

## ORIGINAL ARTICLE

# Is the stereotype of welfare recipients associated with type of welfare state regime? A cross-national meta-regression of the stereotype content model

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**Abstract**

The association of societal-level structural factors with stereotypes and stigma can be examined using the stereotype content model (SCM). The main aim of the current study was to review and synthesize all available research data of SCM dimensions of Warmth and Competence perceptions of welfare recipients, and compare the ratings in different types of social welfare regimes (Nordic, Conservative, and Liberal). To do this, we reviewed all published literature using the SCM methodology to assess stereotypes of welfare recipients and performed a cross-national meta-regression of 17 datasets (total  $N = 1797$ ) drawn from six countries representing three types of welfare regimes. In each of the studies, participants were asked how others in their country viewed welfare recipients on the dimensions of warmth and competence. We predicted and found support for the hypothesis that countries with a Nordic welfare regime have a warmer cultural stereotype of welfare recipients than countries with a Liberal or Conservative regime. However, the expected association between Liberal welfare regime and incompetence stereotypes was not found. Supplementary analyses showed that the type of welfare regime better explained country differences in welfare stereotypes than country differences in income inequality. This study demonstrates how stereotypes of warmth and competence vary across welfare regimes, adding to knowledge about how societal-level factors are related to cultural stereotypes.

## 1 | INTRODUCTION

### 1.1 | Social welfare regime -typology

The social welfare system is a critical aspect of society. In most countries within the Organization for Economic Co-operation and Development (OECD) (OECD, 2016), the average expenditure on social welfare exceeds 20% of gross domestic product. According

to the typology of Esping-Andersen (1990), there are three types of welfare regimes (Liberal, Conservative, and Nordic), which reflect the way support is allocated, the extent of financial support provided, and the goals of the welfare system. In countries with a Liberal regime (e.g., Australia, USA), modest means-tested payments are highly targeted to those with the greatest need. In countries with a Nordic regime (e.g., Finland, Norway, Sweden), support is considered a right of citizenship and payments are larger and more widely

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available (though recipients may still struggle to make ends meet; Halvorsen, 1997). In countries classified with a Conservative regime (e.g., Germany, France), the size of payments falls between the Liberal and Nordic regimes, and entitlement is largely tied to prior contributions.

## 1.2 | Welfare stereotypes

There are differences in how welfare recipients are treated across these different welfare regimes (Roosma et al., 2014; Toikko & Rantanen, 2017). For example, the Nordic regime appears better than the other regimes at preventing disadvantage by providing support to more people at an earlier time, before individual's enter poverty or experience dire need (Esping-Andersen, 2015). In the Liberal regime, by contrast, policies are more limited and punitive, and project a negative perception of those who rely on the social welfare system (e.g., drug testing policies; Alvarez, 2012; Brookfield, 2017). For example, a recent Australian pilot scheme involved drug testing of income support recipients and withholding payment following positive test results (Ritter, 2019). In Liberal regimes, the stigmatising labels used for some welfare programs is also likely be associated with negative stereotypes, such as "work-for-the-dole" in Australia or the use of "food stamps" in the US.

The mechanisms through which welfare policies link to cultural stereotypes and types of welfare regime are not clear (Birkelund, 2006). Some research shows a consistency between negative attitudes toward the welfare system and negative attitudes toward welfare recipients (Aarøe & Petersen, 2014). Others report a person can have positive attitudes toward the welfare system (e.g., support for increasing welfare accessibility) while holding negative views of the individuals who receive welfare (e.g., Schofield & Butterworth, 2015). Much of the previous research on public perceptions of welfare recipients has examined deservingness or solidarity (Jensen & Petersen, 2017; Van Oorschot, 2006). This research assesses perceptions of who should get what payments and support, and why (e.g., assessing perceptions of people's need for support, their control or responsibility for their circumstances, and their previous contribution to society; Van Oorschot, 2000). This research methodology is, therefore, specific to the social policy context. To expand on this prior research literature, the current study used a more general social psychological methodology to examine whether the type of welfare regime is associated with cultural stereotypes of welfare recipients.

