Appendix A

Coding Instructions

Here, I document an abridged version of the coding instructions for annotating the validation data. Comments were coded along the binary variables *people-centrism* and *anti-elitism*, covering key messages of populist communication. The coding instructions for populism align with the codebook developed by Blassnig et al. (2016; 2019) and have been used in part in my previous studies (Thiele 2022a; Thiele and Turnšek 2022).

At the post level, coders assigned binary values for the presence of references to the *government*, *experts*, *COVID-19*, *COVID-19 policies*, and *easing of COVID-19 policies*. The last two variables were used to construct the variable references to *COVID-19 policy restrictions*.

Holistic grading was employed for coding comments and posts, i.e. the complete post or comment was considered in assigning codes. Coders were presented with general coding instructions, adopted from Blassnig et al. (2016, 1): "Only code explicit statements. Implications, hints, and context knowledge must not be coded. If in doubt, don't code it. If you have to ask yourself whether a statement is explicit enough to code it, it is not. [...] Hypothetical statements are coded. Statements that are future-oriented or in subjunctive mood are coded as normal statements. Hypothetical does not mean implicit." The general instructions additionally clarified that the categories are not mutually exclusive, addressed the handling of missing values, and explained the filter variables.

Post-Level Variables

Table A1: Coding Instructions for Posts

Construct	Instructions	Codes
Topic: COVID-19 mentioned	*Question:* Does the post mention the topic of COVID-19? *Instructions:* Please code "1" if the coded text refers in some form to the COVID-19 virus, or any aspect of the COVID-19 pandemic, including any governmental, societal, or scientific response to, or consequence of, the COVID-19 crisis.	0: not present 1: present

Table A1: Coding Instructions for Posts

Construct	Instructions	Codes
Subtopic: COVID-19 policies	*FILTER: If "covid" = "0", this category is "0".* *If "covid" = "1", please code:* *Question:* Does the post mention any authorities' measure responding to the COVID-19 crisis? *Definitions:* "Authorities" here mean all levels of government, whether national, regional, local, or supra-national, all public service agencies, all public health advisory boards or councils (e.g., the RKI in Germany, the RIVM in Netherlands, the Folkhälsomyndigheten in Sweden etc.), and local institutions such as schools or hospitals. "COVID-19 measures" include, but are not limited to, measures directed at public health (e.g., social distancing, masks, quarantine, hygienic rules), including testing for COVID-19 or vaccinations; restrictive measures (e.g., closing of schools, restaurants, lockdowns, measures limiting social contacts); contact tracing; travel restrictions and specific border policies; policies that ease COVID-19 restrictions; policies that react on economic or social challenges related to the COVID-19 crisis. References to the general COVID-crisis management of authorities are also considerd as 'COVID-19 policies' here. *Instructions:* Please code "1" if the coded text refers in some form to any measure of authorities that is a response to the COVID-19 crisis – whether directed at public health or other aspects of the crisis.	0: not present 1: present
Subtopic: Easing COVID-19 policies	*FILTER: If "covid policy" = "0", this category is "0".* *If "covid policy" = "1", please code:* *Question:* Does the post mention any easing of restrictive COVID-19 policies, or policies that offer economic support? *Instructions:* Please code "1" if the coded text refers in some form to easing restrictive measures (e.g., mentions of lifting lockdowns, lifting obligatory mask wearing, lifting travel bans, lifting restrictions to enter public events); or measures intended to cushion economic or social hardships induced by the COVID-19 crisis (e.g., emergency funds, helplines).	0: not present 1: present

Table A1: Coding Instructions for Posts

Construct	Instructions	Codes
Actors: Government	*Question:* Does the post mention the current national government of the country in question or the European Commission? *Definitions:* The "government" here exclusively refers to the incumbent (at the time of the post) head of government (e.g., Prime Minister, Chancellor, in France: including the President), the ministers of his or her cabinet, the government as a whole, and the European Commission. Mentioning the head of state (only exception: "the President" in France); parliamentarians who are not part of the cabinet; public advisory boards; regional or local governing bodies; foreign governments; or former governments do not count as 'the government' here. *Instructions:* Please code "1" if the coded text refers to the head of the current national government of the respective country at the time of the post – referred to by either his or her name or office; any minister of the (federal) government of the respective country at that time – referred to by either his or her name or office; the government as a whole; the head or any member of the European Commission at that time; the European Commission as a whole. *Note: A list of names, official titles and incumbents was provided to the coders.*	0: not present 1: present
Actors: Experts	*Question:* Does the post mention experts? *Definitions:* An "expert" here is understood as someone who has acquired profound knowledge in a specific field through academic education or research. We consider experts from any field of knowledge, whether public health related or not. Persons who have acquired profound experience through practice but without academic education are not considered experts here (e.g., general healthcare professionals). References to the output or field of study of those experts, as well as references to public research institutions is considered as mentioning experts. Explicit references to "experts" do count. References to private research institutions (e.g., BioNTech, Pfizer) is not sufficient to be counted as mentioning "experts" here. If the post refers explicitly to the researchers active in, or research conducted at, those institutions this counts as mentioning experts.	0: not present 1: present

Table A1: Coding Instructions for Posts

Construct	Instructions	Codes
	Instructions: Please code "1" if the coded text refers to anyone explicitly as "expert", or "specialist"; to any researchers – either in general terms (e.g., "researcher", "scientist"), by indicating their area of expertise (e.g., "virologist", "psychologist", "virology", "psychology"), or by indicating their academic profession (e.g., "professor XY"); research in general (e.g., "research", "a study", "science"); any public, academic research institution (e.g., "university XY", "institute XY"); other public health experts with an academic backgroud (e.g. physicians or doctors). Please note that mentioning general healthcare professionals of hospitals does not count as reference to experts here.	

Comment-Level Variables

Table A2: Coding Instructions for Comments

Construct	Instructions	Codes
People-centrism	*Question:* Does the comment invoke the people or demand sovereignty for the people? (Aslanidis, 2018, 1255) *Definitions:* People-centrism is one core dimension of populist communication. It is defined here as an ideological discourse that invokes 'the people' (Aslanidis 2018, 1255). It values 'the people' as something positive or worth protecting, constructs it as an in-group, i.e., as a group to which the author of the text belongs to, and/or suggests that 'the people' are the "rightful political sovereign within a given polity" (Aslanidis 2018, 1255). 'The people' are defined as the "overwhelming majority" (Aslanidis 2018, 1255) of the "population of a country" or polity that is assumed to "share a common origin or culture" (Blassnig et al. 2016, 14). "The people may be regarded as nation, ethnos, demos, class, or strata" (Blassnig et al. 2016, 14). It is essential that the commenter regards himself or herself as part of the people and values the people. The people may be addressed directly ("the people", "the Austrian population"), "as a metaphor ('man on the street', 'the common man'), or as a subgroup that is regarded as representing" (Blassnig et al. 2016, 14) the overwhelming majority ('the hardworking people', 'voters', 'we taxpayers').	0: not present 1: present

Table A2: Coding Instructions for Comments

Construct	Instructions	Codes
	Instructions: Please code "1", if the coded text refers to 'the people' in one of the ways described above and is characterized by at least one of the following aspects: • The people are attributed with virtues and positive traits. For example, the people may be described as good, honest, hard-working, modest, moral, credible, intelligent, competent, consistent, considerate, benevolent, or similar (Blassnig et al., 2016 , 17). (e.g., "every normal citizen knows about this madness") • The people are seen as responsible for positive developments, events, or situations (Blassnig et al. 2016, 17). (e.g., "I am glad to be a tiny part of this. A lot of work and sweat has built this country and made it what it is now.") • The people are described as a homogeneous group: The "people is seen as sharing a common understanding of the world, common feelings [...], common opinions [...], or a common will [...]. (e.g., 'The voters want immigration controlled, they declared that loud and clear.')" (Blassnig et al. 2016, 18). • The people are constructed as a collective of victims, that suffers from elite actions, or external threats, or needs to be protected (Hameleers, 2019). (e.g.: "Who is protecting us????") • The comment demands to listen to the people's will, or addresses the people to wake up, or to stand up for their will (Blassnig et al. 2016, 20) (e.g., "let's unite and take the streets! together we can make a difference!") • The comment criticizes institutions or elites for not reflecting the people's will, for deceiving or silencing the vast majority. (e.g.: "The people will not be deceived any longer by this clown.")	

