



Does the COVID-19 pandemic threaten global solidarity? Evidence from Germany



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ABSTRACT

The global COVID-19 pandemic poses challenges to the economy, politics and public health systems of developed and developing countries alike. However, the latter are less well placed to cope with adverse effects. In particular, important advances towards sustainable development might be reversed. Tackling the pandemic and its effects therefore requires global cooperation as well as solidarity in the form of development assistance. Yet, support for development assistance among donor publics might be dampened by individual health-related and economic worries as well as decreasing trust in government during the pandemic. Against this backdrop, we investigate the possible effect of pandemic-induced worries on public support for development assistance as well as the moderating role of moral considerations and trust in government. Drawing on literature on aid attitudes, and using survey data for Germany provided by the COVID-19 Snapshot Monitoring (COSMO) project from April 2020 (N = 1,006), our analyses show that neither health-related nor economic worries are associated with less support for providing development assistance during the first wave of the pandemic. However, we observe a marginal interaction between health-related worries and trust in government in predicting support for development assistance. For those with high levels of trust in government the effect of worry regarding the loss of friends or relatives on support for development assistance is positive, whereas it is close to zero for those with low levels of trust. We conclude that at the peak of the first wave of the pandemic there was little need for concern by policy-makers endorsing development assistance as neither form of worry correlated negatively with public support for development assistance and trust was high. However, when worries recur and trust in government simultaneously decreases, public support for global solidarity may wane.

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1. COVID-19 as a global challenge

COVID-19 poses a global threat to health and economic welfare.¹ Developing countries (i.e., low and lower-middle income countries) are likely to be particularly affected in their efforts to foster sustainable development (OECD, 2020; Oldekop et al., 2020; WHO, 2020). High population density, unhygienic living conditions and a public health system with low capacity may contribute to a particularly rapid spread of the virus and make adverse ramifications for public health more likely than in high-income countries. This is despite the fact that some developing countries are highly successful in tackling the pandemic (e.g., Vietnam) whereas some high-income

countries are not (e.g., USA; Greer et al., 2020). The global economic outlook – including for developing countries – is bleak (ILO, 2020): Lockdowns bring economies to a halt, foreign investment decreases, and international supply chains and tourism are interrupted.

To tackle COVID-19 and its immediate social and economic consequences, bilateral donors and multilateral organisations made a commitment to increase support to developing countries.² These commitments to global solidarity may, however, conflict with the

² For instance, the World Bank (2020) set up programmes to provide rapid support to affected developing countries and the International Monetary Fund (IMF, 2020) approved debt relief for 25 low-income countries. Despite the importance of development assistance during the COVID-19 pandemic, we agree with Oldekop et al. (2020: 2) who argue that “COVID-19 clearly exposes the falsity of assumptions that the global North has all the expertise and solutions, and highlights the critical need for multi-directional learning. Many countries of the global North would have benefited from the experiences of dealing with infectious diseases in the global South [...]. Rather than conventional arguments of development aid from the North being a “win-win” by promoting a more secure world, the North learning from the South would have been good for the South too – by reducing the devastating economic impact transmitted through the economic crisis in the North.”

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donor public's own health-related and economic worries due to real or perceived trade-offs between domestic spending priorities and support for developing countries. As in the 2009 European financial crisis (Heinrich, Kobayashi, & Bryant, 2016), the pandemic might dampen public support for development assistance, which in turn may affect actual policies. Indeed, in times of economic crises aid disbursements decrease (Dang, Knack, & Halsey, 2013; Fuchs, Dreher, & Nunnenkamp, 2014). In addition, measures to curb the spread of the virus may – after an initial “rallying around the flag” (Bol et al., 2020) – evoke distrust and opposition to government policies that could also affect public support for development assistance.

In sum, the pandemic may have serious consequences for global efforts to tackle poverty and to foster sustainable development (e.g., the United Nations' Agenda 2030 and its 17 Sustainable Development Goals), which rely heavily on global cooperation and solidarity (United Nations, 2015).