## 1.3 | Stereotype content model

Cultural stereotypes of different social groups have been investigated cross-nationally using the stereotype content model (SCM) (Fiske et al., 2002). The SCM provides a natural framework to study two key factors that are linked with the cultural stereotypes of social groups: intergroup competition and social status (Cuddy

et al., 2008). Groups seen as being in competition (e.g., seeking to access limited public funds) are stereotyped as low in warmth or unfriendly. Independent of this perception, groups seen as high status (e.g., those with high pay jobs) are stereotyped as more competent and capable of enacting their plans. In the SCM framework, the dimensions of *warmth* and *competence* are considered the two fundamental dimensions of person perception that emerge in all cultures (Cuddy et al., 2008). Cross-nationally, "welfare recipients" are a social group that is stereotyped negatively on both warmth and competence (Durante, Fiske, et al., 2017; Durante et al., 2013; Fiske et al., 2002).

Although these two dimensions are considered to be the basis of stereotypes in all cultures, there can be differences in how particular social groups are perceived on these dimensions in different countries. This variation appears to be systematically explained by structural features of the society, such as inequality or individualism (Cuddy et al., 2009; Durante et al., 2013; see also Fiske, 2017). This is the main focus of the current study: whether there are systematic differences in perceptions of the warmth and competence of welfare recipients in countries with different types of welfare regimes. For example, previous research has shown that social groups are more likely to be stereotyped as "warm but incompetent" or "cold but competent" in countries with higher levels of income inequality (Durante et al., 2013). Other cross-national analysis have found that, in less equal countries, the poor are viewed as more incompetent and the rich as less warm, compared to more equal countries (Durante, Tablante, et al., 2017). The current study considers perceptions of the welfare recipient social group across countries, and examines welfare regime as an indicator of structural societal differences.

## 1.4 | Stereotype content in welfare regimes

Using the SCM as a starting point, the current study generated theoretical predictions for stereotypes of warmth and competence reflecting how the different welfare regimes have been shown to be associated with status concerns and competition. Esping-Andersen's (1990) taxonomy of welfare regimes makes direct reference to both status and competition. In the Nordic regimes, the universal benefits may reduce perceptions of competition, and thus elevate warmth stereotypes of welfare recipients. Both SCM researchers and deservingness researchers have claimed that warmth and deservingness are similar constructs (Aarøe & Petersen, 2014; Fiske et al., 2007). Deservingness research confirms that welfare recipients are seen as the most deserving—and by proxy the most warm—in Nordic countries (Aarøe & Petersen, 2014; Larsen, 2007).

In contrast to the universal supports provided in Nordic regimes, the tight targeting of welfare payments to those at the bottom of society in Liberal regimes emphasizes status differences. Under the SCM, low status is associated with stereotypes of incompetence (Fiske et al., 2002). Thus, we expect welfare recipients will be stereotyped as less competent in Liberal regime countries. In contrast, the contributory nature of Conservative

regimes preserves existing status differences and the high levels of redistribution in Nordic regime countries reduces status differences, suggesting the welfare recipient stereotypes will be higher in competence in these regimes than in Liberal regimes (Esping-Anderson, 1990, 2015). There is little previous research comparing perceptions of competence across welfare regimes. One study has reported that citizens from Liberal welfare regimes are less likely to see welfare recipients as hard-working but unlucky than those from Nordic countries (Aarøe & Petersen, 2014). This may indicate that welfare recipients are stereotyped as less competent in Liberal regime countries.

It is important to note that the SCM task itself does not assess personal stereotypes, but instead asks study participants to report on the views of others in their society. The SCM methodology has been demonstrated to provide a valid estimate of community attitudes, even when non-representative samples are used (see Fiske et al., 2007).

