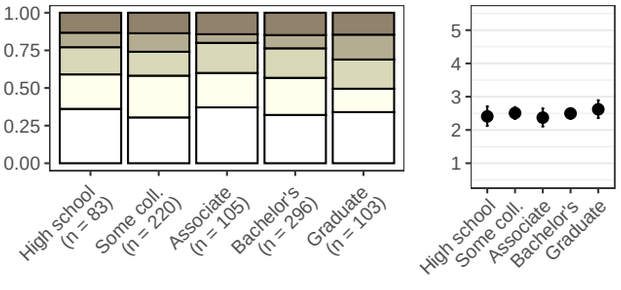
Gender



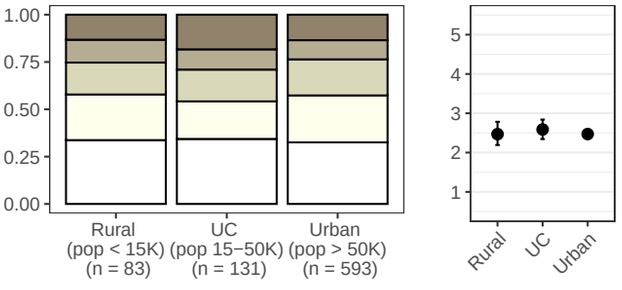
Race



Education



Urban/Rural



11.2.7 Null copula

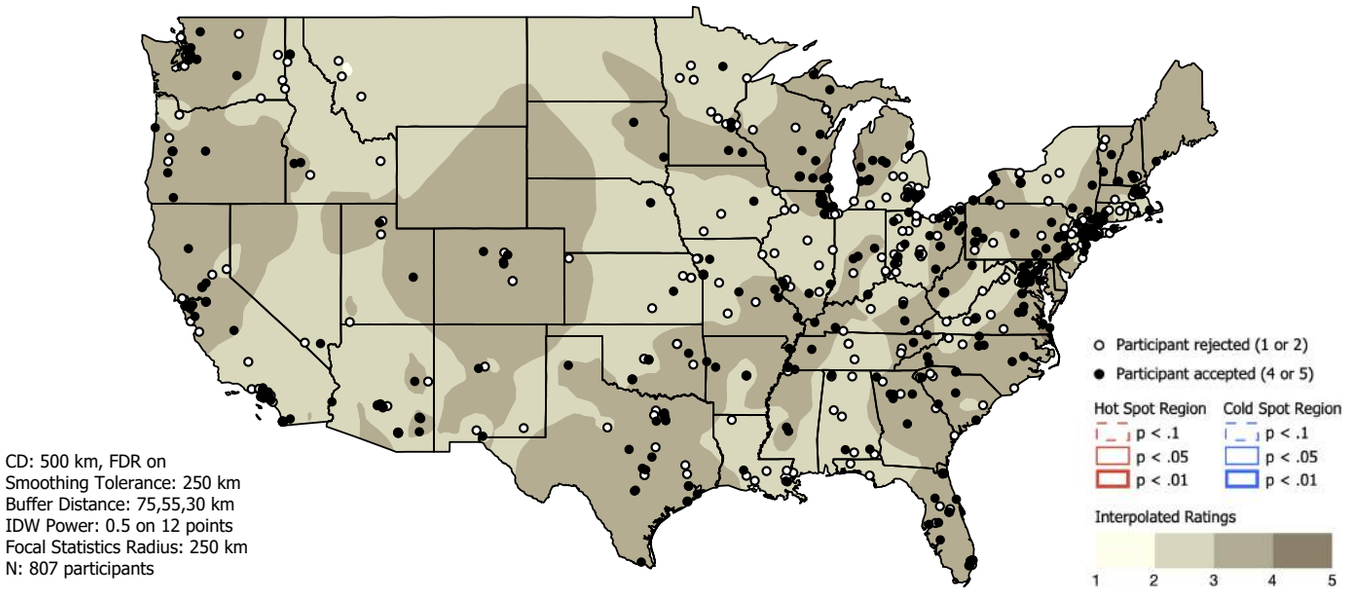
The null copula sentence in (39) was adapted from Green (2002).

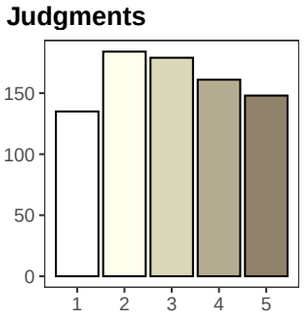
(39)

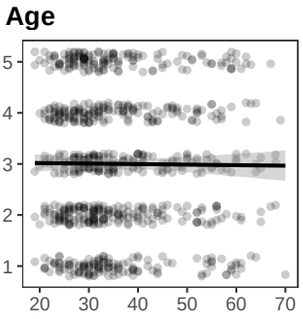
Sentence	Sentence text	Responses	Mean	SD	Survey
F1161	Some of them big, but some of them small.	807	3.00	1.35	9

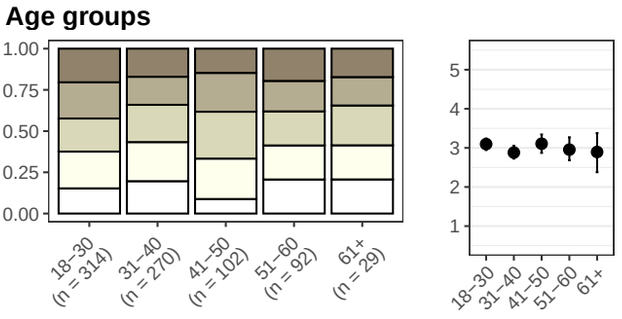
Our initial survey results show no reliable geographic pattern associated with this sentence. Sentences of this sort are generally considered to be characteristic of African American English, and have never (to our knowledge) been claimed to be geographically restricted, so this comes as no particular surprise.

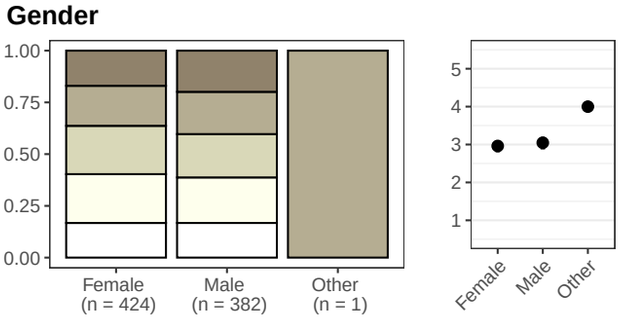
F1161: "Some of them big, but some of them small."