Against this backdrop, our aim is to disentangle the potential impact of health-related and economic worries induced by COVID-19 on public support for development assistance. We also explore whether moral considerations and trust in government interact with pandemic-induced worries in predicting support for development assistance. We use survey data for Germany collected by the COVID-19 Snapshot Monitoring (COSMO) project in April 2020 (Betsch, Wieler, & Habersaat, 2020). Germany is an illustrative case; it is one of the biggest bilateral donors and responded to the pandemic by initiating emergency foreign aid programmes (BMZ, 2020; Federal Foreign Office, 2020).

Our research note adds findings from a European country to the literature on COVID-19 and public support for development assistance, which has so far focused on the US (Dolan & Nguyen, 2020; Kobayashi, Heinrich, & Bryant, 2021). Overall, we observe, first, that neither health-related nor economic worries are associated with reduced support for development assistance. Second, support is positively associated with trust in government, moral obligations towards developing countries, and the perception of developing countries as being most affected by the pandemic. In contrast, support is negatively associated with holding a view that Official Development Assistance (ODA) should be tied to national self-interest. Third, trust in government marginally interacts with health-related worries in predicting support for development assistance. Among those citizens with high levels of trust, worry about losing friends or relatives has a positive effect on support for development assistance, whereas it has almost no effect among those with low levels of trust.

2. COVID-19-induced worries and public support for development assistance

The rapid spread of COVID-19 and its potentially severe health effects may generate strong health-related worries that affect public support for development assistance. Two scenarios are conceivable on the basis of established theory.

According to *intergroup threat theory* (Rios, Sosa, & Osborn, 2018; Stephan & Stephan, 2017) conflicts regarding the use of scarce financial or medical resources constitute realistic intergroup threat. Resources used to assist developing countries cannot be used domestically, causing people to oppose development assistance. There is a lack of conclusive research on this hypothesis with respect to attitudes to development assistance. However, initial findings for the US are consistent with this assumption: people who contracted COVID-19 report lower support for development assistance (Dolan & Nguyen, 2020).

Competing predictions can be derived from a *common human identity* perspective. Given its global nature, the COVID-19 pandemic may make people aware of what they have in common with

people living in other countries, thereby evoking empathy (Bayram & Holmes, 2020) and blurring the lines of thinking in in-group and out-group categories. Shared perceptions of risk and vulnerability and a corresponding common interest in countering the pandemic could therefore increase support for global cooperation and solidarity in the form of development assistance (West-Oram & Buyx, 2017; for climate change see Reese, 2016). Accordingly, we posit the following alternative hypotheses.

H1a: Higher levels of health-related worries induced by COVID-19 predict lower support for development assistance (realistic intergroup threat scenario).

H1b: Higher levels of health-related worries induced by COVID-19 predict higher support for development assistance (common human identity scenario).

With regard to economic worries, intergroup threat theory provides a convincing perspective (Rios, Sosa, & Osborn, 2018; Stephan & Stephan, 2017). When people are at risk of losing their jobs and are suffering from financial strain, economic worries induced by the pandemic may dampen their support for development assistance as they want their governments to use scarce resources domestically rather than abroad. Indeed, a growing literature supports this hypothesis. Heinrich, Kobayashi and Bryant (2016) report that in the wake of the European financial crisis of 2009 support for development assistance declined when respondents were adversely economically affected by the crisis. US survey data in the context of the COVID-19 pandemic also corroborates this hypothesis. People who lost their jobs due to the pandemic are less supportive of development assistance (Dolan & Nguyen, 2020). Finally, a survey experiment in the context of the COVID-19 pandemic in the US reveals that actively inducing worries regarding the national economy leads to decreased support for development assistance (Kobayashi, Heinrich, & Bryant, 2021).³

By contrast, there is no support we are aware of for a common human identity perspective when it comes to economic rather than health-related worries and their possible effect on support for development assistance. This is further corroborated by studies showing that people in donor countries by and large do not acknowledge tangible benefits of development assistance for their own country (Heinrich, Kobayashi, & Bryant, 2016, 68–69) and want their government to focus on poverty at home (Schneider & Gleser, 2018, 24–25). In sum, it is unlikely that people show higher levels of support for development assistance when they are worried about their own finances. We therefore posit only the following hypothesis regarding the relationship between economic worries and support for development assistance:

H2: Higher levels of economic worries induced by COVID-19 predict lower support for development assistance (realistic intergroup threat scenario).