## 1.5 | Current study

In summary, previous studies have used the SCM to make cross-national comparisons of stereotype of various social groups, but no study has used the SCM methods to examine cross-national differences in welfare recipient stereotypes or considered whether country differences are associated with the type of welfare regime. The current study aimed to review and synthesize all published SCM data about welfare recipients using a meta-regression approach. It is the first study to provide cross-national data of welfare recipients using the two fundamental dimensions of interpersonal perception; warmth and competence. The two main hypotheses tested in this study are:

1. Welfare recipients in countries with a Nordic regime are stereotyped as more warm than those in Liberal and Conservative countries.
2. Welfare recipients in countries with a Liberal regime are stereotyped as less competent than those in Nordic and Conservative countries.

## 2 | METHOD

### 2.1 | Review strategy

A systematic search was conducted to identify relevant literature. We used three search methods using the following search terms: *welfare*, *warmth*, *competence*, "*stereotype content model*": (1) Google Scholar search; (2) Keyword search on Scopus and Web of Science; (3) searching the reference lists of all articles that met the inclusion criteria. We included any empirical studies published in English that evaluated how others perceived welfare recipients on the dimensions of warmth and competence using the SCM method. Grey

literature was not automatically excluded. A Google Scholar search on 19/01/2018 yielded 946 results, with the first 400 results reviewed.<sup>1</sup> Keyword search on Scopus and Web of Science on 11/04/2018 identified 92 articles, all of which had been previously identified. This search approach was repeated on 12/11/2020 and one additional study was identified. The first author screened all abstracts and titles and the second author double screened 30% of them and did not identify any additional publications. The first and second author independently checked the reference lists of all articles that met the inclusion criteria but identified no new manuscripts.

### 2.2 | Data extraction

Nineteen samples from thirteen manuscripts met the inclusion criteria. The minimum data required for inclusion in the analyses was information on: Sample Size (*N*), Mean Warmth rating, Mean Competence rating, and country of sampling. For most studies, relevant information was available in the version of record or the author copy deposited in a repository. Where these data were not available, we contacted the authors for relevant information. We excluded two samples: a Belgian sample referenced by Cuddy et al. (2009) as the study data could not be obtained, and a Kosovan sample (Grigoryan et al., 2020) as the country could not be classified in the Esping-Andersen welfare regime taxonomy (Stambolieva, 2013). The remaining seventeen samples were drawn from six countries (Norway, Sweden, the USA, New Zealand, Germany and Poland). Five of these countries were classified in the different welfare state regimes by Esping-Andersen (1990), while Poland has been classified with a Conservative type welfare regime in the post-Soviet era (Aspalter et al., 2009). As indicated in Table 1, there were data from two countries in each type of welfare regime.

### 2.3 | Extracted values

Details on the extraction method for each study are reported in Table 1. Where possible, mean scores for warmth and competence and a measure of variance (*SD/SE*) were extracted from each manuscript. This information was extracted for the welfare recipient group, as well as eight other social groups for which there were measures available for each type of welfare regime across the included studies: rich people (*k* = 11); feminists (*k* = 8); gay men (*k* = 8); students (*k* = 6); men (*k* = 3); women (*k* = 3); housewives (*k* = 6); and, the unemployed (*k* = 6).

If data were unavailable in the manuscript and no response was received from authors, values were extracted from published scatterplots using the R package *metaDigitise*, (Pick et al., 2018) which extracts

<sup>1</sup>Google Scholar employs a search engine approach, rather than a database approach, whereby the publications at the start of the result list more relevant to the search terms.