Table A2: Coding Instructions for Comments

Construct	Instructions	Codes
Anti-elitism	*Question:* Does the comment discredit or blame the elite or suggest that the elite is detached from the people? (Blassnig et al. 2016, 18–19) *Definitions:* Anti-elitism is the second core dimension of populist communication. It is defined as "references against a slim minority of unaccountable power holders [that allegedly engage] [...] in the misappropriation of popular sovereignty" (Aslanidis 2018, 1255). It constructs 'the elite' as the antagonist of 'the people', which illegitimately rules and deceives the latter (Mudde 2004, 543). 'The elite' is defined as minority groups of power holders within a society that are (assumed to be) powerful and influential because of its "political power, wealth, or privilege" (Blassnig et al. 2016, 14). Not the factual power is decisive, but the assumption of such power in the coded text. Elites "can be allocated to the areas of politics, administration, economy, law, media, science, and culture" (Blassnig et al. 2016, 14). "The elite may either be addressed in general terms [(e.g., 'those above', 'politicians', 'the rich', 'the media')] or specific members [or institutional representatives] of the elite may be addressed by name" (Blassnig et al. 2016, 14) or nickname (e.g., "Wall Street", "Brussels", "Soros"). *Instructions:* Please code "1", if the coded text refers to 'the elite' in some of the ways described above and is characterized by at least one of the following aspects: • Elites are discredited or denounced: "Negative personality traits, mistakes, and unlawful or immoral behavior of the elites are stressed. The elites [...] are portrayed as corrupt, evil, incapable, malevolent, [mendacious], criminal, lazy, stupid, undemocratic [or in any other similar negative way]. The elites or its representatives are denied of morality, charisma, credibility, intelligence, competence, consistency etc." (Blassnig et al. 2016, 18) (e.g., "It is minister Mikl Leitner who, apart from incompetence, only attracts attention with embarrassing statements."; "Down with this sell-out government!") *Caution:* If a text criticizes elites in a balanced way, without suggesting a fundamental or moral degeneracy of the elite or the established system it is not considered anti-elitist.	0: not present 1: present

Table A2: Coding Instructions for Comments

Construct	Instructions	Codes
	• Elites are blamed for fundamentally negative developments or situations: elites are held responsible for undesirable situations that are depicted as serious harm for the society (Blassnig et al. 2016, 18). (e.g., "Our politicians have managed to make Austria an unsafe country. The politicians who are responsible should be locked up")	
	• Elites are depicted as detached from the people, unaccountable to the people's will, or manipulating the people: The elite is described as "not being close to the people, not knowing the people and their needs, not speaking for the people, [...] not listening to the people," (Blassnig et al. 2016, 19) not representing the people, betraying or deceiving the people, lying to the people, manipulating the public opinion, or as being distanced from the people in any other way (Blassnig et al. 2016, 19–20). (e.g., "when will our so-called representatives of the people finally open their eyes"; "The politicians do not listen to us")	
	• Elites are denied sovereignty. "The speaker argues in favor of granting less power to the" or some elites (Blassnig et al. 2016, 21). (e.g., "I hope that the EU breaks apart so that Austria can finally close the borders!)	

Appendix B

Text Cleaning and Preprocessing

Text was cleaned and preprocessed for the tasks: (a) translation, (b) training the *fastText* model, (c) measurement development, (d) application of the post-level dictionaries, and (e) application of the DDR measurements. For most tasks, text was lowercased, punctuation, hyperlinks, and stop-words were removed, numbers, emojis and emoticons were replaced by words. Stop-words were defined following the German *nltk* list, with the exception of the following words that were considered to function as in- and out-group marker in populist discourse or convey other important meaning: *alle*, diese*, die, das, einige*, euer*, eur*, uns*, keine*, mein*, nicht*, solche*, sie, sich, nur, wieder, selbst, manche*, seine*, wir*. Emojis were manually assigned by the author to four broad emotion categories joy, anger, fear, and other. Table B1 documents all replaced emojis and other special characters.

Text cleaning was applied as consistently as possible in all steps of the analysis, with some exceptions. These exceptions are: (a) For translation, text was not lowercased, punctuation only simplified, emojis replaced after translation, and text truncated to 540 characters; (b) For training the *fastText* model, no stop-words were removed, text was tokenized into sentences and shuffled, duplicates and comments with less than 5 words were removed; (c) For applying the case-sensitive dictionary for government representatives on post level, text was not lowercased to capture names correctly.

Table B1: Replaced emojis and special characters.

Unicode	Concept	Replacement
\\U0000270A	anger	wut
\\U0001f44A	anger	wut
\\U0001f44E	anger	wut
\\U0001f47f	anger	wut
\\U0001f4A2	anger	wut
\\U0001f4A3	anger	wut
\\U0001f4A9	anger	wut
\\U0001f595	anger	wut
\\U0001f608	anger	wut
\\U0001f60F	anger	wut
\\U0001f611	anger	wut
\\U0001f612	anger	wut
\\U0001f613	anger	wut
\\U0001f614	anger	wut
\\U0001f616	anger	wut
\\U0001f61B	anger	wut
\\U0001f61C	anger	wut
\\U0001f61D	anger	wut

Table B1: Replaced emojis and special characters.

Unicode	Concept	Replacement
\\U0001f620	anger	wut
\\U0001f621	anger	wut
\\U0001f623	anger	wut
\\U0001f624	anger	wut
\\U0001f63E	anger	wut
\\U0001f644	anger	wut
\\U0001f645	anger	wut
\\U0001f910	anger	wut
\\U0001f914	anger	wut
\\U0001f91B	anger	wut
\\U0001f91C	anger	wut
\\U0001f922	anger	wut
\\U0001f925	anger	wut
\\U0001f926	anger	wut
\\U0001f928	anger	wut
\\U0001f92C	anger	wut
\\U0001f92E	anger	wut
\\U0001f92f	anger	wut
\\U0001f94A	anger	wut
\\U0001f480	fear	angst
\\U0001f61E	fear	angst
\\U0001f61F	fear	angst
\\U0001f622	fear	angst
\\U0001f625	fear	angst
\\U0001f628	fear	angst
\\U0001f629	fear	angst
\\U0001f62A	fear	angst
\\U0001f62B	fear	angst
\\U0001f62D	fear	angst
\\U0001f62e	fear	angst
\\U0001f62f	fear	angst
\\U0001f630	fear	angst
\\U0001f631	fear	angst
\\U0001f632	fear	angst
\\U0001f633	fear	angst
\\U0001f636	fear	angst
\\U0001f637	fear	angst
\\U0001f63F	fear	angst
\\U0001f640	fear	angst
\\U0001f641	fear	angst
\\U0001f912	fear	angst
\\U0001f915	fear	angst
\\U0001f927	fear	angst
\\U0001f97a	fear	angst
\\u2639	fear	angst
:-)	joy	freude
:)	joy	freude
\\U00002705	joy	freude
\\U0001f31f	joy	freude
\\U0001f339	joy	freude
\\U0001f33a	joy	freude
\\U0001f340	joy	freude

Table B1: Replaced emojis and special characters.