The possible consequences of health-related and economic worries in the wake of the pandemic should be considered in conjunction with established predictors of public support for development assistance such as individual and national self-interest and moral considerations (Hudson & vanHeerde-Hudson, 2012; Milner & Tingley, 2013). Both turn out to be relevant for explaining aid attitudes (Henson & Lindstrom, 2013; Schneider & Gleser, 2018). Although there are situations in which moral considerations can

³ It must be noted that ODA usually amounts to only a very small part of national budgets. However, the public in many donor countries heavily overestimates the amount of money spent on ODA (e.g., Milner & Tingley, 2013; Schneider & Gleser, 2018; Scotto et al., 2017). Hence, the mentioned conflict is likely to be based primarily on perceived rather than actual trade-offs.

outweigh self-interest (e.g., Bechtel, Hainmueller & Margalit, 2014), both factors should be included when modelling support for development assistance.

However, moral considerations not only affect political attitudes and behaviour (Bloom, 2013; Kertzer et al., 2014); they also serve as heuristics when coping with uncertainty and threat (Haidt, 2001). Viewing development assistance from a moral angle may offset negative and increase positive effects of pandemic-induced worries on support for development assistance. Hence, we hypothesise that a possible positive effect of health-related worries in the common human-identity scenario increases with higher levels of moral obligation. Correspondingly, feelings of moral obligation should buffer the negative impact of health-related and economic worries in the realistic intergroup threat scenario.⁴ This leads to the following hypotheses:

H3a: The stronger the feelings of moral obligation, the larger the positive (or the smaller the negative) effect of health-related worries on support for development assistance.

H3b: The stronger the feelings of moral obligation, the smaller the negative effect of economic worries on support for development assistance.

Finally, trust in government is crucial in times of a global pandemic. If people share the impression that the government is trustworthy, they are willing to accept personal risks or sacrifices alongside uncertainty over whether beneficial policy outcomes will materialise (Rudolph & Evans, 2005). More generally, stronger trust corresponds to greater support for public policies (Citrin & Stoker, 2018). Because development assistance is remote and hard for the general public to monitor, trust in government may particularly affect attitudes toward it (Bodenstein & Faust, 2017; Paxton & Knack, 2012). In light of an ongoing pandemic, trusting the government may not only predict higher levels of support for development assistance but – from an intergroup threat perspective – reduce possible negative impacts of health-related and economic worries.⁵ From common human identity-perspective, high levels of trust in the government should boost a possible positive effect of health-related worries.⁶ This reasoning leads to the following hypotheses:

Hypothesis 4a: The more people trust the government, the smaller the negative effect (the larger the positive effect) of health-related worries.

Hypothesis 4b: The more people trust the government, the smaller the negative effect of economic worries.

⁴ As we use cross-sectional data instead of a longitudinal or (quasi)-experimental design, we are aware of the possibility that the COVID-19 pandemic is reflected in the answers people give to survey questions regarding moral and self-interest as motives for supporting development assistance. Thus, the reported effects sizes must be treated with caution. Moreover, we can neither control for unobserved heterogeneity by including individual fixed effects nor can we find a suitable and valid instrument that would be partially correlated with our variables of interest but uncorrelated with unobserved heterogeneity. To mitigate any bias this might introduce, and in order to capture at least some heterogeneity across individuals, we introduce an extensive list of control variables. We do this blockwise in order to check whether the coefficients change. However, we cannot find noteworthy changes.

⁵ The Politbarometer surveys on 27 March, 9 April and 24 April 2020 show that about 80% of the German population mentioned the COVID-19 pandemic as the most important problem Germany was currently facing (Forschungsgruppe Wahlen, 2020).

⁶ Again, we cannot rule out that the COVID-19 pandemic affects both worries and trust in government, as trust in government on its part varies with government performance and, more importantly, salience attached to particular issues at a given time (Hetherington & Rudolph, 2008). Thus, once again effect sizes must be treated with caution.