TABLE 1 List of studies included in cross-national meta-regression, coding method, and extracted scores

Paper	Study	Sample	Extraction method	Welfare regime type	N	Other groups
Bye et al. (2014)	1	Norway general population, unclear recruitment method	Table	Nordic	40	Rich people; feminists; gay men; students; men; women; housewives; unemployed
Lindqvist et al. (2017)	1	Swedish language, assumed Swedish Internet forums	Text	Nordic	102	
	2a	Swedish undergraduates	Text	Nordic	100	
	2b	Swedish undergraduates	Text	Nordic	83	
Jarosz and Biela (2009)	1	Polish mixed (high school students, university students, workers, recruiters)	Metadigitise	Conservative	97	Students <sup>d</sup> ; unemployed
Asbrock (2010)	1	Germany university students	Table	Conservative	82	Rich people; feminists; gay men; student; men; women; housewives; unemployed
Eckes (2002)	2	Germany University Students	Metadigitise	Conservative	58	Feminists; unemployed
Fiske et al. (1999)	1	USA undergraduates	Metadigitise	Liberal	42	Rich people; feminists; gay men; unemployed
Fiske et al. (2002)	1	USA non-student	Metadigitise	Liberal	38	Rich people; feminists; gay men; housewives
	1	USA student	Metadigitise	Liberal	73	Rich people; feminists; gay men; housewives
	2	USA undergraduates	Metadigitise	Liberal	73 <sup>c</sup>	Rich people; gay men; student; men; women
	3	USA general population	Table	Liberal	230	Rich people; feminists; housewives
Cuddy et al. (2007)	1	USA representative	Metadigitise <sup>a</sup>	Liberal	571	Rich people; feminists
Sadler et al. (2012)	1	USA Amazon mTurk	Text	Liberal	61	
Durante et al. (2013)	1	European-New Zealander	Author <sup>b</sup>	Liberal	23	Rich people; gay men; students; unemployed
		Maori-New Zealander	Author	Liberal	30	Rich people; gay men; students; unemployed
Asbrock et al. (2011)	1	New Zealand people on the street	Author	Liberal	93 <sup>f</sup>	Rich people

Note: The SE for warmth and competence is estimated from the average SD in other studies and the observed N when the extraction method was Metadigitise.

<sup>a</sup>Analysis performed on figure Research Gate version of manuscript as version of record lacks axis values <https://tinyurl.com/y8887fbc>.

<sup>b</sup>Tests of the reliability of Metadigitise compared this data to analysis performed on figure from Fiske's personal webpage, <http://archive.is/6t3jl>, combined with values from manuscript supplementary materials.

<sup>c</sup>Sample size is reported as either "73 or 74" in text.

<sup>d</sup>Presented as "university students".

<sup>e</sup>Presented as "the wealthy".

<sup>f</sup>Five participants with missing data on one or more of the four ratings were excluded.

summary statistics from graphs. In these instances, the average standard deviations from studies with reported data were used. More information about this approach is provided in the supplementary materials, but comparison of the means obtained using this method when data were reported showed an intra-class correlation coefficient of 0.997.

## 2.4 | Assumption testing

We hypothesized that there would be differences in the ratings of welfare recipient groups tied to a country's welfare regime, but that these differences would not be evident in ratings of the other social groups. We tested this assumption by comparing warmth and competence ratings for the eight additional social groups, averaging across social groups within each welfare regime (using the metan function in STATA). After Goldstein and Healy (1995), the results in Supplementary Figure S1 present means with confidence intervals constructed so that non-overlap is indicative of a difference at  $p < .05$ . For warmth, there was no difference in how these other social groups (rich people, feminists, gay men, students, men, women, housewives, the unemployed) were stereotyped between Nordic (3.24), Liberal (3.21) or Conservative regime countries (3.13). For competence, stereotypes in Nordic (3.46) and Liberal regime countries (3.40) were similar, but each was rated as more competent than countries with Conservative welfare regimes (3.19). To adjust for any potential general rating bias across welfare regimes, we calculated the difference between the ratings of these other social groups in each welfare regime and the overall mean across regimes (separately for warmth and competence), and subtracted this from ratings of welfare recipients (i.e., adjusting the rating of welfare recipients for the deviation observed for non-focal social groups).