Unicode	Concept	Replacement
\\U0001f37e	joy	freude
\\U0001f389	joy	freude
\\U0001f44C	joy	freude
\\U0001f44D	joy	freude
\\U0001f44f	joy	freude
\\U0001f44f\\U0001f3fb	joy	freude
\\U0001f48B	joy	freude
\\U0001f48C	joy	freude
\\U0001f490	joy	freude
\\U0001f493	joy	freude
\\U0001f494	joy	freude
\\U0001f495	joy	freude
\\U0001f496	joy	freude
\\U0001f497	joy	freude
\\U0001f498	joy	freude
\\U0001f499	joy	freude
\\U0001f49A	joy	freude
\\U0001f49B	joy	freude
\\U0001f49C	joy	freude
\\U0001f49D	joy	freude
\\U0001f49E	joy	freude
\\U0001f49F	joy	freude
\\U0001f49F	joy	freude
\\U0001f4AA	joy	freude
\\U0001f4AF	joy	freude
\\U0001f5a4	joy	freude
\\U0001f600	joy	freude
\\U0001f601	joy	freude
\\U0001f602	joy	freude
\\U0001f603	joy	freude
\\U0001f604	joy	freude
\\U0001f605	joy	freude
\\U0001f606	joy	freude
\\U0001f607	joy	freude
\\U0001f609	joy	freude
\\U0001f60A	joy	freude
\\U0001f60B	joy	freude
\\U0001f60C	joy	freude
\\U0001f60D	joy	freude
\\U0001f60E	joy	freude
\\U0001f617	joy	freude
\\U0001f618	joy	freude
\\U0001f61A	joy	freude
\\U0001f638	joy	freude
\\U0001f639	joy	freude
\\U0001f63A	joy	freude
\\U0001f63B	joy	freude
\\U0001f63C	joy	freude
\\U0001f63D	joy	freude
\\U0001f642	joy	freude
\\U0001f643	joy	freude
\\U0001f64c	joy	freude

Table B1: Replaced emojis and special characters.

Unicode	Concept	Replacement
\\U0001f64F	joy	freude
\\U0001f913	joy	freude
\\U0001f917	joy	freude
\\U0001f918	joy	freude
\\U0001f919	joy	freude
\\U0001f91D	joy	freude
\\U0001f921	joy	freude
\\U0001f929	joy	freude
\\U0001f92A	joy	freude
\\U0001f92D	joy	freude
\\U0001f942	joy	freude
\\U0001f947	joy	freude
\\U0001f948	joy	freude
\\U0001f949	joy	freude
\\U0001f970	joy	freude
\\U0001f973	joy	freude
\u263a	joy	freude
\u2665	joy	freude
\u2764	joy	freude
\ufe0f\u2764	joy	freude
$	money	geld
€	money	geld
\\U0001f30e	other emotions	emotion
\\U0001f30f	other emotions	emotion
\\U0001f411	other emotions	emotion
\\U0001f437	other emotions	emotion
\\U0001f440	other emotions	emotion
\\U0001f44b	other emotions	emotion
\\U0001f479	other emotions	emotion
\\U0001f489	other emotions	emotion
\\U0001f62c	other emotions	emotion
\\U0001f634	other emotions	emotion
\\U0001f648	other emotions	emotion
\\U0001f649	other emotions	emotion
\\U0001f64a	other emotions	emotion
\\U0001f911	other emotions	emotion
\\U0001f971	other emotions	emotion
\\U0001f974	other emotions	emotion
\\U0001f975	other emotions	emotion
\\U0001f9d0	other emotions	emotion
\u2708	other emotions	emotion
!	punctuation	ruft
!!	punctuation	ruft
!?	punctuation	frage
.	punctuation	punkt
?	punctuation	frage
:(	sad	traurig
1	number	eins
2	number	zwei
3	number	drei
4	number	vier
5	number	fünf

Table B1: Replaced emojis and special characters.

Unicode	Concept	Replacement
6	number	sechs
7	number	sieben
8	number	acht
9	number	neun
10	number	zehn
100 - 999	number	hunderte
1000 - 9999	number	tausende

Appendix C

Developing the DDR Measurement

This study employed the "Distributed Dictionary Representation" (DDR) method (Garten et al. 2018) and utilized its implementation in the R-package *dictvectoR* (Thiele 2022b) to quantify the level of populism in each comment. Figure C1 presents a schematic overview outlining the pipeline utilized for optimizing and applying the DDR measurement. Beyond the method description provided in the main article, this section will detail (1) the training of the *fastText* model, (2) the procedural steps involved in the optimization process, and (3) further evaluation regarding the importance of individual terms in the dictionary.

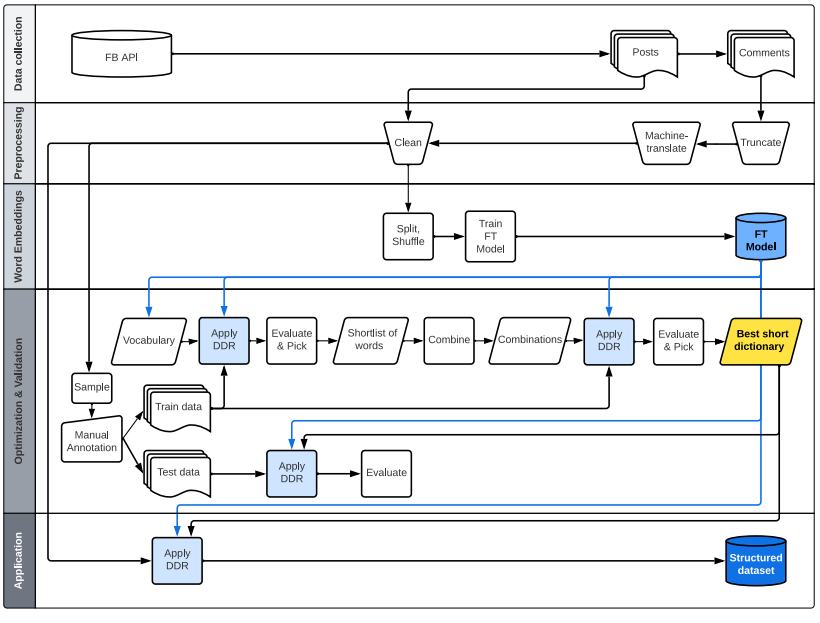

Figure C1: Pipeline for Optimizing and Applying the DDR Measurement

FastText Model

I trained a custom *fastText* word embedding model (Bojanowski et al. 2017) using the comprehensive corpus of German comments and German-language posts, including translations. Word embeddings represent the semantic relations between words in a multidimensional vector space (Mikolov et al.

2013). These vector representations are produced by machine learning algorithms trained on extensive text corpora. These rely on the assumption that words of similar meaning repeatedly occur in similar contexts (Mikolov et al. 2013). *FastText* models, distinguished from other embeddings, excel in handling social media texts as they are robust against misspellings, can generate vectors for out-of-vocabulary words, and perform well on morphologically rich languages. These capabilities are achieved by segmenting words into n-grams of characters, and inferring embeddings for these sub-word snippets as well (Bojanowski et al. 2017).

For the task in this research, I preferred a custom-trained word embedding model. Pre-trained, off-the-shelf models are typically sourced from curated texts like Wikipedia, which lack authentic expressions of populism. In addition, pre-trained models miss the meaning of terms with current relevance. This seems particularly relevant in the context of the COVID-19 crisis, which resulted in a whole vocabulary of new words.

The documents used for training underwent cleaning processes detailed in Appendix B, were segmented into sentences using the *quanteda* (Benoit et al. 2018) tokenizer, and then randomized. After filtering duplicates and sentences containing fewer than 5 words, the model training dataset encompassed 3,564,352 lines of text.

The model was trained on a local machine (Intel(R) i7-8565U CPU @ 1.80GHz, 4 cores, 8 threads, 16 GB RAM, no GPU) utilizing the *fastrtext* R-package (Benesty 2019). I chose the skipgram method to train a model 200 dimensions, with the following hyperparameters: 20 epochs, learning rate .1, bucket size 2,000,000, context window size 7, maximum n-gram length 6, minimum n-gram length 3, and set a minimum word count threshold of 10 for inclusion in the vocabulary. The training completed within less than 2 hours, yielding a vocabulary of 89,309 terms.

To evaluate the model's quality via face validity, I reviewed results from several nearest neighbor queries using political terms. For the formal validation, I focused on output validity, as reported in the main article. The model, along with the replication materials, is included in the replication repository: https://osf.io/d4qng/.