3. Data and methods

We use survey data from the 8th wave of the COVID-19 Snapshot Monitoring (COSMO, 2020; Betsch, Wieler, & Habersaat, 2020) collected in April 2020, shortly after the German government announced its emergency foreign aid programme (BMZ, 2020; Federal Foreign Office, 2020). The COSMO is a repeated cross-sectional survey assessing how the public perceives the pandemic, counter-measures, and their own situation. The 1,006 respondents were drawn randomly from an online access panel using quotas for age and gender as well as federal state.

Similar to Dolan and Nguyen (2020), our *dependent variable* is support for development assistance during the COVID-19 pandemic (“Germany should increase support for developing countries with money and know-how to cope with the corona situation and its consequences”; SUPPORT DEVELOPMENT ASSISTANCE).⁷ The item is measured on a scale ranging from 1 “I do not agree at all” to 7 “I completely agree”.

As *independent variables* we use individual and collective health-related and economic worries evoked by the pandemic.⁸ Individual health-related worries (OWN RISK) are measured by a multiplicative index of the perceived risk of becoming infected with the coronavirus and the assessment of the severity of an infection (De Zwart et al., 2009).⁹ Both items are measured on scales ranging from 1 “not vulnerable at all” and “completely harmless” to 7 “very vulnerable” and “extremely harmful”, respectively. We use a multiplicative measurement because we suppose a particularly strong effect when people perceive a high risk for contracting COVID-19 combined with severe consequences. The product of both items is divided by two, resulting in an index ranging from 0.5 to 24.5, with higher values indicating higher risk. Collective health-related worries about relatives and friends (WORRY LOSS) are measured by the worry of losing a loved one, measured on a scale ranging from 1 “very little worry” to 7 “a lot of worries”. Individual economic worries (WORRY ECONOMY) are measured by an additive index of the worry of losing one’s job and of getting into financial difficulties (Spearman-Brown reliability: 0.62). Collective economic worries are measured by the worry about a recession (WORRY RECESSION).¹⁰ All three economic worry items use the same 7-point scale as above. The additive WORRY ECONOMY index is rescaled to a range from 1 to 7. For all indicators, higher values indicate higher levels of worries.

⁷ As a robustness check, we run all analyses using an alternative dependent variable (“Germany should waive debt repayment to the poorest countries due to the corona situation”; SUPPORT DEBT RELIEF). The item is measured on a 7-point scale ranging from 1 “I do not agree at all” to 7 “I completely agree”. Whereas SUPPORT DEVELOPMENT ASSISTANCE addresses general solidarity with developing countries, SUPPORT DEBT RELIEF more directly captures the willingness to pay for developing countries debts. As Germany is a net payer within the European Union and also among the most important ODA donors, citizens might be more reluctant to support debt relief, in particular because they do not acknowledge immediate benefits.

⁸ We use individual as well as collective health-related worries, as particularly younger people might perceive low individual risk while still perceiving a high collective health risk (e.g., for parents/grandparents). In the same vein, people might not be worried of their own but of the country’s economic situation.

⁹ We use composite measures to gauge relevant constructs if more than one suitable item is available in the survey. This allows for a more precise measurement, is more robust to outliers, and reduces measurement error (see Ansolabehere, Rodden, & Snyder, 2008). In the case of two available items, we inspect the reliability of the measurement using the Spearman-Brown formula. If more than two items are available, we inspect the dimensional structure using principal components analysis and compute Cronbach’s alpha for assessing the reliability. Subsequently, we sum up the raw items and divide the sum by the number of items to obtain an index ranging from 1 to 7, similar to the range of the raw items. As we often only have two items to measure a construct, we consider Spearman-Brown values of 0.6 and above as acceptable. Only to measure OWN RISK do we use a multiplicative index.

¹⁰ We use a single item measurement due to the low reliability of an additive index combining the worry about a recession and the worry that small businesses run out of business (Spearman-Brown reliability 0.5).

Table 1
Descriptive statistics of focal variables.