## 2.5 | Analysis

Hypothesis testing was performed using random-effects meta-regression, consistent with prior cross-national SCM research (e.g., Durante, Fiske, et al., 2017). Meta-regression is an extension to subgroup analyses in meta-analysis (Deeks et al., 2011). It is similar to normal ordinary least squares regression using study characteristics as predictors and the scores observed in each study as the outcomes. Unlike ordinary least squares regression, each study observation is weighted by the precision of estimates (using the SE). Studies with more precise measurement (smaller SEs) are given greater weight than those with larger SEs. The *metareg* package for STATA 14 was used (Harbord & Higgins, 2008).

### 2.5.1 | Interpreting the meta-regression results

There are limited guidelines around power and study numbers in meta-regression (Borenstein et al., 2009). The Cochrane handbook recommends 10 studies per covariate (Deeks et al., 2011), while Fu

et al. (2011) recommend four studies for each level of a categorical covariate. The hypothesis tests in the current study meet both sets of guidelines. However, some of the follow-up comparison testing may be underpowered. We also adopt advice to be cautious when interpreting null effects in meta-regression (Borenstein et al., 2009). We also report in supplementary materials the results of more conservative permutation tests (based on 10,000 reallocations) (Fu et al., 2011; Higgins & Thompson, 2004). The probability value from this resampling approach reflects how often (among the 10,000 replications) the test statistic obtained supports (is greater than or equal to) the original result.

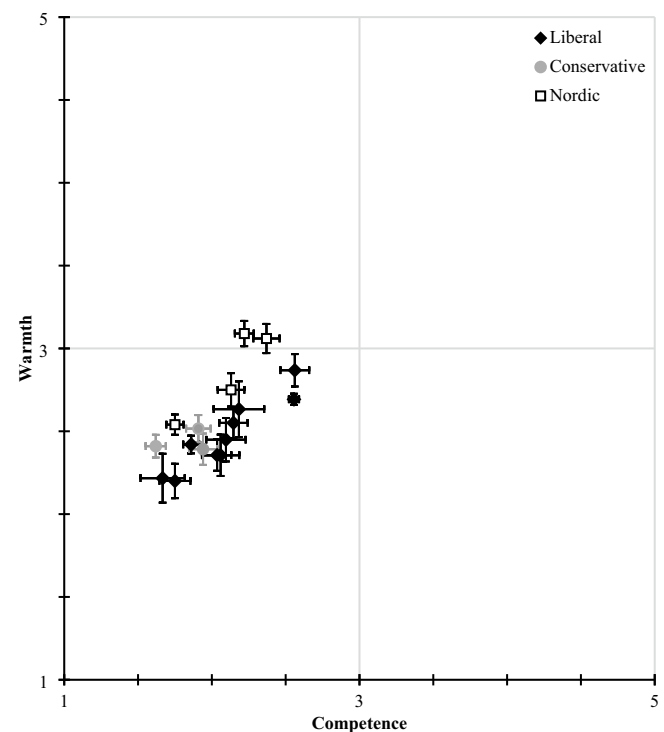
## 3 | RESULTS

### 3.1 | Descriptive statistics

A plot of the raw warmth and competence scores toward welfare recipients as they were reported in the included studies, for each of the 17 studies is presented in Figure 1.