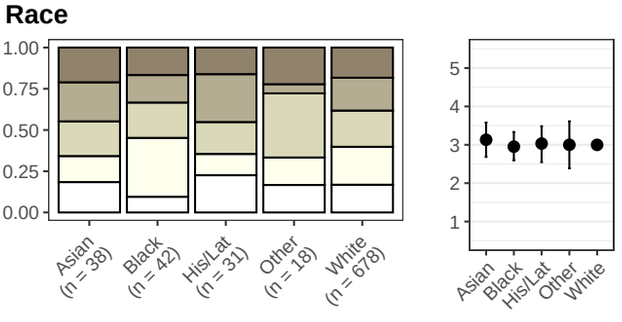


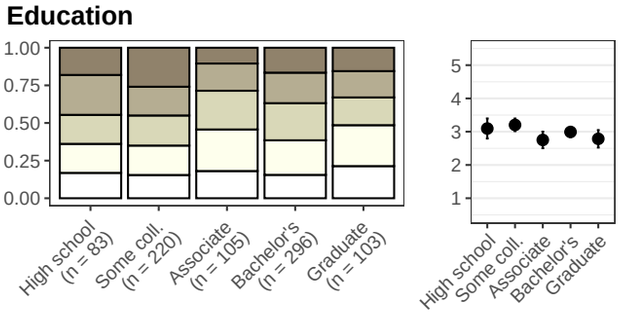


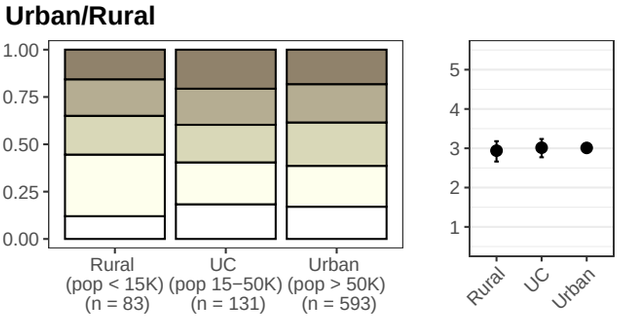












11.2.8 British *do*

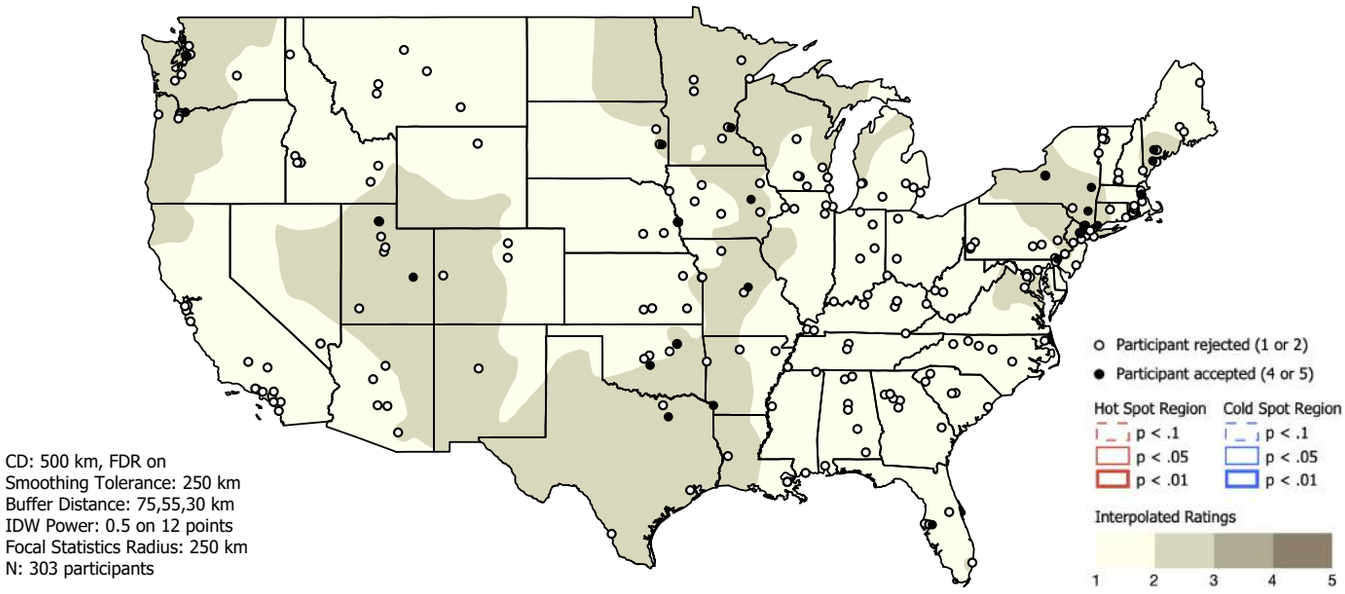
The sentence in (40) is an example of what is often known in the syntax literature as "British *do*" (Haddican 2007; Baltin 2012; Thoms and Sailor 2018).

(40)

Sentence	Sentence text	Responses	Mean	SD	Survey
F1144	I haven't seen it yet, but I may do.	303	1.85	1.01	7

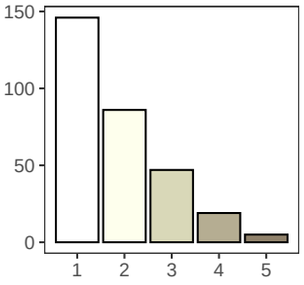
Our maps show that it is widely rejected in the United States, although some speakers seem to accept it. We have not found any reliable geographic pattern to these results, however.

F1144: "I haven't seen it yet, but I may do."

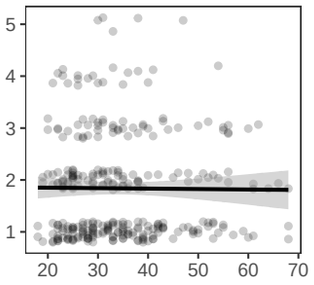


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Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

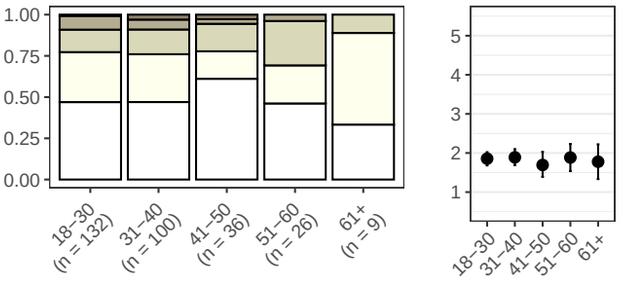
Judgments



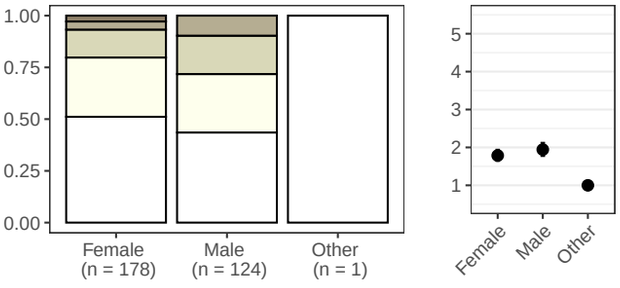
Age



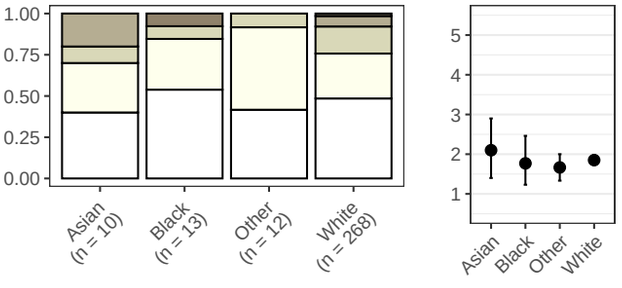
Age groups



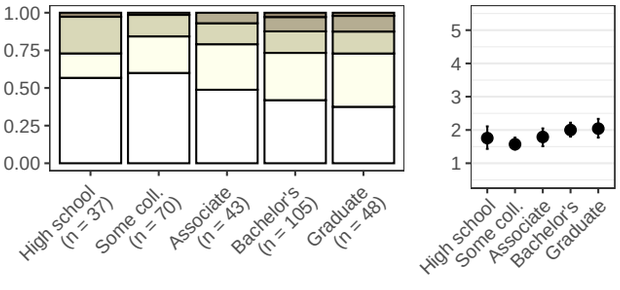
Gender



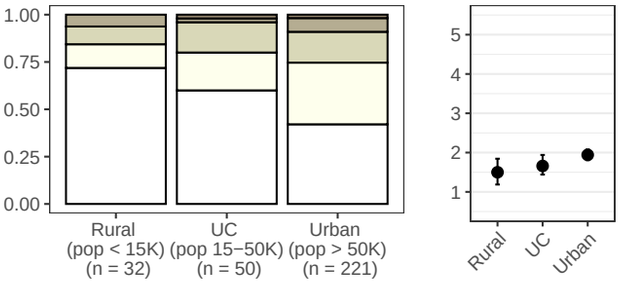
Race



Education



Urban/Rural



11.3 Meaning rather than morphosyntax

The sentences in this section were of a different nature from many of the others, in that their acceptability depends on aspects of their meaning rather than their morphosyntax. The hypothesis we were testing was that there would be an age effect, with younger speakers judging them as more acceptable than older speakers. However, our surveys were arguably not optimally designed to capture this aspect of a sentence's acceptability, and most of these sentences were judged acceptable with very little variation. There may be some subtle age effects, but we have not yet conducted the in depth analysis needed to determine this conclusively.

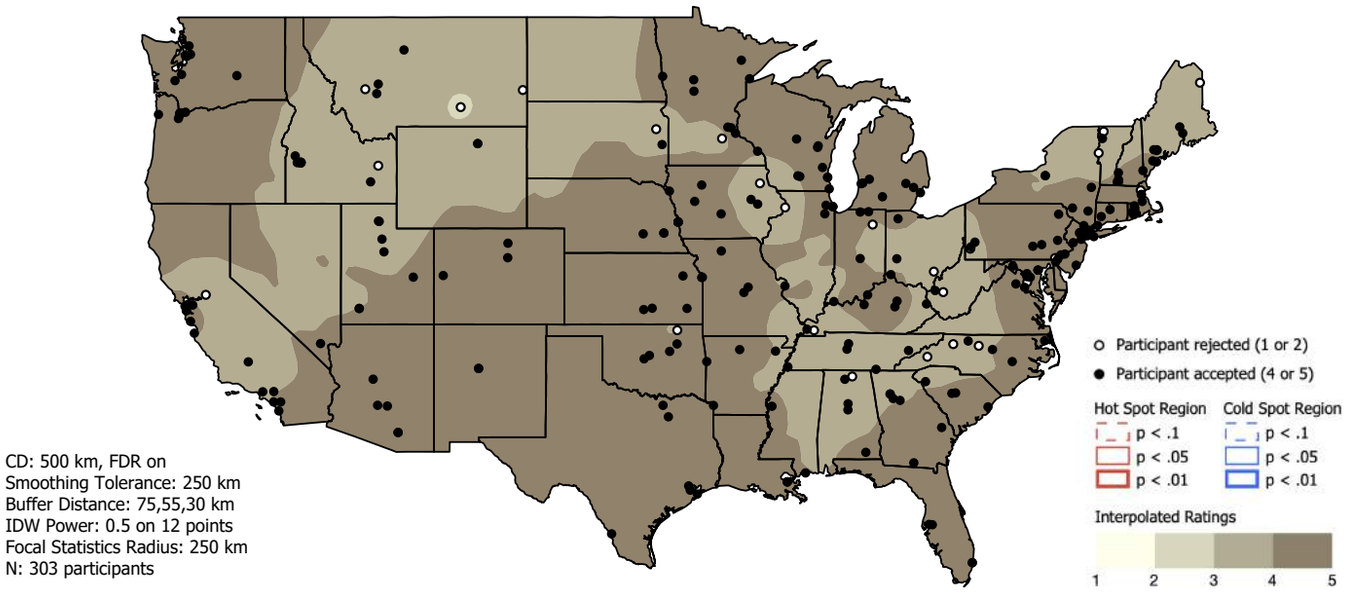
11.3.1 *If not*

The *if not* sentences 1142 and 1143 showed some variation, although most people accepted them, and there is no evidence that the rejections were regionally based.