Variable	Obs.	Mean	SD	Min	Max
SUPPORT DEVELOPMENT ASSISTANCE (Range 1–7)	1006	4.13	1.88	1	7
WORRY ECONOMY (Range 1–7)	968	3.06	1.82	1	7
WORRY RECESSION (Range 1–7)	1006	5.18	1.44	1	7
WORRY LOSS (Range 1–7)	1006	4.29	2.02	1	7
OWN RISK (Range 0.5–24.5)	1006	8.37	5.60	0.5	24.5
SELF-INTEREST (Range 1–7)	1006	3.80	1.96	1	7
TRUST GOVERNMENT (Range 1–7)	1006	4.52	1.58	1	7
MOST AFFECTED (Range 1–7)	1006	4.55	1.76	1	7
MORAL OBLIGATIONS (Range 1–7)	1006	4.15	1.85	1	7

Note: N total = 1,006. The COSMO survey uses a forced-choice format for all items. The missing values for WORRY ECONOMY are due to those not working who did not answer the item on worries related to unemployment. For details on the items we refer to Table 1, for descriptive statistics on the socio-demographic controls to Table 2 in the online appendix.

Our first moderator, MORAL OBLIGATIONS, is measured by the agreement with the statement that Germany is morally obliged to help countries that were more affected by the pandemic (measured on a scale ranging from 1 “I do not agree at all” to 7 “I completely agree”). The second moderator TRUST GOVERNMENT is measured using a 9-item additive index with the sub-dimensions of the government’s competence, benevolence, and integrity (Grimmelikhuijsen & Knies, 2017). Due to a principal component analysis revealing an underlying component as well as high correlations between the three sub-dimensions, we combined the items (Cronbach’s alpha 0.98) and rescaled the resulting index to a range from 1 to 7, with higher values indicating higher levels of trust.

Furthermore, we control for preferences for national SELF-INTEREST and seeing developing countries as being MOST AFFECTED by the pandemic. SELF-INTEREST is measured by the item “Germany should only cooperate with other countries if it directly benefits German interests (e.g., protection of EU’s external borders)”. Seeing developing countries as being MOST AFFECTED by the pandemic may correspond to empathy with the people in such countries and thus higher support for development assistance (Bayram & Holmes, 2020). It is measured by the item “Developing countries are the most affected by the corona-situation”. Both items use a scale ranging from 1 “I do not agree at all” to 7 “I completely agree”.¹¹

To test hypotheses H1a, H1b and H2, i.e. the direct effects of all focal variables, we use OLS regression models. Our estimation equations take the following form:

$$y_i = \alpha + \beta_1 OWN RISK_i + \beta_2 WORRY LOSS_i + \beta_3 WORRY ECONOMY_i + \beta_4 WORRY RECESSION_i + \beta'_{10} X_i + \varepsilon_i$$

y_i represents the outcome SUPPORT DEVELOPMENT ASSISTANCE, the coefficients β_1 to β_4 capture the effects of the pandemic-induced risk and worries, and $\beta'_{10} X_i$ denotes a set of established predictors of attitudes toward development assistance

¹¹ In addition, we include age (in years; AGE), gender (GENDER; reference category: male), education (EDUCATION; reference category: up to 9 years of school education), federal state (STATE; reference category: Baden-Wuerttemberg), and a categorical variable with three levels indicating the respondent’s place of residence’s number of inhabitants (INHABITANTS; reference category: <5,000). Despite in the survey no variable measuring political ideology or partisanship – both important predictors for attitudes towards development assistance (e.g., Bodenstein & Faust, 2017; Dolan & Nguyen, 2020; Milner & Tingley, 2013; Paxton & Knack, 2012; Schneider & Gleser, 2018) – is available, we are confident that by including moral obligations and development-related self-interest we are able to capture the pathway underlying ideology and partisanship. Moreover, the survey does not allow the modelling of the trade-off between using resources at home or abroad. However, we assume that a decrease in support for development assistance is associated with the view that resources would be better used domestically. Future research needs to take into account such trade-offs by including suitable survey items.