### 3.2 | Hypothesis tests

The cultural stereotype of welfare recipients in countries with Nordic regimes was significantly warmer than the stereotypes in Liberal and



**FIGURE 1** Stereotype content model plot of warmth and competence stereotypes of welfare recipients by country and type of welfare regime. Possible scores range from 1 to 5 on both dimensions, with a score of less than 3 (gray lines) on both dimensions indicating the low warmth, low competence quadrant. Error bars indicate  $\pm 1$  SE

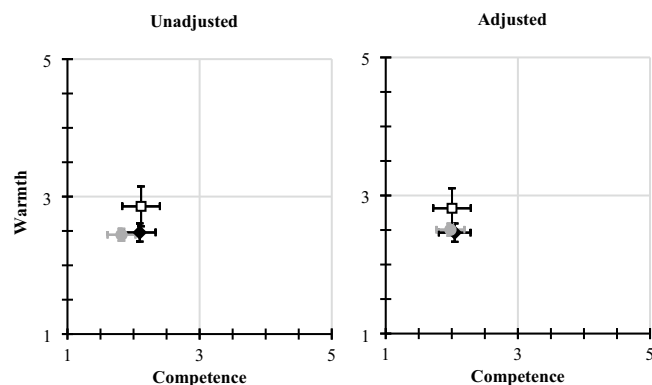
Conservative welfare regimes combined,  $\beta = 0.39$  (95% CI: 0.14, 0.64),  $t(15) = 3.32$ ,  $p = .005$ . Follow-up tests indicated that stereotypes of welfare recipients in Nordic regimes were warmer than Liberal regimes,  $\beta = 0.38$  (95% CI: 0.11, 0.65),  $t(14) = 3.03$ ,  $p = .009$ ; and Conservative regimes,  $\beta = 0.41$  (95% CI: 0.07, 0.76),  $t(14) = 2.61$ ,  $p = .021$ , while the stereotypes in Liberal and Conservative regimes did not differ,  $\beta = 0.04$  (95% CI: -0.26, 0.33),  $t(14) = 0.27$ ,  $p = .788$ . Sensitivity tests (both the permutation test and correcting for regime differences in the warmth ratings of the non-focal social groups) were consistent with these findings (see Supplementary Materials).

The cultural stereotype of the competence of welfare recipients in countries with Liberal regimes did not differ to those from Nordic and Conservative welfare regimes combined,  $\beta = 0.11$  (95% CI: -0.19, 0.41),  $t(15) = 0.76$ ,  $p = .459$ . Follow-up tests indicated that stereotypes of the competence of welfare recipients in Liberal regimes did not differ from Nordic regimes,  $\beta = -0.02$  (95% CI: -0.37, 0.34),  $t(14) = -0.10$ ,  $p = .923$ ; or Conservative regimes,  $\beta = 0.28$  (95% CI: -0.12, 0.67),  $t(14) = 1.50$ ,  $p = .155$ , and that ratings in Nordic and Conservative regimes did not differ,  $\beta = 0.30$  (95% CI: -0.16, 0.75),  $t(14) = 1.38$ ,  $p = .189$ . Again, this same pattern of results, showing no difference in ratings of competence across welfare regimes, was observed in sensitivity tests (permutation test, correcting for significant differences between regimes in their ratings of competence in the other social groups; see Supplementary Materials).

Plots of the regime-level bias-corrected estimates of warmth and competence stereotypes, contextualized against the regime-level unadjusted estimates, are presented in Figure 2.

### 3.3 | Falsification tests

To establish the specificity of significant effects to the hypothesized outcome, the outcomes were switched across models. The cultural



**FIGURE 2** Stereotype content model plot of random-effect estimated warmth and competence stereotypes of welfare recipients by type of welfare regime, unadjusted (left panel) and adjusted (right panel) for cultural bias existing in the ratings of other groups. Adjustment involved correcting for differences in the ratings of rich people, feminists, gay men, students, men, women, housewives, and the unemployed across regions. Error bars indicate 95% CIs from random effects meta-analysis

stereotype of welfare recipients in countries with Nordic compared to Liberal and Conservative welfare regimes did not differ on competence,  $\beta = 0.08$  (95% CI: -0.27, 0.44),  $t(15) = 0.50$ ,  $p = .626$ ,  $R^2_{adj} = -0.06$ . Therefore, the significant effect of a Nordic welfare regime on evaluations was confined to the hypothesized warmth outcome. There was also no evidence that the outcome dimension was miss-specified for the effect of Liberal regimes: Liberal regime countries did not differ from the others in cultural stereotypes of warmth,  $\beta = -0.20$  (95% CI: -0.46, 0.06),  $t(15) = -1.63$ ,  $p = .123$ ,  $R^2_{adj} = 0.10$ .