Optimizing the DDR Measurement

The main article details the DDR method, validation data, and evaluation strategy. This section focuses on outlining the steps taken to identify an op-

timal DDR dictionary specifically geared toward capturing user-generated expressions of populism. The objectives were threefold: First, the dictionary should be *inductively* derived, reflecting genuine user-generated expressions of populism. At the same time, second, the dictionary should be *theory-driven*, reflecting core dimensions of populism. Third, the resulting measurement should be *comparable*, maximizing F1 scores across all countries. The R-code to replicate these steps is presented in the vignette 'from text to measurement' within my R-package *dictvectoR* (Thiele 2022b). Due to copyright restrictions, the original Facebook text data cannot be shared. The data provided in the replication repository includes the scores from applying the DDR measurement and shareable data.

Commencing with the 89,309 terms in the *fastText* model's vocabulary, I excluded the least common 10% of words and stop-words. Each word's cosine similarity to the average representation of two corpora was computed: Firstly, to the average representation of all comments tagged as populist in the training corpus and secondly, to the representation of all non-populist comments in the training dataset. Additionally, I computed the score difference, facilitated by `dictvectoR::find_distinctive()`. This initial process provided rough indicators for words potentially enhancing the recall and precision of the DDR score. I used the product of the populism similarity and distinctiveness scores to narrow down the list of words to 3,000 words. Multiword expressions frequently used in a random 50% subset of the corpus were added using `dictvectoR::add_multiwords()`. Multiword expressions are important in populist communication, as they are used to construct in- and out-groups (e.g., 'wir steuerzahler') and distinguish neutral from populist meanings of words. Next, F1 scores for each individual term were obtained, by treating each term as one-term-dictionary in the DDR and the annotated train sample for evaluation. `dictvectoR::get_many_F1s()` takes care of this task. Highly similar terms were dropped, keeping the best performing with `dictvectoR::remove_similar_words()`.

Next, the words were reviewed manually. First, words were coarsely coded for relevance. Highly idiosyncratic word combinations and near-duplicates were dropped. Second, the remaining list of 287 terms was annotated using a more nuanced classification. Terms were annotated as referring to 'elites', 'the people', or some kind or 'relation' between those two antagonists. For 'elites' I further annotated subcategories. The terms annotated as 'relation', contained the subcategories 'blaming', 'manipulation', 'sovereignty', 'damaging', and 'unaccountable'. These categories were built inductively from

the identified words but reflect theoretical key dimension of populist discourse. From each of the three dimensions, the 15 best performing terms were selected.

Using combinatorics and random sampling, 2.9 million different combinations of these 45 words were obtained. Dictionary lengths between three to fifteen words were allowed, with at least one word per dimension. The number of combinations was limited by randomly picking up to 100 combinations for each number of words per dimension combination. For example, instead of featuring all 3,003 combinations of length 5 from the 15 terms for 'elites', only 100 were sampled and combined with all combinations for the other dimensions. `dictvectoR::get_combis()` provides this function. The performance of the DDR measurements for each of the 2.9 million combinations was assessed by their F1 in predicting the human annotation in the train data. For the 10k best-performing combinations, F1 scores were computed additionally for each country. To evaluate consistency across countries, the 8th root of the product of the overall F1 score times all seven country F1 scores was calculated. The dictionary that maximized F1 most consistently on the train data was selected. A manual inspection, using the annotated subcategories, deemed that dictionary conceptually balanced and convincing. This dictionary and the validation results are documented in the main text.

Additional Equivalence Assessment

In addition to the validation documented in the main text, I inspected the importance of each single dictionary term for the measurement performance across countries. To quantify the impact of each single term, a list of 12 dictionaries was created where each dictionary left out one of the 12 terms in the selected DDR dictionary. Each of these 'incomplete' dictionaries was used to predict populism in the (1) combined test & train validation sample, and (2) the test sample alone, and a F1 score calculated, as described in the main article. To assess deteriorated or improved performance, I inspect the difference between the F1 scores for the 'incomplete' and the complete DDR-dictionary. The heat-map in Figure C2 documents how leaving out one of the 12 DDR-dictionary terms (y-axis) improves (positive values; light-yellow) or deteriorates (negative values; dark-blue) the F1 score, compared to the complete dictionary performance in predicting populism in the test and train data (left grid) and test sample alone (right grid).

The performance of an ideal measurement would (a) not decrease strongly

by leaving out one term, (b) would exhibit a balanced pattern of term importance, and (c) would exhibit similar patterns across all countries. The heat-map in Figure C2 shows that the selected DDR-dictionary comes close to achieving these goals for the untranslated Austrian and German corpora: The differences there are relatively small (<|.03|) and do not show outlying terms for both the combined data, as well as the test data alone. Similarly homogeneous patterns emerge for the Netherlands, and UK. The pattern is less balanced for France, Sweden, and Italy. For example, leaving out the term "sogenannte experten" decreases the performance on the French train & test corpus by -.05, and in likewise by -.05 in the Italian test corpus. These patterns illustrate that country-contexts continue to have an impact on the meaning of words, even after machine translation (Licht and Lind 2023, 20), and hence affect measurement performance and equivalence. The patterns are more imbalanced in the test data, which seems concerning. However, it must be noted that these imbalances are partly driven by the low number of true positives in the Italian (n= 22, 26%) and Swedish (n=27; 32%) test data, which is below the mean share of true positives in population test dataset (40%). As discussed in the main article, the careful inspection of the DDR measurement raises questions about its comparability across countries. Appendix E presents a robustness check of the comparative findings resulting from the regression analysis.

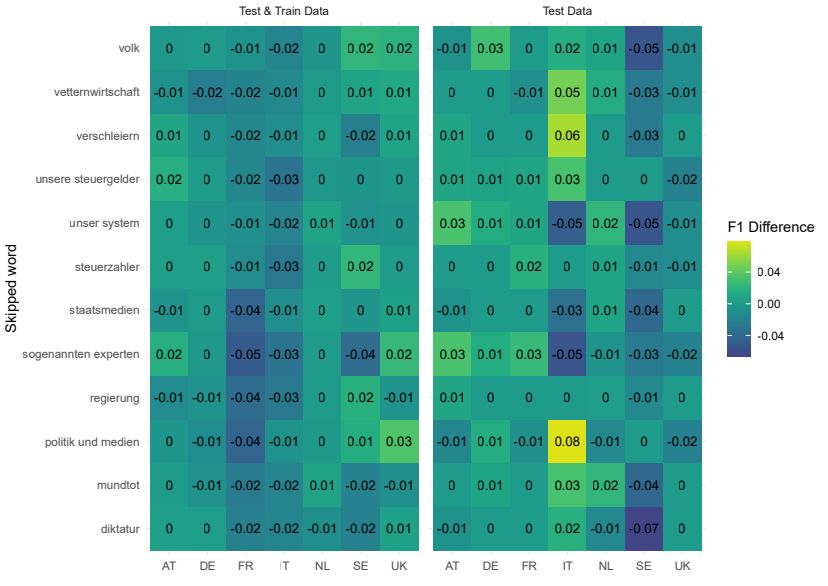

Figure C2: Changes in F1 when leaving out single DDR-dictionary terms by country

Appendix D

Dictionaries

The subsequent tables document the multilingual dictionaries used for capturing references to *COVID-19*, COVID-19 containment policies (*Measures)*, lifting of restrictive policies (*Easing)*, as well as *Experts* and the *Government*. Notably, the dictionaries for the first three categories share overlap, functioning as sub-categories of one another: All terms within *Measures* are encompassed within *COVID-19*, and all terms within *Easing* are included in *Measures*.