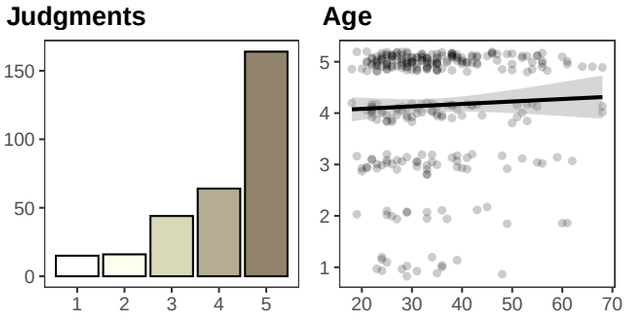
(41)

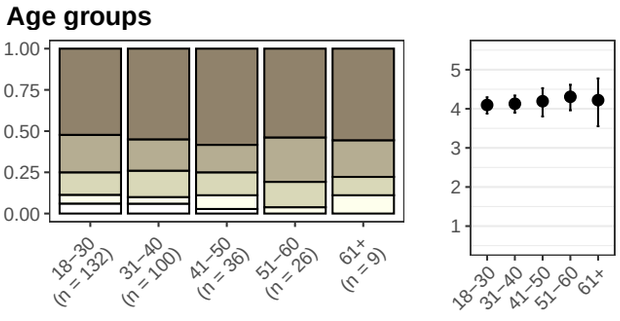
Sentence	Sentence text	Responses	Mean	SD	Survey
F1142	I might major, if not minor, in chemistry.	303	4.14	1.15	7
F1143	He's the best, if not one of the best, in the whole league.	303	3.92	1.31	7

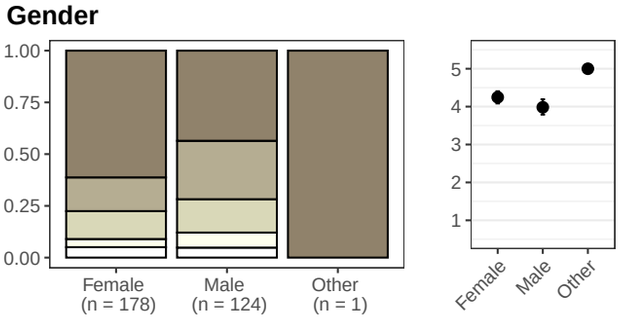
F1142: "I might major, if not minor, in chemistry."

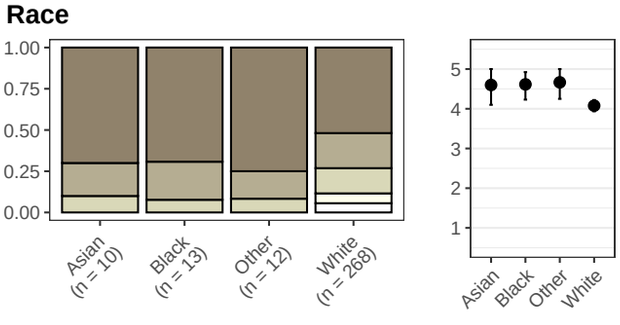


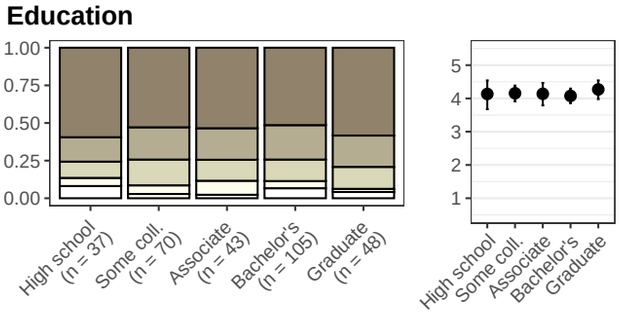
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Focal Statistics Radius: 250 km
N: 303 participants

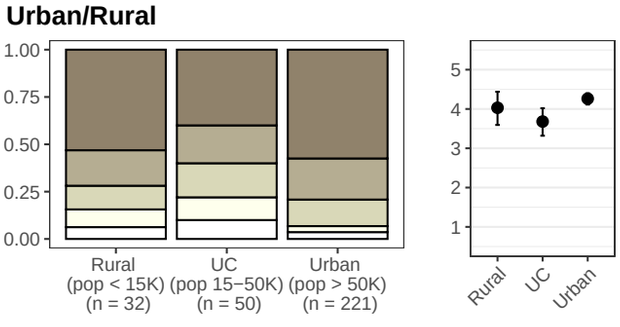




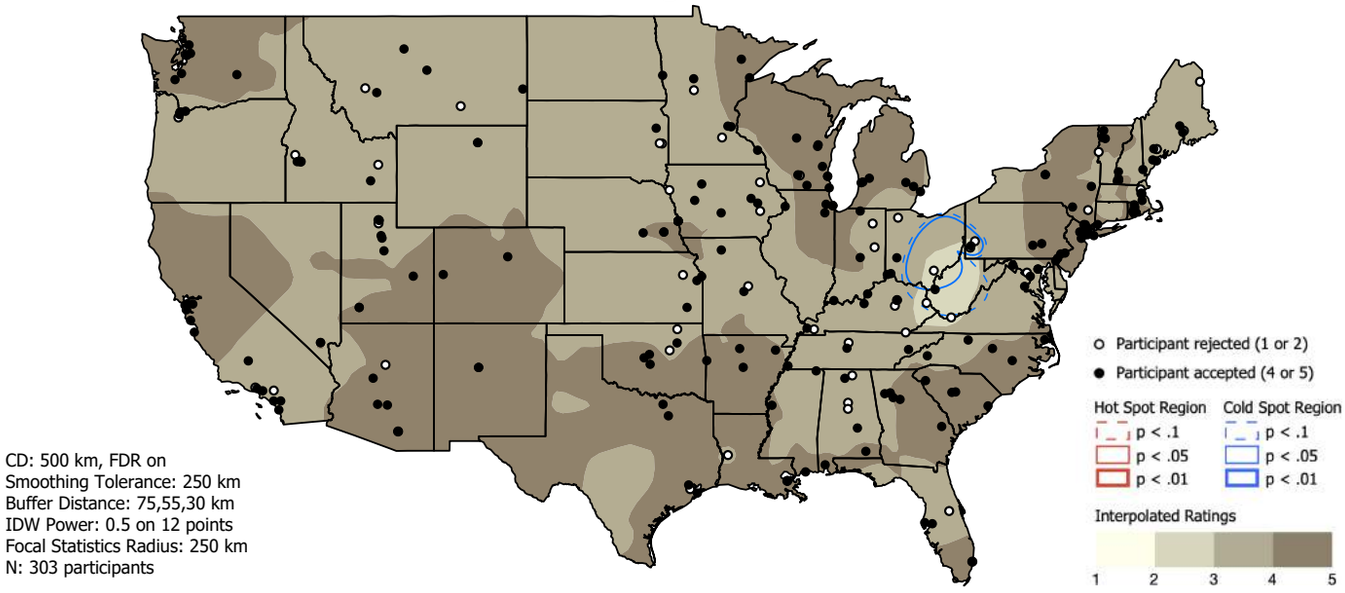






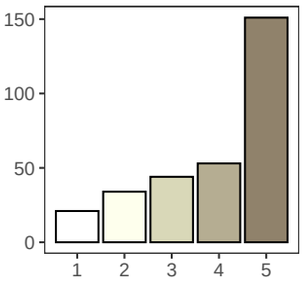


F1143: "He's the best, if not one of the best, in the whole league."

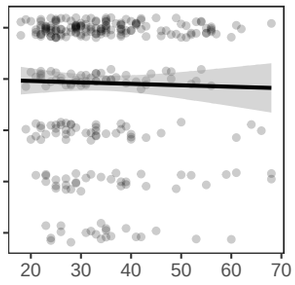


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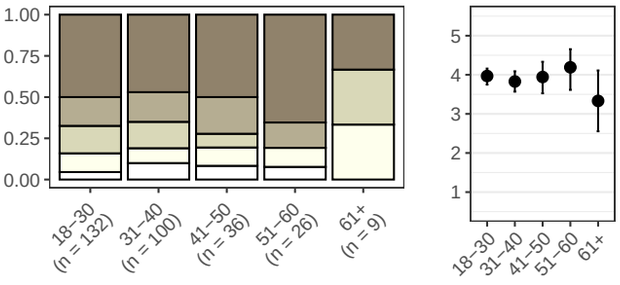
Judgments