### 3.4 | Supplementary analyses

The supplementary analyses in the appendices show that classifying studies/countries based on the measures of inequality used in previous SCM research explained substantially less of the between-study variation than the measures of welfare regime.

## 4 | DISCUSSION

### 4.1 | Main results relating to hypothesis testing

The current study compared the stereotypes of welfare recipients in countries with different types of welfare regimes (Esping-Andersen, 1990, 2015): Nordic; Conservative; and Liberal. Our meta-analysis, drawing on the international SCM literature, provided support for Hypothesis 1 that welfare recipients are seen as more warm in Nordic regime countries than they are in countries with Conservative and Liberal regimes. The analyses, however, did not support Hypothesis 2 that welfare recipients would be seen as less competent in countries with Liberal welfare regimes than in countries with Nordic or Conservative welfare regimes. We found no difference in stereotypes of competence across welfare regimes. The current analyses are the first to systematically synthesize cross-national evidence to contrast the stereotypes of welfare recipients in different types of welfare regimes using perceptions of warmth and competence from the SCM.

Our results relating to Hypothesis 1 extend the findings of previous studies that have shown welfare recipients in Nordic regime countries are perceived to be more deserving of support (Aarøe & Petersen, 2014; Larsen, 2007). As such, the study provides further empirical support of the similarity between the SCM warmth dimension and perceptions of deservingness in the welfare literature (Aarøe & Petersen, 2014; Fiske et al., 2007). The current results also have implications for our understanding of social inclusion in Nordic regimes, where it has been argued it is morally unacceptable to exclude individuals high in warmth (Rudert et al., 2017).

In Hypothesis 2, we expected people in Liberal welfare regimes to view welfare recipients as less competent. This was because Liberal welfare regimes target welfare benefits to those in the poorest circumstances and, according to the SCM, such disadvantage and poverty is associated with greater perceptions of incompetence. While



the analysis did not support our prediction, the result is consistent with one previous study that found that welfare recipients in Liberal and Nordic regime countries are perceived as similarly incompetent when a word association task was used (Aarøe & Petersen, 2014). The absence of the hypothesized welfare regime-competence association may reflect differences in what constitutes a welfare recipient across nations. For instance, in the USA “welfare recipients” are narrowly seen as people receiving Temporary Assistance to Needy Families, in Sweden the term “welfare recipients” is more strongly associated with illness than parenting (Lindqvist et al., 2017), while in most countries outside the USA the term is used refer more generally to those receiving income support from government, including those receiving benefits in respect of unemployment (Brown, 2016). Fiske (2018) has also speculated that the warmth of people who are unemployed may vary across social welfare systems.

It is possible that cross-national differences in inequality contribute to the current findings. Esping-Andersen (2015) argues that the countries with Nordic welfare regime are the most equal, those with Liberal regimes the least equal, and that the equality in countries with Conservative regimes falls between these two extremes. Durante, Fiske, et al. (2017) have shown that inequality moderates the association between group socio-economic status (SES) and both warmth and competence. Using a cross-national design, they found that the ratings of competence given to social groups with high status (e.g., rich people) were unrelated to the levels of inequality within countries, whereas low status groups (e.g., poor people) were rated as more incompetent in countries with greater levels of inequality. Ratings of the warmth of high status group were lower in countries with higher levels of inequality, while ratings for the low status group were consistent over countries. While there was a strong correlation between welfare regime and income inequality in our dataset (also see Esping-Andersen, 2015), the current study focused on the warmth and competence ratings of people from a low SES group (welfare recipients). Further research is needed to directly contrast the potentially contribution of inequality and welfare regime type.