The development of these dictionaries commenced with a manual translation derived from an existing German dictionary (Thiele 2022a), complemented by the utilization of translation websites (linguee.de; context.reverso.net) providing contextualized translations. Each term's suitability was determined through careful consideration of suggested translations and contextual relevance. Ambiguous terms were excluded. Subsequently, country-specific *fastText* models were trained, following the methodology detailed in Appendix C, utilizing the non-translated post corpora. These models were employed to retrieve the 20 nearest neighbors for each term. The ob-

tained results underwent a secondary manual inspection, cross-referenced with context-sensitive translation websites (linguee.de; context.reverso.net). Furthermore, I used `quanteda::keywords-in-context()` to inspect the contextual use of the identified keywords within the analyzed corpus. Both sources of information were instrumental in supplementing the list of keywords, increasing the precision of the dictionary, and inferring wildcard placements.

The *Government* dictionaries maintain case sensitivity and were applied to the non-lowercased corpora. To enrich these dictionaries, I compiled the names of the members of each country's national cabinets at the time of analysis, occasionally excluding too common family names. The German and Austrian dictionaries are identical except for their *Government* dictionary. All dictionaries are provided in a machine-readable format in the replication repository.

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
DE	COVID-19 (124)	*ansteck*, *ausgangssperre*, *cluster*, *geimpft*, *immunisier*, *impf*, *infektion*, *infizier*, *lockdown*, *lockerung*, *maske*, *maskenpflicht, *maßnahme*, *pandemi*, *quarantäne*, *reisebeschränkung*, *reiseverbot*, *schnelltest*, *testpflicht*, *vakzin*, *viren*, *virus*, abstandsregel*, angesteckt*, antigen*, antikörper*, arzneimittelbehörde, astra*, ausgangsbeschränkung*, ausreisetestpflicht, biontech*, blutgerinnsel, blutgerinnseln, bundesgesundheitsminister, corona*, cov, covid*, delta, dosen, durchimpfung*, einreise*, einreisebeschränkung*, einreisebestimmungen, einreisestop*, einreiseverbot*, epidemie*, erkranken, erkrankung*, erreger, fallzahl*, ffp*, freitest*, gelockert, genesungen, gesundheitsexperte, gesundheitsminister, gesundheitssystem*, getestet*, ghebreyesus, gurgelt, herdenimmunität, home*office, homeoffice*, hospitalisierungen, hygiene, hygieneregeln, impfpflicht, intensivmedizinisch, intensivpatienten, intensivstationen, inzidenz*, kontaktbeschränkungen, kontaktpersonen, kontaktverbot*, kontrollen, körpernahe, lombardei, lungenkrankheit, masken*pflicht, massentest*, mindestabstand, moderna, mutante, mutanten, mutation, mutationen, neuinfektion*, notfallzulassung, öffnet, öffnungsschritt*, patienten, pcr*, pfizer*, pharmaunternehmen, präsenzunterricht*, regeln, reisewarnung*, reproduktionszahl*, risikogebiet*, risikogruppen, rki, sars*, sauerstoff, schulöffnung*, schulschließung*, schutzmaske*, schutzregel*, selbsttest*, social distanc*, sperrzone, spitalspatienten, stark eingeschränkt, superspread*, tests, teststraße*, teststrategie*, ungeimpft*, weiter eingeschränkt, weltgesundheitsorganisation, who, wieler, wuhan, zeneca, zweite* welle

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
	Measures (69)[b]	*ausgangssperre*, *geimpft*, *impf*, *lockdown*, *lockerung*, *maske*, *maskenpflicht, *maßnahme*, *quarantäne*, *reisebeschränkung*, *reiseverbot*, *schnelltest*, *testpflicht*, *vakzin*, abstandsregel*, antigen*, arzneimittelbehörde, astra*, ausgangsbeschränkung*, ausreisetestpflicht, biontech*, dosen, durchimpfung*, einreise*, einreisebeschränkung*, einreisebestimmungen, einreisestop*, einreiseverbot*, ffp*, freitest*, gelockert, getestet*, gurgelt, home*office, homeoffice*, hygiene, hygieneregeln, impfpflicht, kontaktbeschränkungen, kontaktpersonen, kontaktverbot*, kontrollen, masken*pflicht, massentest*, mindestabstand, moderna, notfallzulassung, öffnet, öffnungsschritt*, pcr*, pfizer*, pharmaunternehmen, regeln, reisewarnung*, risikogebiet*, schulöffnung*, schulschließung*, schutzmaske*, schutzregel*, selbsttest*, social distanc*, sperrzone, stark eingeschränkt, tests, teststraße*, teststrategie*, ungeimpft*, weiter eingeschränkt, zeneca
	Easing (5)[c]	*lockerung*, gelockert, öffnet, öffnungsschritt*, schulöffnung*
	Experts (50)	*arzt, *ärzt*, *expert*, *forschen*, *forschende*, *forscher*, *forschung*, *ologe, *ologen, *ologin, *professor*, *spezialist*, *studie, *studien, *studiendaten*, *studienergebnis*, *universität*, *wissenschaft*, anästhes*, apotheker, charité, drosten, endokrinolog*, epidemiolog*, ethikrat*, fachleute*, fda, ghebreyesus, immunolog*, impfkommission, infektiolog*, institut*, intensivmedizin, intensivmediziner, johns hopkins, mediziner, meduni, mikrobiolog*, pneumolog*, psycholog*, rki, robert koch, stiko, uni, universitätsklinik*, vakzinolog*, virolog*, weltgesundheitsorganisation, who, wieler
	Government - AT (39)[d]	*inisterin Aschbacher, *kanzler*, *koalition*, *minister*, *minister?, *ministerium*, *regierung*, Anschober, Blümel, Brüssel, Christine Aschbacher, Edtstadler, EU Kommission*, eu* Kommission*, Europäische* Kommission*, Faßmann, Gewessler, Kabinett*, Kanzler*, Kocher, Kogler, Kommissionchefin, Kommissionspräsidentin, Köstinger, Kurz, Lunacek, Magnus Brunner, Minister, Ministerin, Ministerium*, Ministerrat*, Mückstein, Nehammer, Raab, Regierung*, Schallenberg, Schramböck, Tanner, Zadic
	Government - DE (38)[d]	*inisterin Schulze, *kanzler*, *koalition*, *minister*, *minister?, *ministerium*, *regierung*, ?on der Leyen, Altmaier, Barley, Brüssel, EU Kommission*, eu* Kommission*, Europäische* Kommission*, Giffey, Heil, Helge Braun, Kabinett*, Kanzler*, Kanzleramt* Braun, Karliczek, Klöckner, Kommissionchefin, Kommissionspräsidentin, Kramp Karrenbauer, Lambrecht, Maas, Merkel*, Minister, Ministerin, Ministerium*, Ministerrat*, Regierung*, Scheuer, Scholz, Seehofer, Spahn, Svenja Schulze