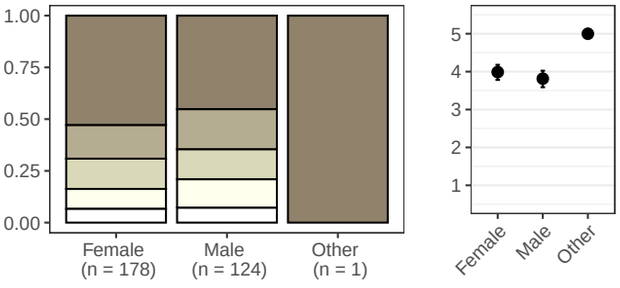
Age



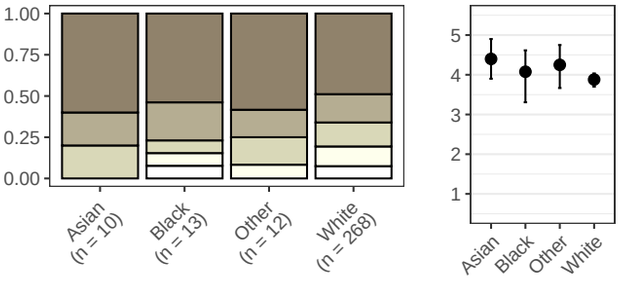
Age groups



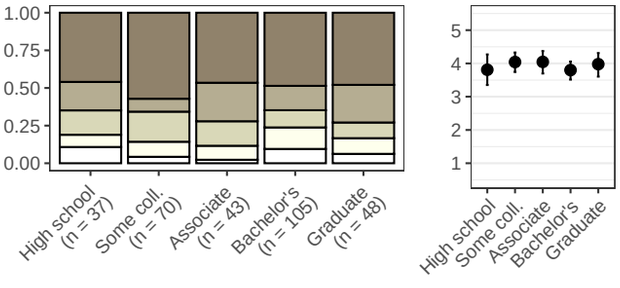
Gender



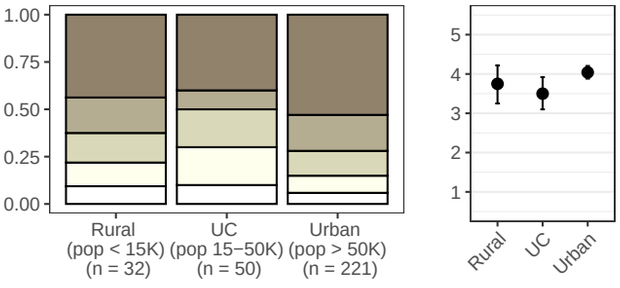
Race



Education



Urban/Rural



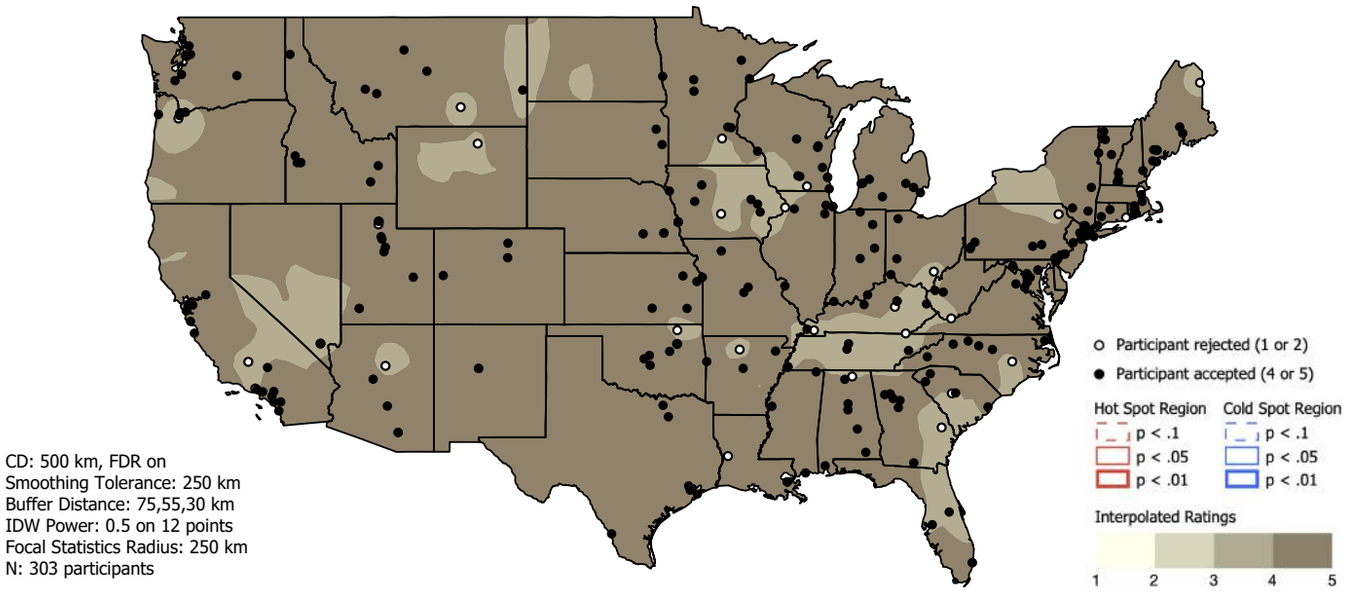
11.3.2 *Let alone*

Among the *let alone* sentences, 1135 was accepted by the vast majority of participants. 1134 and 1136 were rejected by slightly more participants, but there is no evidence that there is a regional basis to this variation. The weak cold spot in sentence 1136 is almost certainly a false positive. (It is in a sparsely populated area, the sentence has a high overall mean and low SD, and the signficance at any rate is only $p < .1$.)

(42)

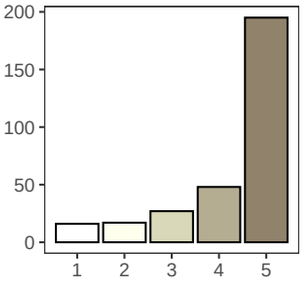
Sentence	Sentence text	Responses	Mean	SD	Survey
F1134	I've never been to Paris, let alone France.	303	4.28	1.16	7
F1136	Vegetarians don't eat red meat, let alone chicken.	303	4.03	1.15	7
F1139	She's never been married, let alone had a serious boyfriend.	303	4.33	1.10	7

F1134: "I've never been to Paris, let alone France."

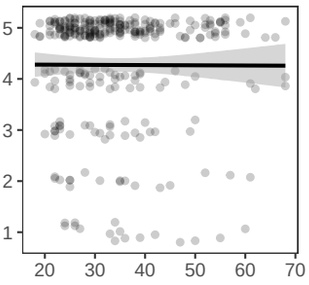


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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

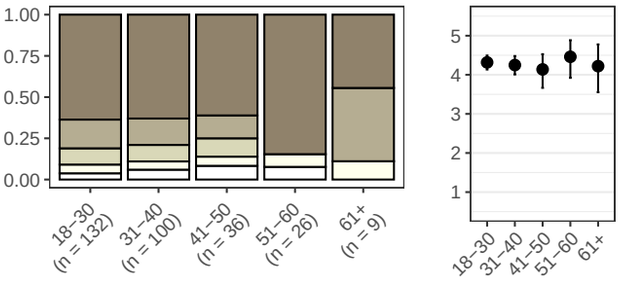
Judgments



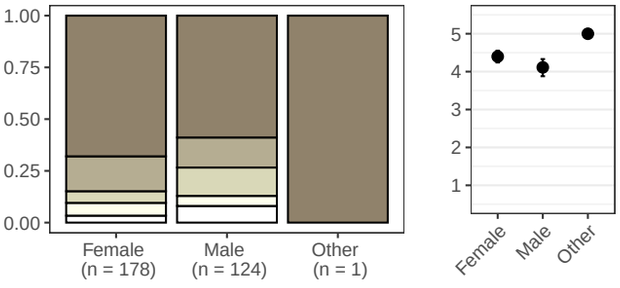
Age



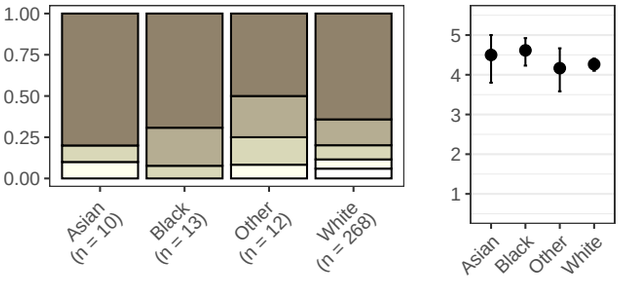
Age groups



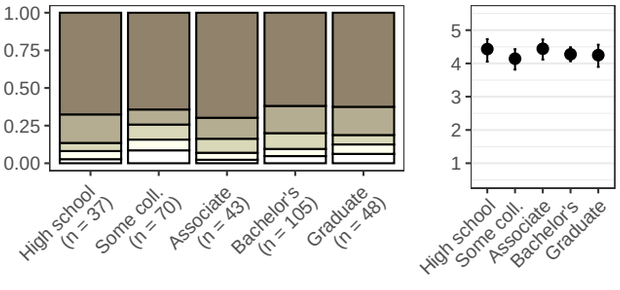
Gender



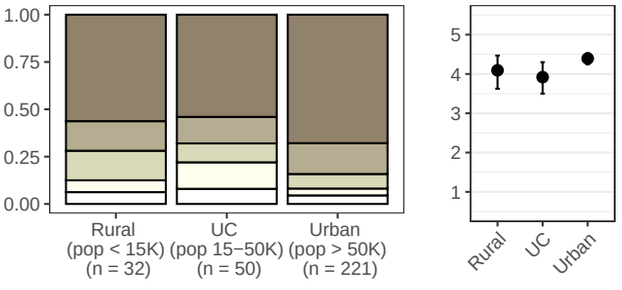
Race



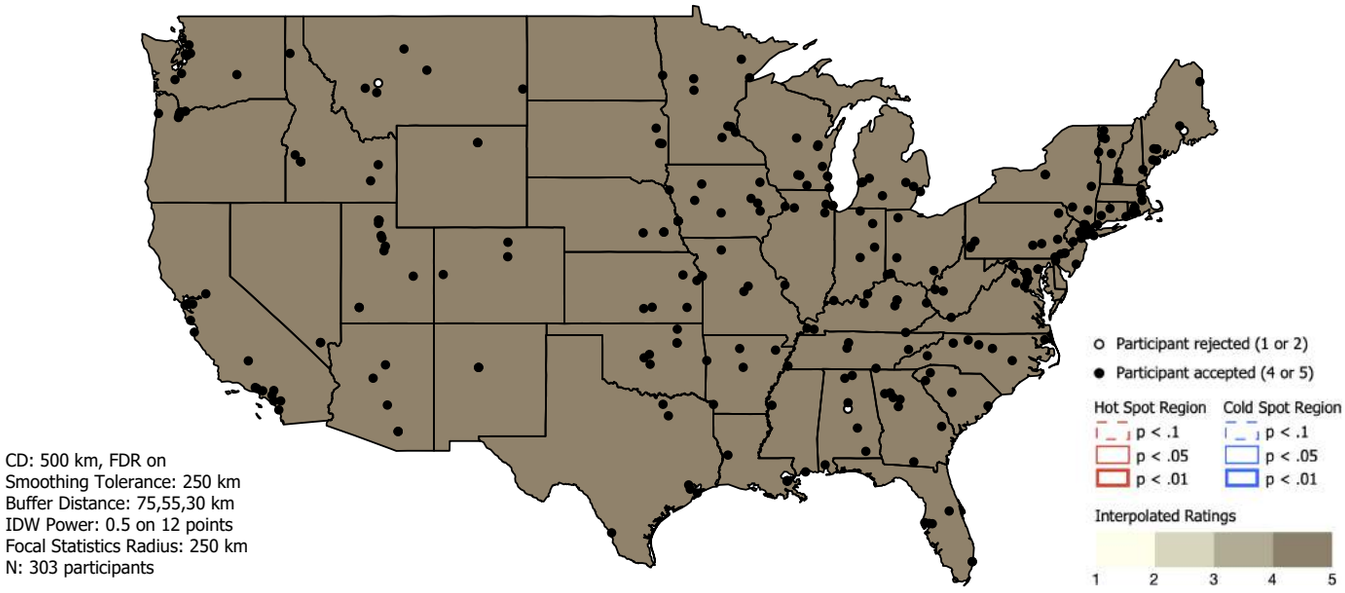
Education



Urban/Rural

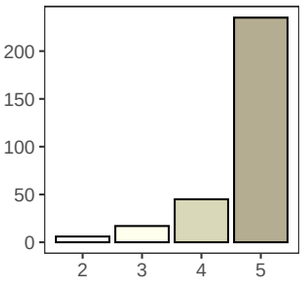


F1135: "He may have won the race but he tripped going over the last hurdle."