and socio-demographic control variables. For the moderator analysis, i.e. testing hypothesis H3a and H3b, our equations take the following form:

$$y_i = \alpha + \beta_1 OWN RISK_i + \beta_2 WORRY LOSS_i + \beta_3 WORRY ECONOMY_i + \beta_4 WORRY RECESSION_i + \beta_5 MORAL OBL_i + \beta_6 OWN RISK_i * MORAL OBL_i + \beta_7 WORRY LOSS_i * MORAL OBL_i + \beta_8 WORRY ECONOMY_i * MORAL OBL_i + \beta_9 WORRY RECESSION_i * MORAL OBL_i + \beta'_{10} X_i + \varepsilon_i$$

To test hypotheses H4 and H4b, we substitute MORAL OBLIGATIONS with TRUST GOVERNMENT. Except for the moderator analysis we present standardised beta coefficients in order to facilitate easier interpretation.

4. Empirical analysis

On average, respondents show moderate support for development assistance (Mean = 4.1; SD = 1.9; see Table 1). They are moderately worried about losing a loved one (WORRY LOSS; Mean: 4.3; SD = 2.0) and are substantially more worried about a recession (WORRY RECESSION: Mean = 5.2; SD = 1.4) than about personal negative economic consequences (WORRY ECONOMY; Mean = 3.1; SD = 1.8). The OWN RISK of getting seriously ill is considered as moderate (Mean = 8.4; SD = 5.6).

Fig. 1 visualises the standardised regression coefficients.¹² All four indicators capturing health-related (OWN RISK, WORRY LOSS) and economic worries (WORRY ECONOMY, WORRY RECESSION) do not have statistically significant effects on support for development assistance. Thus, we reject hypotheses H1a and H1b as well as H2 as our data neither supports the effects suggested by the realistic intergroup threat nor the common human identity perspective.¹³

In line with the aid attitudes literature, MORAL OBLIGATIONS and TRUST GOVERNMENT are significantly and positively associated with support for development assistance. Perceiving developing countries as being MOST AFFECTED by the COVID-19 pandemic

¹² The model was tested for multicollinearity. With variance inflation factors between 1.1 and 3.2 we found no severe multicollinearity. In addition, we found no non-linear effects. Augmented component-plus-residual plots for all variables are available upon request.

¹³ These results are by and large robust to alternating the dependent variable from support for development assistance to support for debt relief to developing countries (see Model 5 in Table 4 and Fig. 1 in the online appendix). However, the coefficient for WORRY RECESSION is negative at the 0.1 level of statistical significance. This tentatively supports hypothesis H1a and indicates that people are less inclined to support debt relief when fearing a recession in Germany. In addition, the standardised coefficients are considerably smaller throughout and TRUST GOVERNMENT is positive but non-significant. The results are also robust to using an ordered probit estimation that takes into account the ordinal scale of the dependent variable (see Table 6, Model 1 in the online appendix).