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
EN	COVID-19 (77)	*cluster*, *easing*, *hotspot*, *immuni*, *infect*, *lockdown*, *pandemi*, *quarantine*, *vaccin*, *vaccinated*, *vaxx*, *virus*, antibod*, astra*, ban family visit*, ban visit*, biontech*, cases, combat coronavirus, contact tracing, containment measure*, corona*, coronavirus measure*, coronavirus safety measure*, coronavirus test*, covid measure*, covid test*, covid*, curfew, distancing, dose*, doses, eases, easing, epidemic, epidemic measure*, fatalit*, fight against covid, fight coronavirus, government response*, health verification*, health* measure*, healthcare, isolat*, jab, lifting, limit* travel*, major incident, mask*, mass test*, measure* taken, measure* to combat, measure* to fight, moderna, outbreak, pcr*, pfizer*, re?open*, reopening, restrictions, sanitiser, sars*, stem spread, stem the spread, strict* measure*, superspread*, test and trace, test positive, tested on covid, tested positive, testing, tougher measure*, tracing app, transmission, travel ban*, travel restrictions, wuhan
	Measures (60)[b]	*easing*, *immuni*, *lockdown*, *quarantine*, *vaccin*, *vaccinated*, *vaxx*, astra*, ban family visit*, ban visit*, biontech*, combat coronavirus, contact tracing, containment measure*, coronavirus measure*, coronavirus safety measure*, coronavirus test*, covid measure*, covid test*, curfew, distancing, dose*, doses, eases, easing, epidemic measure*, fight against covid, fight coronavirus, government response*, health verification*, health* measure*, isolat*, jab, lifting, limit* travel*, major incident, mask*, mass test*, measure* taken, measure* to combat, measure* to fight, moderna, pcr*, pfizer*, re?open*, reopening, restrictions, sanitiser, stem spread, stem the spread, strict* measure*, test and trace, test positive, tested on covid, tested positive, testing, tougher measure*, tracing app, travel ban*, travel restrictions
	Easing (6)[c]	*easing*, eases, easing, lifting, re?open*, reopening
	Experts (28)	doctor*, endocrinolog*, epidemiolog*, ethic* adviser, expert*, extrapolate, fda, finds, ghebreyesus, health professional, immunolog*, institute, johns hopkins, microbiolog*, pharmacists, physician*, professor, psycholog*, public health england, pulmonolog*, research*, scien*, specialist*, study, survey, technique, virolog*, world health organi?ation
	Government (48)[d]	Alister Jack, Barclay, Ben Wallace, Brandon Lewis, Braverman, Brussels, Buckland, Coffey, commission president, Commission President, Dowden, EU commission*, European commission, Eustice, Gove, government, Government, Hancock, Hart, Jenrick, Johnson, Kwarteng, Liz Truss, Lord Frost, Mark Spencer, Michael Ellis, Milling, minister, Minister, ministry, Ministry, of Bowes Park, Patel, PM, prime minister Boris, Prime Minister Boris, Prime Minister Johnson, Raab, Rees Mogg, secretary, Secretary, Shapps, Sharma, Sunak, Trevelyan, UK prime minister, UK Prime Minister, Williamson

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
FR	covid-19 (63)	*anticorps, *autotest*, *épidémie, *incidence, *virus, antigéniques, astra*, biontech*, cas, cluster, confin, confinement, confinements, contag*, contamin*, contre la *pandemie, contre le *virus, contre le covid, corona*, couvre feu, cov, covid*, décision* difficil*, déconfinement, doses, écol* ferm*, événements annulés, fermés, fermeture*, ffp*, gestes barrières, hospitalisés, immunis*, immunitaire, immunité, infect*, inocul*, masque*, mesures barrières, mesures de confinement, mesures le covid, mesures restrictives, moderna, nouvell* mesur*, pand*mie, pcr, pfizer*, pharmaceutique, quarantaine, reconfinement, relâchement, réouverture, restrictions, rouvert, sars*, stopcovid, télétravail*, test*, transmission, vaccin*, variant, variants, wuhan
	Measures (41)	*autotest*, antigéniques, astra*, biontech*, confin, confinement, confinements, contre la *pandemie, contre le *virus, contre le covid, couvre feu, décision* difficil*, déconfinement, doses, écol* ferm*, événements annulés, fermés, fermeture*, ffp*, gestes barrières, inocul*, masque*, mesures barrières, mesures de confinement, mesures le covid, mesures restrictives, moderna, nouvell* mesur*, pcr, pfizer*, pharmaceutique, quarantaine, reconfinement, relâchement, réouverture, restrictions, rouvert, stopcovid, télétravail*, test*, vaccin*
	Easing (4)[c]	déconfinement, relâchement, réouverture, rouvert
	Experts (30)	*ologiste, *ologue, *ologues, chercheur*, conseil de la santé, endocrinolog*, épidémiolog*, essai* clinique*, étude*, expert*, fda, ghebreyesus, hcsp, immunolog*, infectiolo*, institut, johns hopkins, médecin, médecins, microbiolog*, oms, organisation mondiale de la santé, pneumolog*, professionnel* de santé, psycholog*, scien*, spécialist*, traitement, université, virolog*
	Government (40)[d]	Bachelot, Belloubet, Blanquer, Borne, Bruxelles, Buzyn, Castex, Collomb, Commission européenne, Darmanin, Denormandie, Dupond-Moretti, Dupond Moretti, Edouard Philippe, Flessel Colovic, Girardin, Gourault, gouvernement, Hulot, Le Drian, Le Maire, Lecornu, Macron, Matignon, Mézard, ministère, ministre*, Montchalin, Nyssen, Parly, Pénicaud, Pompili, président de la République, président Emmanuel, président français, président Macron, présidente de la Commission européenne, Travert, Véran, Vidal
IT	COVID-19 (70)	*antigen*, *contag*, *epidemi*, *immun*, *incidenz*, *infett*, *infez*, *pandemi*, *vaccin*, *vaccina*, *virale, *virus*, allentament*, anti coronavirus, anti covid, anti virus, anticorp*, astra zeneca, astrazeneca, biontech*, casi, contenere i*, contenere la, contenimento, coprifuoco, coronavir*, cov, covid*, decessi, delta, distanziamento, dosi, ffp*, guariti, impone, isolament*, lockdown, lotta alla pandemia, mascherin*, misura, misure, misure restrittive, misure rigide, morti, nuova stretta, passaporto sanitario, pfizer, provvedimenti, quarantena, restrizioni, riaperture, riapre, ricoverati, sars*, scuole chiuse, sintomi, superspreader, telelavor*, test, trasmissibilità, trombosi, una stretta, variante, virologi, virologia, wuhan, zona arancione, zona gialla, zona rossa, zone rosse

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
	Measures (43)[b]	*antigen*, *vaccin*, *vaccina*, allentament*, anti coronavirus, anti covid, anti virus, astra zeneca, astrazeneca, biontech*, contenere i*, contenere la, contenimento, coprifuoco, distanziamento, dosi, ffp*, impone, isolament*, lockdown, lotta alla pandemia, mascherin*, misura, misure, misure restrittive, misure rigide, nuova stretta, passaporto sanitario, pfizer, provvedimenti, quarantena, restrizioni, riaperture, riapre, scuole chiuse, telelavor*, test, trombosi, una stretta, zona arancione, zona gialla, zona rossa, zone rosse
	Easing (3)[c]	allentament*, riaperture, riapre
	Experts (39)	agenzia italiana del farmaco, aifa, anestes*, autorità sanitarie, borrelli, commissione sanitaria, dott, dottore*, endocrinolog*, epidemiolog*, espert*, farmacisti, fda, fondazione, ghebreyesus, immunolog*, infettivolog*, institut*, johns hopkins, magrini, medici, medico, microbiolog*, oms, organizzazione mondiale della sanità, pneumolog*, professore*, psicolog*, ricerc*, ricerca, ricercatore, ricercatori, ricercatrice, scien*, specialist*, studi, studio, università, virolog*
	Government (59)[d]	*inistro Bianchi, ?onsiglio dei ?inistri, ?residente del ?onsiglio, Amendola, Azzolina, Bellanova, Boccia, Bonafede, Bonetti, Brunetta, Bruxelles, Carfagna, Cartabia, Catalfo, Cingolani, Colao, commissione europea, Commissione europea, Commissione Europea, Consiglio dei ministri, Conte, D'Incà, D Incà, Dadone, Daniele Franco, De Micheli, Di Maio, Draghi, Fioramonti, Fraccaro, Franceschini, Garavaglia, Garofoli, Gelmini, Giorgetti, Giovannini, governo, Governo, Gualtieri, Guerini, Lamorgese, Manfredi, Messa, minister?, Minister?, ministr?, Ministr?, Orlando, Patrizio Bianchi, Patuanelli, Pisano, premier, presidente della ?ommissione ?uropea, presidente della ?ommissione Ue, Provenzano, Sergio Costa, Spadafora, Speranza, Stefani
NL	COVID-19 (110)	*antigeen*, *antilicham*, *besmet*, *inent*, *infect*, *lockdown*, *masker*, *metermaatregel*, *pandemie*, *quarantain*, *reisverbod*, *vaccin*, *virus*, afstand*, anderhalvemetermaatschap*, anderhalvemeterregel, anderhalvemetersamenlev*, astra*, avondklok*, avondklokken, avondklokrellen, basisschool dicht, beperkende maatregel*, bezoekregel*, bijwerkingen, biontech*, cluster*, code rood, corona, corona maatregel*, corona*, coronabeleid, coronagevallen, coronamaatregelen, coronaregels, coronatesten, coronatests, coronawet, covid*, doses, ema, epidemie*, farmaceut, farmaceuten, ffp*, gaan dicht, gemuteerde, geneesmiddelenbureau, geprikt, gevaccin*, gezondheidsraad, gezondheidszorg*, groepsimmuniteit*, heropenen, injectie, inreisregel*, kunnen open, maatregel*, maatregel* om de verspreiding, maatregel* tegen het coronavirus, masker*, moderna, mondkapje*, mutatie, nieuwe maatregel*, openingsplan, patiënten, pcr*, pfizer*, prikken, reisadvie*, reisbeperk*, reisverbod*, reproductiegetal*, restaurants dicht, risicogebied*, rivm, sars*, scholen dicht, sneltest*, sterfgevallen, steunmaatregelen, strenge* maatregel*, terrassen open*, testen*, teststrategie, teststraten, thuisblijven, thuiswerken, variant, varianten, veiligheidsmaatregel*, verpleegafdelingen, verplicht, versoepeld, versoepelen, versoepeling, versoepelingen, virusmaatregelen*, voorlopig dicht, weer open*, wereldgezondheidsorganisatie*, who, winkels dicht, wuhan, zelftest*, ziekenhuis, ziekenhuisopnames, ziekenhuispersoneel, zorgsysteem*