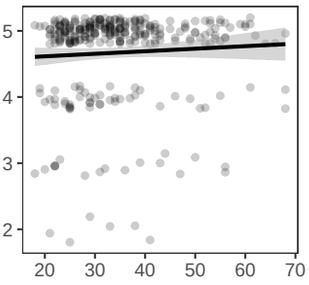


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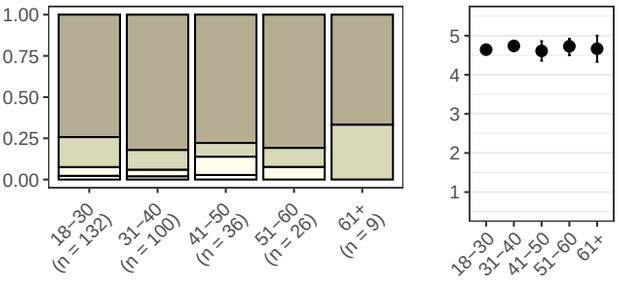
Judgments



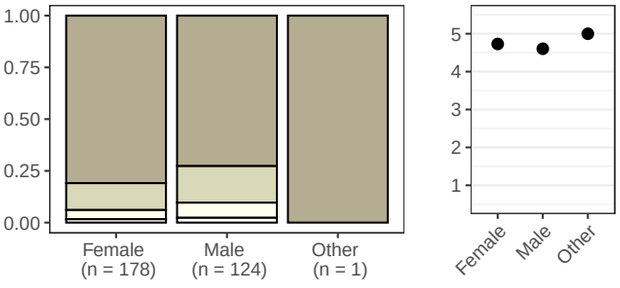
Age



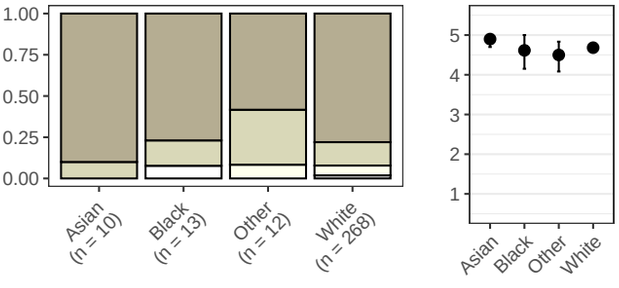
Age groups



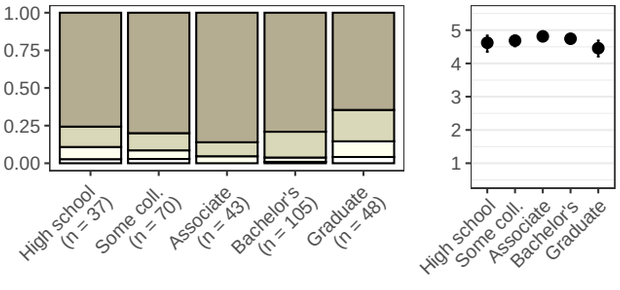
Gender



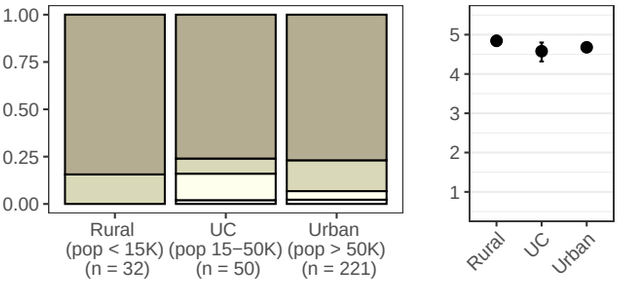
Race



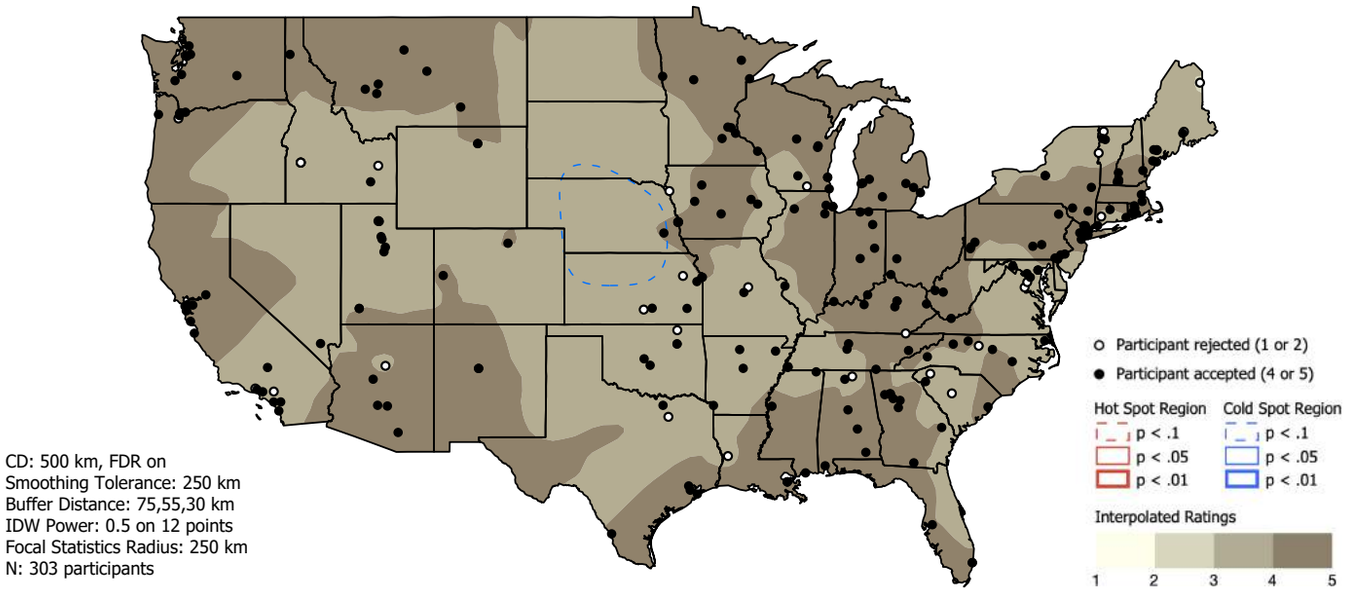
Education

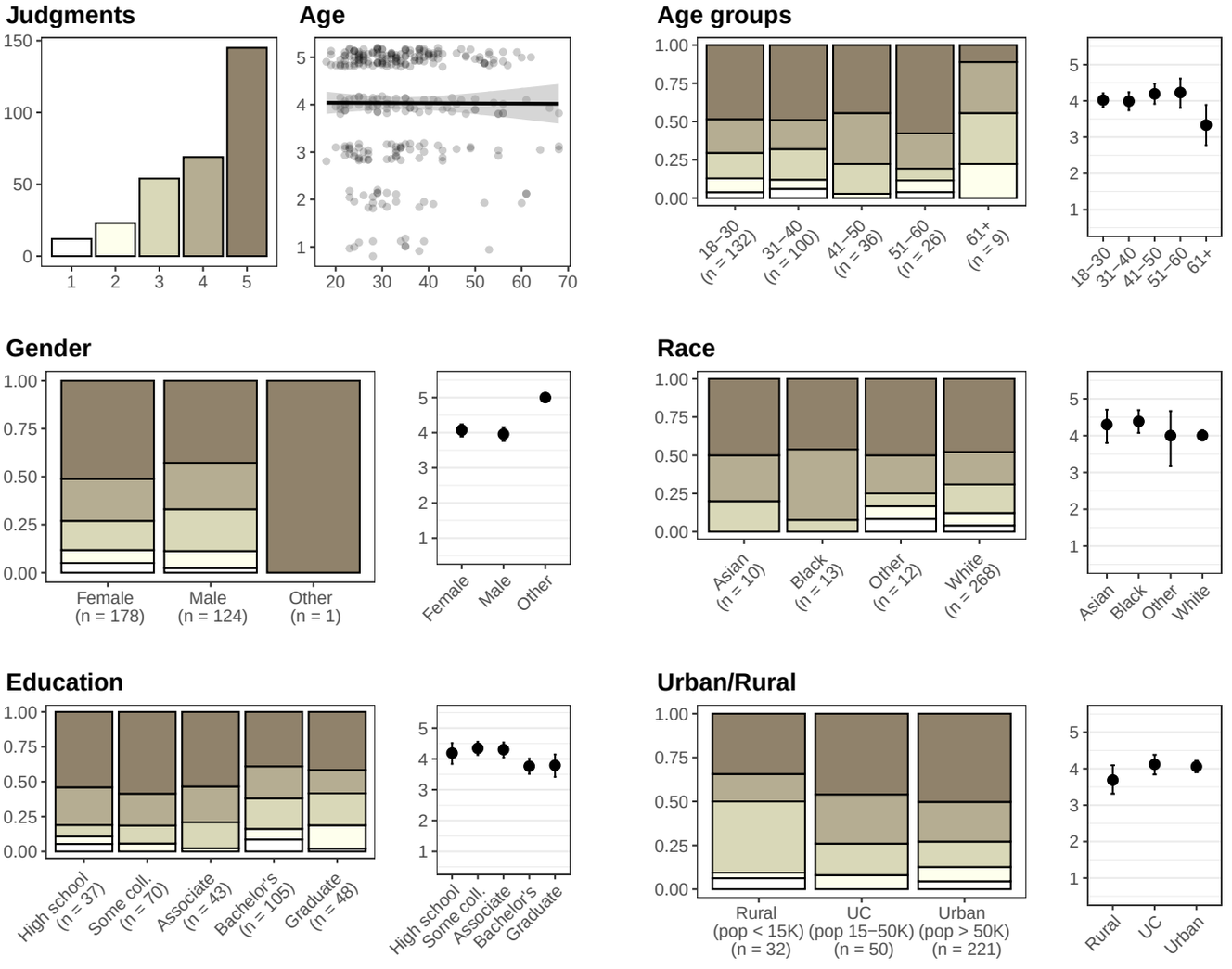


Urban/Rural



F1136: "Vegetarians don't eat red meat, let alone chicken."





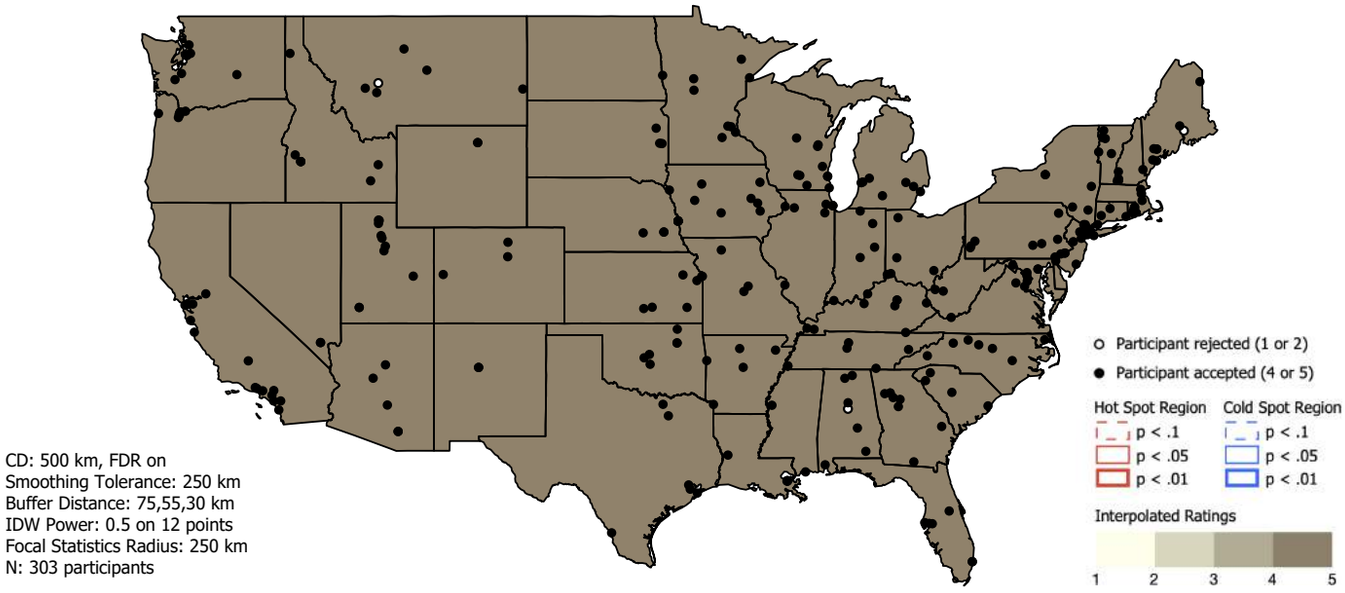
11.3.3 *May have*

Among the *may bave* sentences, there was very little variation in the acceptability of 1138, 1140 and 1141; very few participants rejected these (although there was some variation in how "acceptable" or "marginal" the sentences were judged to be, in the 3–5 range). The sole cold spots in 1140 and 1141 are almost certainly false positives.

(43)

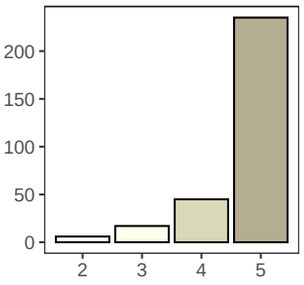
Sentence	Sentence text	Responses	Mean	SD	Survey
F1135	He may have won the race but he tripped going over the last hurdle.	303	4.68	0.67	7
F1138	Better security may have prevented yesterday's terrorist attack.	303	4.84	0.48	7
F1140	Without your help, I may not have succeeded.	303	4.81	0.54	7
F1141	If she hadn't fixed his printer, he may not have gotten the paper in on time. Fortunately, he did.	303	4.48	0.88	7

F1135: "He may have won the race but he tripped going over the last hurdle."

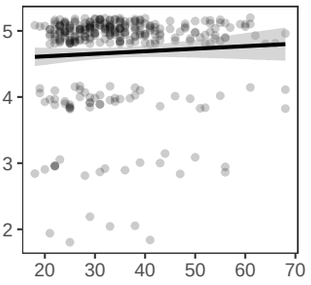


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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