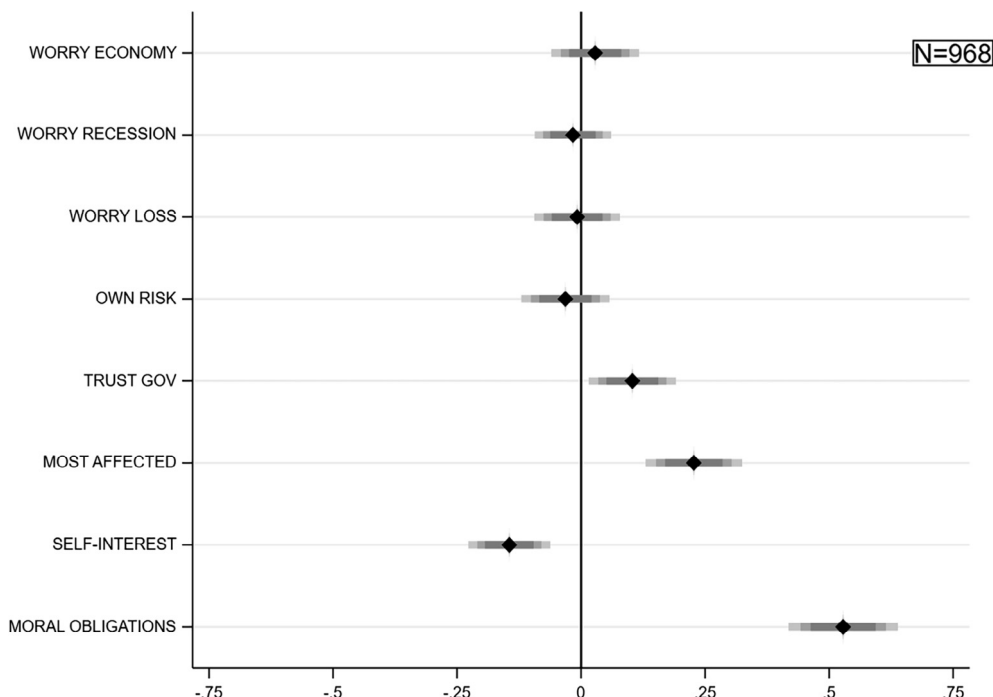


Fig. 1. Regression analysis SUPPORT DEVELOPMENT ASSISTANCE. Note: Standardised beta-coefficients with 95% confidence intervals based on robust standard errors (for details of analysis see Model 5 in Table 3 in the online appendix). The model additionally controls for respondents' level of education, gender, age, state (of residence) and the number of inhabitants of place of residence. Coefficients of control variables omitted.

also increases support for development assistance. By contrast, endorsing national SELF-INTEREST dampens support for development assistance. All coefficients fulfil the 0.05 level of statistical significance.¹⁴

Next, we turn to the moderation analysis, adding interaction terms to the model. We do this blockwise by estimating separate models for the moderating effect of MORAL OBLIGATIONS and TRUST GOVERNMENT (see online appendix Table 5). For moral obligations, none of the four coefficients for the interaction terms between moral obligations and the two indicators for health-related and two indicators for economic worries fulfils the 0.05 or at least 0.1 level of statistical significance (online appendix Table 5, Model 3). Hence, we reject hypotheses H3a and H3b.

With regard to trust in government, a different picture emerges. The interaction between WORRY LOSS and TRUST GOVERNMENT is positive ($b = 0.044$) and marginally significant at the 0.1 level (p -value: 0.072; online appendix Table 5, Model 1). In contrast, the associations between support for development assistance and both indicators of economic worries (WORRY ECONOMY, WORRY RECESSION) as well as the perceived OWN RISK are not moderated by TRUST GOVERNMENT as the interaction terms do not fulfil conventional levels of statistical significance. Fig. 2 visualises the interaction between WORRY LOSS and TRUST GOVERNMENT and reveals that worries regarding losing relatives or friends are not related to support for development assistance at low levels of trust and positively associated with support at high levels. Of course, it must be noted that this finding should be interpreted with caution,

¹⁴ Running the analysis only with the indicators for health-related and economic worries reveals that worries only accounted for a very small proportion of the variance as R^2 adjusted amounts only to 0.007 compared to 0.561 in the full model (see Table 3 in the appendix). The coefficient for WORRY ECONOMY is negative and significant at the 0.05 level. Moreover, the coefficient for WORRY LOSS is positive and fulfils the 0.10 level of statistical significance. However, when controlling for established predictors of support for development assistance and socio-demographics, these small effects vanish. The coefficients of established predictors are stable across the model specifications.

as the confidence intervals cross the horizontal zero line and are rather large for high values of TRUST GOVERNMENT. Thus, we find tentative support for hypothesis H4a, proposing that trust in government increases the positive association between health-related worries and support for development assistance, but discard hypothesis H4b, which proposes that trust offsets negative effects of economic worries.¹⁵

5. Discussion

COVID-19 affects developed as well as developing countries and requires global cooperation and solidarity, including development