Table D1: Dictionaries.

Language	Concept *(n words)*	Words[a]
	Measures (58)[b]	*antigeen*, *inent*, *lockdown*, *masker*, *quarantain*, *reisverbod*, *vaccin*, afstand*, anderhalvemeterregel, astra*, avondklok*, avondklokken, avondklokrellen, bezoekregel*, biontech*, coronabeleid, coronamaatregelen, coronaregels, coronatesten, coronatests, coronawet, doses, ema, farmaceut, ffp*, geprikt, gevaccin*, heropenen, injectie, inreisregel*, kunnen open, maatregel*, masker*, moderna, mondkapje*, openingsplan, pcr*, pfizer*, prikken, reisadvie*, reisbeperk*, reisverbod*, risicogebied*, sneltest*, steunmaatregelen, terrassen open*, testen*, teststrategie, teststraten, thuiswerken, verplicht, versoepeld, versoepelen, versoepeling, versoepelingen, virusmaatregelen*, weer open*, zelftest*
	Easing (10)[c]	heropenen, kunnen open, openingsplan, steunmaatregelen, terrassen open*, versoepeld, versoepelen, versoepeling, versoepelingen, weer open*
	Experts (37)	*deskundige*, *expert*, *loog, *ologen, *onderzoek, *onderzoek*, *onderzoeken, *onderzoeker*, *specialist*, *studie, *studies, *wetenschap*, arts*, dokt?r*, epidemiolog*, fda, ggd, ghebreyesus, hogeschool, hooglera*, immunolog*, istitut*, johns hopkins, longarts*, microbiolog*, nvwa, planbureau*, professor*, psycholog*, rijksinstituut, rivm, scp, studieresultaten, universiteit, virolog*, wereldgezondheidsorganisatie, who
	Government (46)[d]	*inister Bruins, *inister Schouten, *minister, *minister?, ?an Ark, ?an Engelshoven, ?an Nieuwenhuizen, ?an Rijn, ?an Veldhoven, ?e Jonge, Barbara Visser, Bijleveld, Blok, Bruno Bruins, Brussel, Carola Schouten, Commissievoorzitter, de Bruijn, Europese Commissie, Grapperhaus, Henk Kamp, Hoekstra, Kaag, kabinet*, Kabinet*, Knapen, Koolmees, Minister, ministerie, Ministerie, ministerraad, Ollongren, overheid, Overheid, premier, Premier, Raymond Knops, regering*, Regering*, Rutte, Sander Dekker, Slob, van Nieuwenhuizen, van t Wout, Wiebes, Zijlstra
SE	COVID-19 (110)	*epidemi*, *infekt*, *karantän*, *lockdown*, *masker*, *pfizer*, *reseförbud*, *reserestriktion*, *vaccin*, *virus*, antigen*, antikropp*, astra*, besöksförbud, biontech*, biverkningar, blodproppar, bromsa* spridning*, corona strategi, corona*, coronaåret, coronapandemin, coronarestriktioner*, coronasmittad, coronasmittade, coronastrategi*, coronatest*, coronatider, covid strategi, covid test, covid*, covidtest*, distansering, distansundervisning*, dödssiffran, dosen, doserna, ema, farsot*, flockimmunitet*, folkhälsomyndighet* rekommendation*, folkhälsomyndigheten, folkhälsomyndighetens, folkhälsomyndighetens råd, folksamlingar, förblir stängt, fortsatt stäng*, håll* avstånd, håll* hemma, håll* öppet, hålla gränser öppna, hållas stängd, immunitet, immuniteten, incidens*, inreseförbud*, inreserestriktion*, isoler*, kampen mot corona*, kampen mot covid*, klartecken, kontaktförbud, läkemedelsbolaget, läkemedelsjätten, lättnader, masstest*, modernas, munskydd*, mutation, mutationen, nedstängning*, öpp* gräns*, öpp* igen, öppna, öppning*, pandemi*, pandemilagen*, patienten, pcr*, restriktioner, restriktionerna, riskområde*, sars*, självtest*, sjukhusen, sjukhusvård, sjukvård*, skolorna öppnar, skolstängningar*, skyddsåtgärd*, smitt*, snabbtest*, spridningen, stäng* alla, stäng* gräns*, stäng* sina gräns*, stäng* skol*, stäng* sve*, stänga barer, stängd* krogarna, stängda, stoppa* spridning*, testning*, testresultat, uppluckring, utegångsförbud*, världshälsoorganisation*, wuhan, zeneca, zenecas

Table D1: Dictionaries.

Language	**Concept** *(n words)*	**Words**[a]
	Measures (79)[b]	*karantän*, *lockdown*, *masker*, *pfizer*, *reseförbud*, *reserestriktion*, *vaccin*, antigen*, astra*, besöksförbud, biontech*, biverkningar, blodproppar, bromsa* spridning*, corona strategi, coronarestriktioner*, coronastrategi*, coronatest*, covid strategi, covid test, covidtest*, distansering, distansundervisning*, dosen, doserna, ema, folkhälsomyndighet* rekommendation*, folkhälsomyndighetens råd, folksamlingar, förblir stängt, fortsatt stäng*, håll* avstånd, håll* hemma, håll* öppet, hålla gränser öppna, hållas stängd, inreseförbud*, inreserestriktion*, isoler*, kampen mot corona*, kampen mot covid*, klartecken, kontaktförbud, läkemedelsbolaget, läkemedelsjätten, lättnader, masstest*, modernas, munskydd*, nedstängning*, öpp* gräns*, öpp* igen, öppna, öppning*, pandemilagen*, pcr*, restriktioner, restriktionerna, riskområde*, självtest*, skolorna öppnar, skolstängningar*, skyddsåtgärd*, snabbtest*, stäng* alla, stäng* gräns*, stäng* sina gräns*, stäng* skol*, stäng* sve*, stänga barer, stängd* krogarna, stängda, stoppa* spridning*, testning*, testresultat, uppluckring, utegångsförbud*, zeneca, zenecas
	Easing (10)[c]	håll* öppet, hålla gränser öppna, klartecken, lättnader, öpp* gräns*, öpp* igen, öppna, öppning*, skolorna öppnar, uppluckring
	Experts (39)	*epidemiolog*, *expert*, *forskare, *forskaren, *forskning*, *institutet, *läkare*, *läkarn*, *professor, *professorn, *studie, *studier, *universitet*, *vetenskap*, fda, fhi, fhm, folkhälsomyndighet*, forskarna, ghebreyesus, immunolog*, ivo, johns hopkins, läkark*, mikrobiolog*, msb, psykolog*, sakkunnig*, scb, sjukvårdsdirektör, socialstyrelsen, specialist*, statistiska centralbyrån, tegnell, universitetssjukhuset, vaccinimmunolog*, världshälsoorganisationen*, virolog*, who
	Government (45)[d]	*departement*, *minister, *minister* Johansson, *minister?, Amanda Lind, Ann Linde, Anna Hallberg, Baylan, Bolund, Bryssel, Damberg, Ekström, Eneroth, Ernkrans, EU kommission*, Eva Nordmark, Fridh, Hans Dahlgren, Jennie Nilsson, kommissionens ordförande, kommissionsordförande, Lena Hallengren, Lindhagen, Löfven, Lövin, Magdalena Andersson, Margot Wallström, Micko, Minister*, ministerrådet, Morgan Johansson, Peter Eriksson, Peter Hultqvist, regering*, Regering*, regeringskansliet*, Regeringskansliet*, Shekarabi, statsminister*, Statsminister*, statsråd*, Statsråd*, Stenevi, Strandhäll, Ygeman