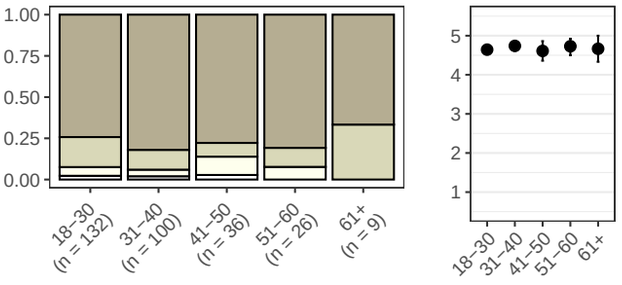
Judgments



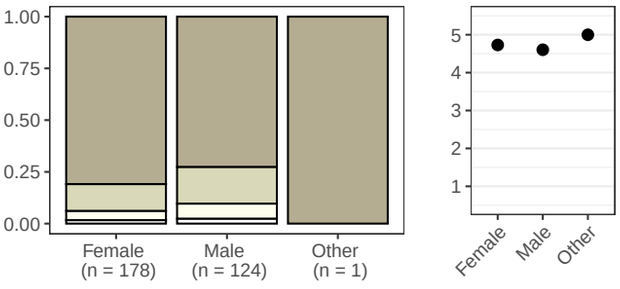
Age



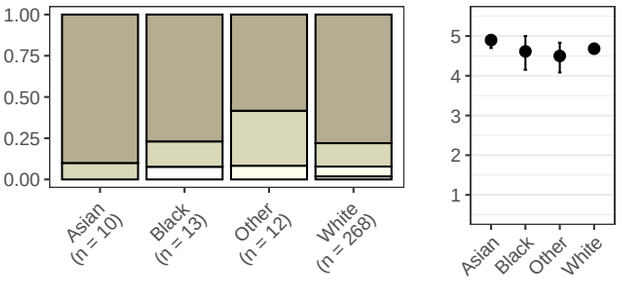
Age groups



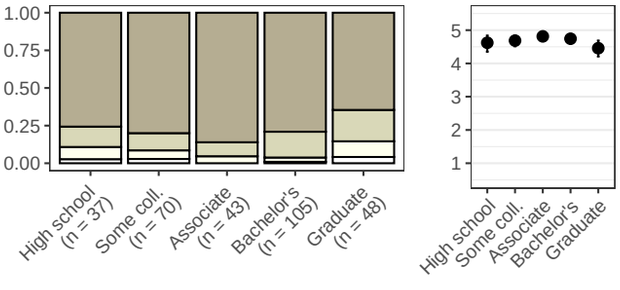
Gender



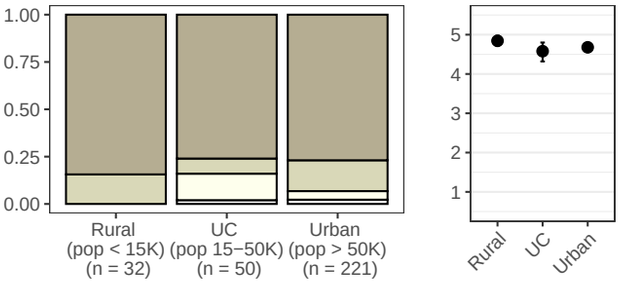
Race



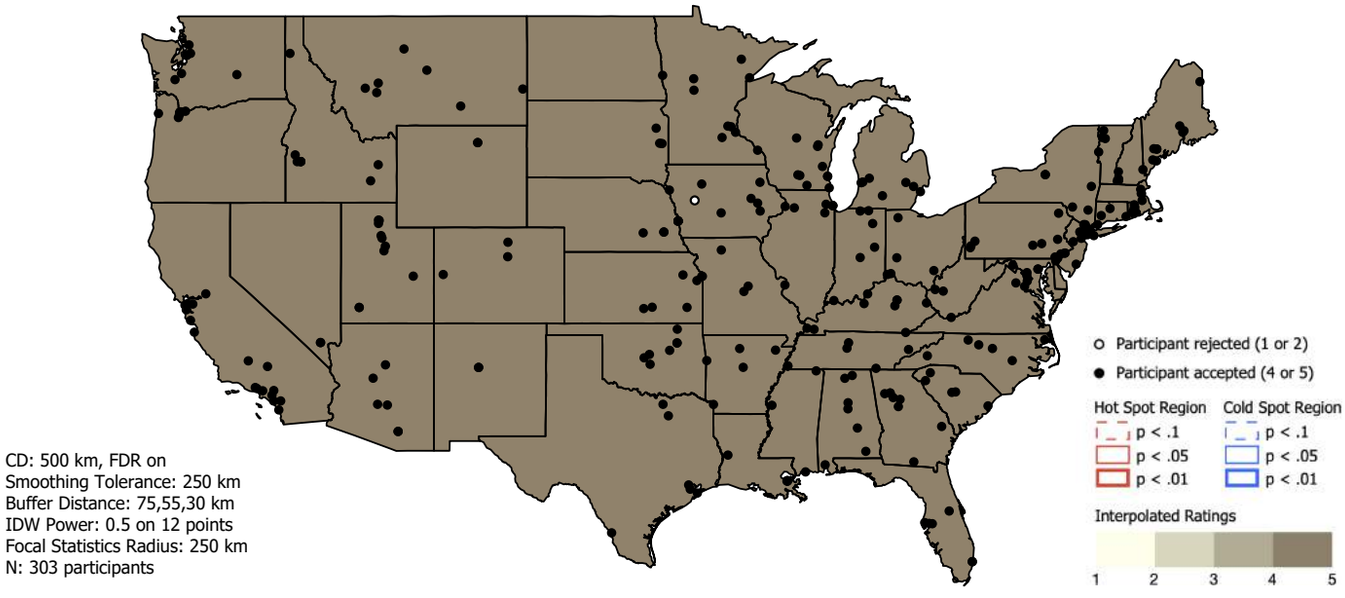
Education



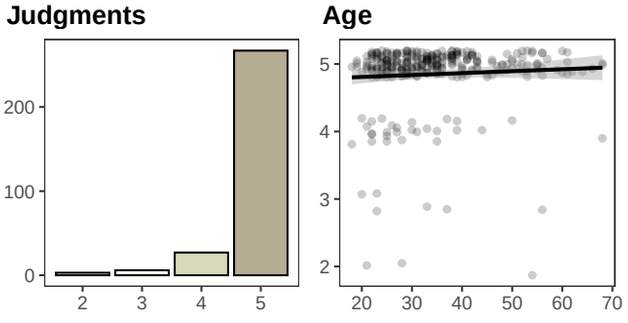
Urban/Rural

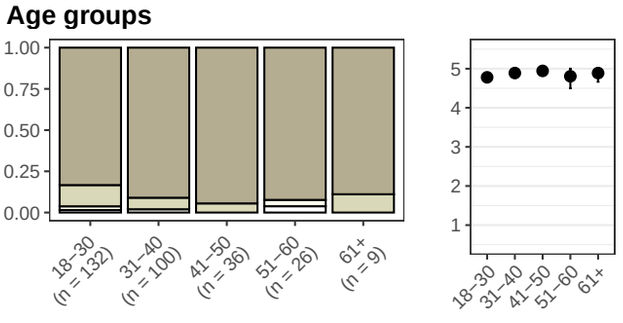


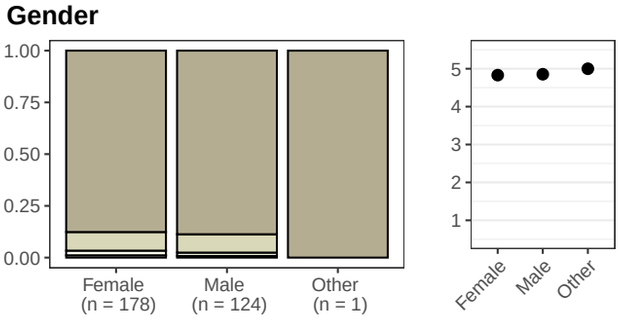
F1138: "Better security may have prevented yesterday's terrorist attack."

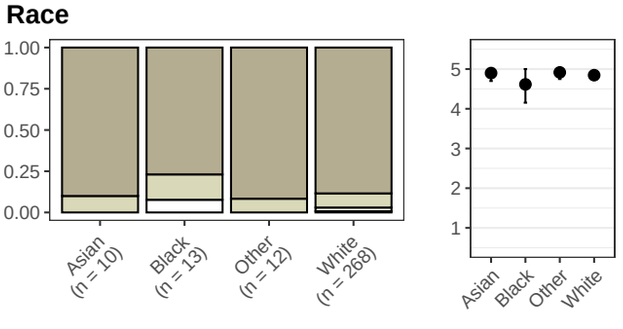


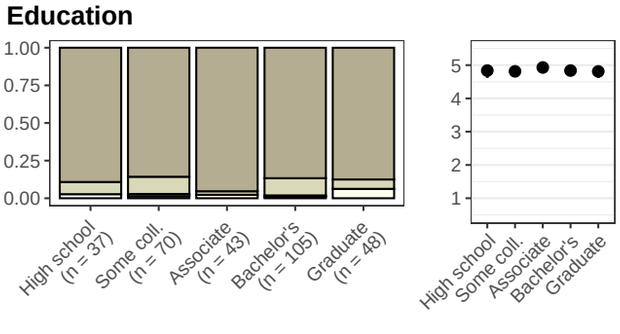
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IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

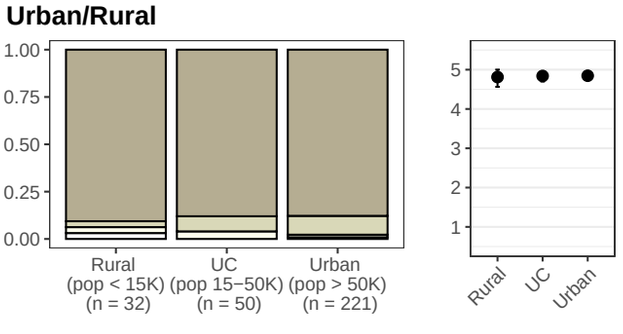




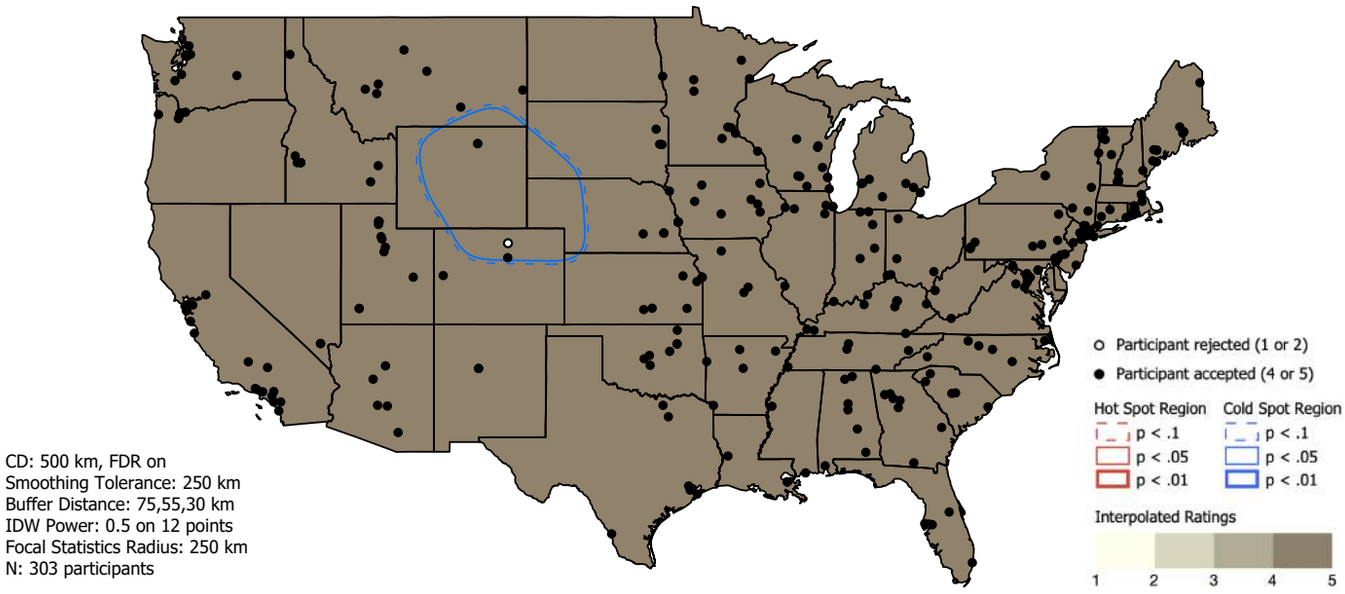






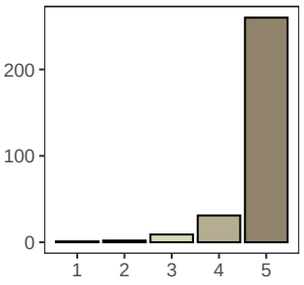


F1140: "Without your help, I may not have succeeded."