## 4.2 | Limitations and future research

Despite its strengths, the analysis of SCM data has some limitations that may influence the interpretation of the current results. Studying welfare recipients with no further specification of circumstances may have masked cross-national differences in the overlap between welfare receipt and other stigmatized characteristics. To address this issue, future studies could consider presenting other attributes of welfare recipients, such as race, that is strongly associated with welfare receipt in countries such as the US (Brown-Iannuzzi et al., 2017). In addition, the majority of studies came from Liberal regime countries. It may be that the public and researchers deem welfare recipients a more important social group in some cultural contexts and finding comparable labels is an ongoing challenge in welfare research (Huber & Paris, 2013). Future research may also

consider cross-national comparisons of specific categories of people who often receive income support (e.g., the unemployed) or specific types of income support benefits (e.g., unemployment benefits).

The present meta-analytic research is descriptive rather than assessing causation with a focus on establishing key differences and similarities in welfare recipient stereotypes across different welfare regimes; future work should consider the mechanisms underlying these differences. Our findings are consistent with the basic premise of the SCM that social structures are associated with stereotypes (Fiske, 2018), but it is less clear whether cultural differences in stereotypes drive social structures, or whether social structures drive stereotypes. SCM data has typically been cross-sectional and the use of longitudinal data on systems that shift toward more Nordic, Conservative, or Liberal policy environments could be one way to examine this relationship.

Another limitation of the current meta-analysis is that many of the included SCM studies had small samples that yield less precise point estimates (see also Durante, Fiske, et al., 2017; Durante et al., 2013; Durante, Tablante, et al., 2017). The study included data from relatively few countries: more than some studies in the cross-national welfare-deservingness literature (e.g., Aarøe & Petersen, 2014) but less than in cross-national comparison of welfare attitudes (e.g., Blekesaune & Quadagno, 2003) and other SCM meta-analyses (Durante, Fiske, et al., 2017). We relied on published SCM research and could not control the countries where welfare recipients had been studied. Given the data limitations, caution is warranted when interpreting the null effects in meta-regression, because of the possibility that the power to detect large effects was low (Borenstein et al., 2009).

A final limitation to note is that we needed to impute the variance for a number of estimates. We made our best efforts to contact authors of all papers and only imputed data when told that the data was no longer available, when our request was refused, or when no response was received. Our choice to impute standard deviations and then calculate standard errors preserves the fact that larger studies tend to have more precise estimates of the population parameters.

## 4.3 | Policy implications

The social welfare system is an important structural aspect of society. The current cross-national meta-regression is one of a number of studies demonstrating that welfare regime type is associated with cultural stereotypes (Aarøe & Petersen, 2014). The stereotypes identified through the SCM are argued to underpin emotional and behavioral responses to social groups (Cuddy et al., 2007, 2008). Groups low in warmth, such as welfare recipients, are argued to be viewed with contempt and disgust, and are the target of more active harm (harassment) and less helpful supportive behavior. The SCM, therefore, can help explain the experiences of stigmatized group members as they try to navigate their way in society (Hatzenbuehler et al., 2013). At an interpersonal level, the negative biases attached

to welfare receipt may lead to discrimination in hiring decisions (e.g., Schofield et al., 2019). There are also implications at the policy level. Rates of financial support for welfare recipients in countries with Liberal (and Conservative) regimes are lower than in Nordic regime countries (e.g., Roosma et al., 2013), and this coincides with lower perceptions of deservingness (Aarøe & Petersen, 2014). In Australia, the level of financial support provided to unemployed welfare recipients is below the poverty line (Phillips, 2021), but governments have not been receptive to calls to increase payment levels (Mendes, 2015). Future research should investigate this nexus between negative cultural stereotypes and welfare policy.

## CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

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