Notes: : (a) A * represents a wildcard, it matches any number of characters or digits; (b) All terms included in 'measures' are also included in 'COVID-19'; (c) All terms included in 'easing' are also included in 'measures' and 'COVID-19'; (d) Case-sensitive.

Appendix E

Table E1: Bayesian linear regression models, non-pooled data.

	AT		DE		FR		IT		NL		SE		UK	
Predictors	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*	*Est.*	*CI (95%)*
Intercept	-.03	-.07 – .01	.08	.05 – .12	.20	.16 – .24	-.01	-.06 – .03	-.38	-.42 – -.35	.11	.07 – .15	.03	-.02 – .07
Comments count	.10	.08 – .12	.18	.17 – .20	.19	.17 – .21	.17	.15 – .20	.17	.15 – .18	.06	.04 – .09	.27	.24 – .29
Days since outbreak	-.04	-.08 – -.01	.11	.08 – .15	.01	-.03 – .05	.05	.01 – .08	-.00	-.04 – .03	.05	.02 – .09	-.07	-.12 – -.03
First wave	-.34	-.40 – -.27	-.25	-.32 – -.18	-.25	-.33 – -.17	-.05	-.13 – .02	-.17	-.24 – -.10	-.19	-.27 – -.11	-.09	-.18 – -.00
Stringency (lagged)	.02	-.01 – .05	.00	-.02 – .03	-.04	-.07 – -.02	-.02	-.05 – .00	.01	-.02 – .04	-.03	-.06 – -.00	.12	.08 – .16
COVID-19 (mentioned)	.17	.13 – .20	.29	.25 – .32	.09	.05 – .13	.20	.16 – .24	.30	.26 – .34	.13	.08 – .17	.21	.16 – .25
Government (mentioned)	.56	.51 – .60	.29	.24 – .33	.47	.41 – .53	.45	.39 – .51	.59	.54 – .65	.52	.45 – .58	.58	.51 – .66
Experts (mentioned)	.13	.07 – .19	.03	-.02 – .08	.18	.09 – .26	.07	.01 – .13	.22	.16 – .27	.15	.10 – .20	.11	.03 – .19
Media type (tabloid)	-.16	-.20 – -.12	-.70	-.74 – -.66	-.54	-.59 – -.49	-.40	-.45 – -.35	.23	.19 – .27	-.51	-.56 – -.46	-.53	-.59 – -.48
Media type (pub. broadcaster)	.09	.04 – .15	.25	.21 – .29	-.13	-.18 – -.09	.00	-.05 – .05	.48	.44 – .53	-.12	-.17 – -.07	.08	.02 – .14
Moderation	.02	-.06 – .10	-.17	-.21 – -.12	-.14	-.51 – .22	-.39	-.94 – .18	-.22	-.47 – .03	-.03	-.14 – .07	-.22	-.36 – -.08
Stringency x COVID-19	.13	.10 – .17	.10	.07 – .13	.01	-.03 – .05	.01	-.04 – .05	.13	.09 – .16	-.02	-.06 – .02	-.01	-.06 – .04
Bayes R^2	.13	.12 – .14	.34	.33 – .35	.13	.12 – .14	.12	.11 – .13	.20	.19 – .22	.09	.08 – .10	.22	.20 – .23
N	12,345		10,066		8,818		8,547		9,913		9,123		6,446	

Notes: Priors: intercept (normal 0, 10), b (normal 0, 10), σ (Cauchy 0, .5). Bayes R^2 estimated on 2,000 draws.

As a robustness check for the comparative analysis presented in the main article, Table E1 presents the outcomes of Bayesian regression models fitted separately for each country, using non-pooled data. These models encompass all variables featured in Model 3 of the main article, excluding random effects on page level due to the limited categories within the grouping variable, page, which comprises only 3 categories per country. This is deemed insufficient even within a Bayesian framework. While media type is included in these models, aligning with the page variable when countries are examined independently, uncertainty from the page level isn't directly modeled, resulting in narrower credible intervals (CIs). Continuous variables in these models were standardized and centered on country-means.

To corroborate the positive effect of stringency on populism when mentioning COVID-19, as observed in Model 3 for Germany, Austria, and the Netherlands in the main article, Figure E1 illustrates the populism predictions under specified conditions from country-specific models. Stringency ranges from the overall minimum (uniform across countries; represented in yellow) to the overall maximum (depicted in purple). The interaction of mentioning COVID-19 with this variable is set to 1, while all other variables are set to 0 or their respective means, consistent due to centering.

The distributions depict posterior draws, with lines indicating the 80% (bold) and 95% (thin) CIs. The figure highlights substantial positive effects of stringency on populism when COVID-19 is mentioned, observed in the country samples of Austria, Germany, the Netherlands, and additionally, the UK, supplementing the findings from the main article. Conversely, these effects are either insignificant (Italy) or trend in the opposite direction (FR, SE) in other countries. Inspecting the Bayes-R^2 in Table E1, which are estimated on 2,000 draws, shows that the fitted model explains an exceptionally large variance (.34, [.33-.35]) in the German data. However, this does not seem to be an artifact of language: Both, for the UK (.22, [.20-.23]) and for the Netherlands (.20, [.19-.22]), we find higher values of Bayes-R^2 than for equally German-speaking Austria (.13, [.12-.14]). Overall, although the CIs might not fully capture the uncertainty from the page level, these findings fortify the robustness of the country-specific effects identified in Model 3 of the main article.

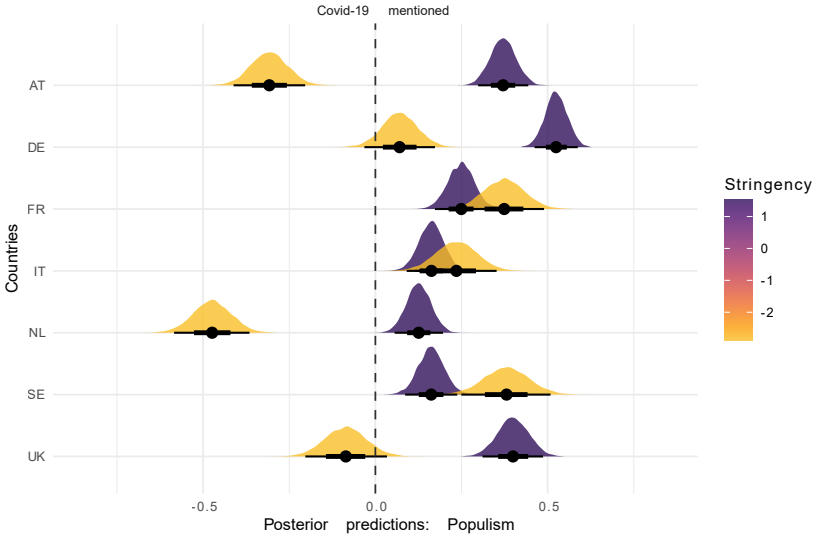

Figure E1: Conditional effects of stringency on the predicted level of populism by country

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