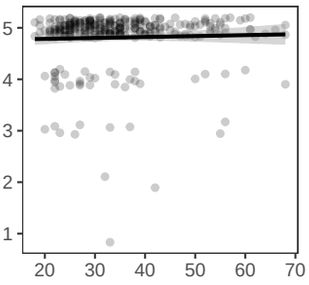


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Focal Statistics Radius: 250 km
N: 303 participants

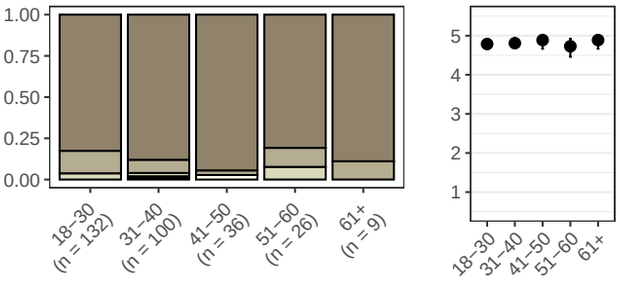
Judgments



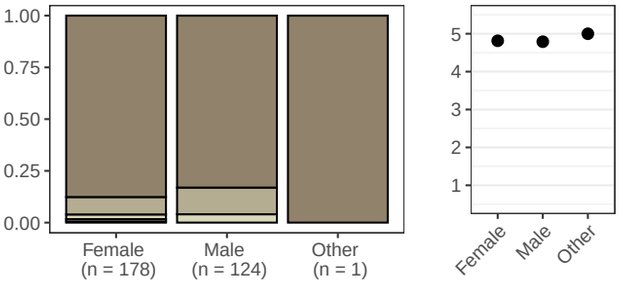
Age



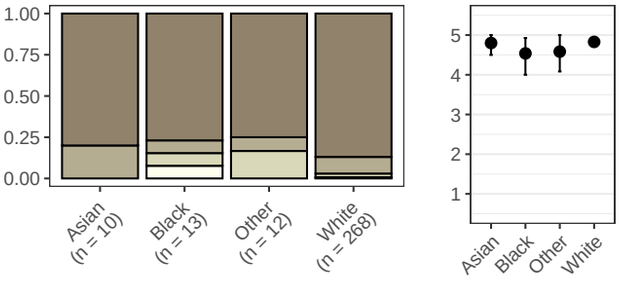
Age groups



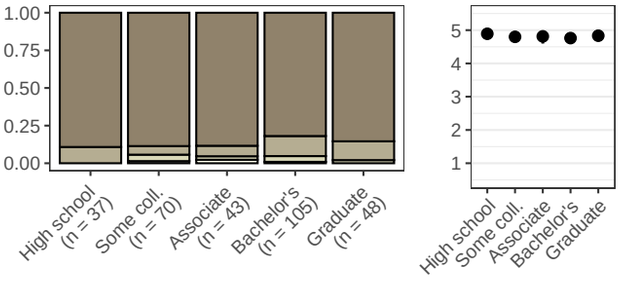
Gender



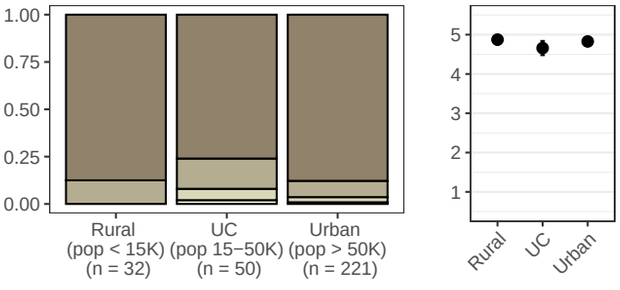
Race



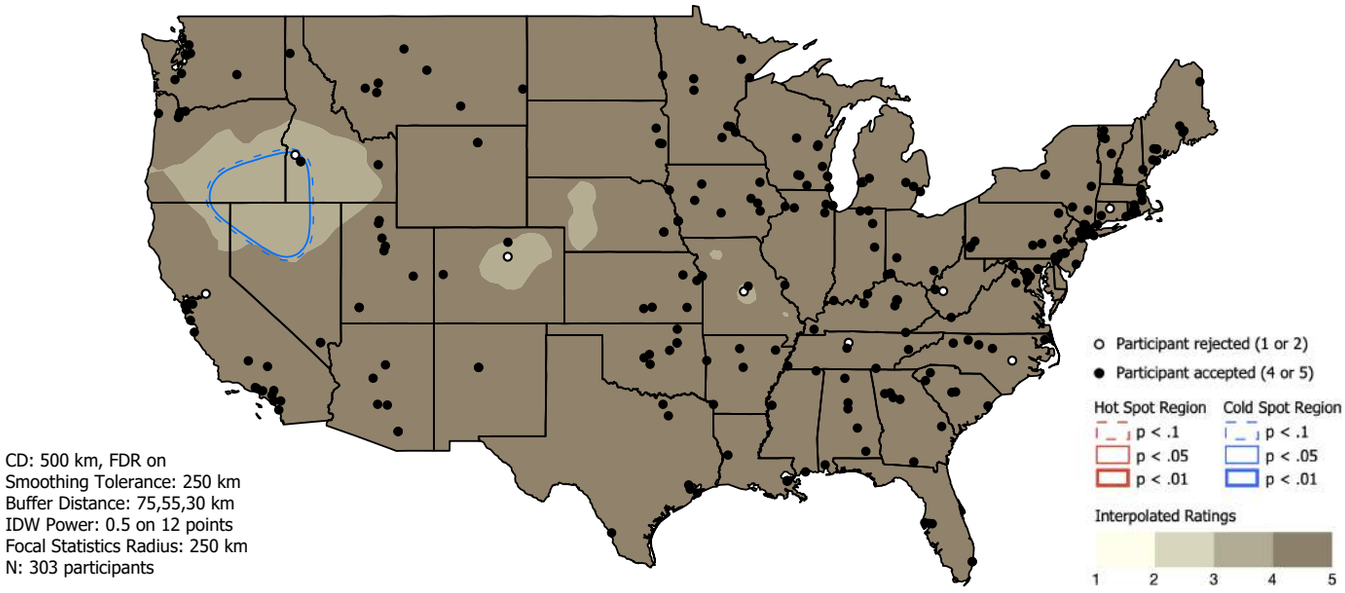
Education



Urban/Rural

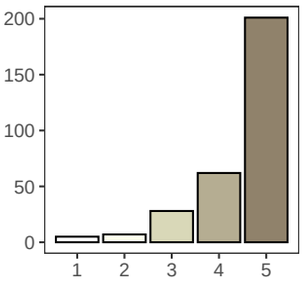


F1141: "If she hadn't fixed his printer, he may not have gotten the paper in on time. Fortunately, he did."

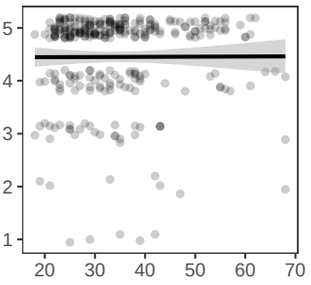


CD: 500 km, FDR on
Smoothing Tolerance: 250 km
Buffer Distance: 75,55,30 km
IDW Power: 0.5 on 12 points
Focal Statistics Radius: 250 km
N: 303 participants

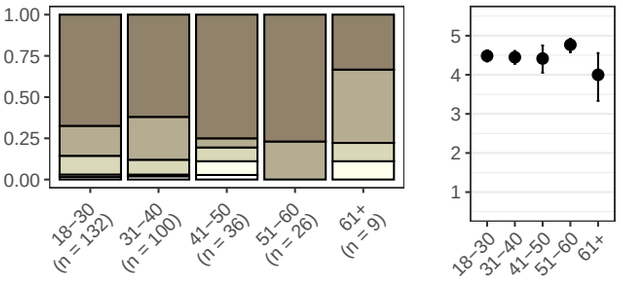
Judgments



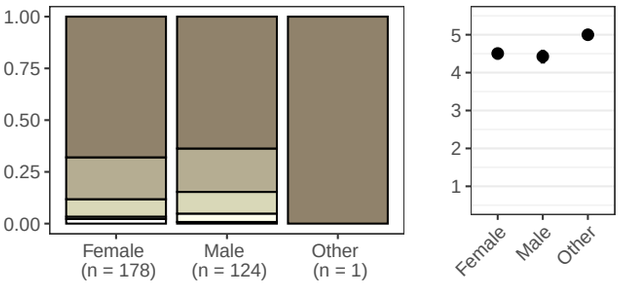
Age



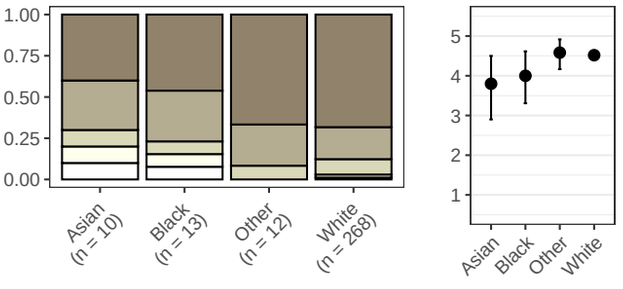
Age groups



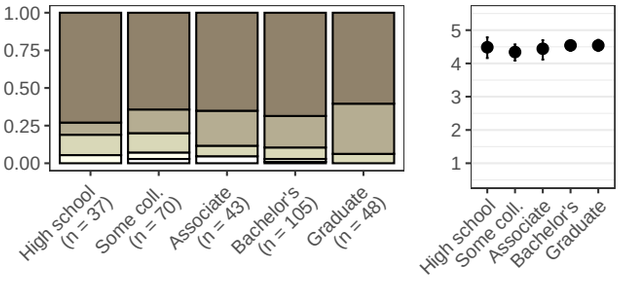
Gender



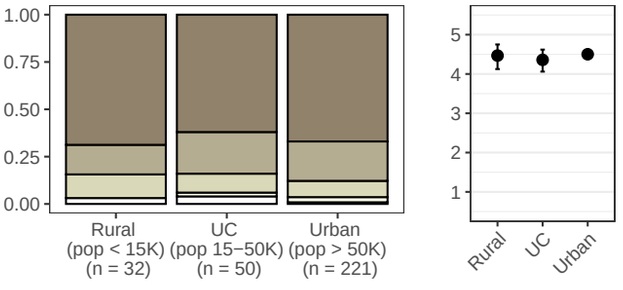
Race



Education



Urban/Rural



12 Acknowledgments

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