¹⁵ When using SUPPORT DEBT RELIEF as the dependent variable, our results remain largely unaltered. With regard to TRUST GOVERNMENT, the interaction term with health-related worries this time fulfils the 0.01 level of statistical significance. Therefore, the effect of WORRY LOSS is again positive at high levels of trust and close to zero at low levels but this time not crossing the horizontal zero line. However, two noteworthy exceptions stand out. First, for MORAL OBLIGATIONS we find a significant interaction with WORRY RECESSION at the 0.05 level of statistical significance (see Table 5, Model 4 in the online appendix). The small negative effect of WORRY RECESSION increases with higher levels of MORAL OBLIGATIONS (see Fig. 2 in the online appendix). Thus, in particular those who feel a moral obligation towards developing countries and at the same time fear a recession in Germany, support debt relief to a lesser extent. While opposing our theoretical argument that moral obligations might buffer the effect of pandemic-induced worries, an alternative interpretation for this finding could be that people despite a moral obligation simply do not consider debt relief for developing countries as an appropriate tool when likely facing a recession at home. Second, the interaction between WORRY ECONOMY and TRUST GOVERNMENT is negative and fulfils the 0.10 significance level (see Table 5, Model 2 in the online appendix). The marginal effect plot in Fig. 3 in the online appendix shows that WORRY ECONOMY has a positive effect when the level of trust is low and a negative effect when trust is high. Again contrary to our theoretical expectations, this implies that for those who trust the government, in particular, economic worries correspond to less support for debt relief, indicating that they want the German government to pay attention to the country's financial position. Since only the confidence interval for trust equaling 1 (low) does not cross the horizontal zero line whereas all others do, this tentative finding must be interpreted with caution. In sum, both of these surprising findings could be a hint that people differentiate between development assistance and debt relief for developing countries.

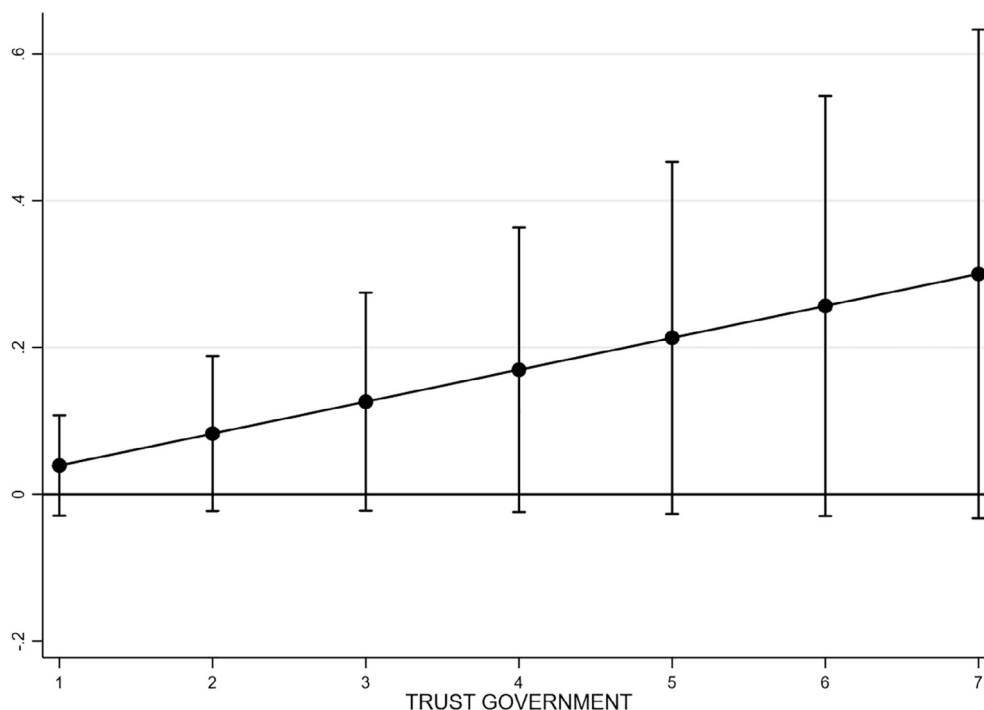


Fig. 2. Moderation analysis WORRY LOSS \times TRUST GOVERNMENT. Note: Unstandardised marginal effect of the interaction of WORRY LOSS with TRUST GOVERNMENT on SUPPORT DEVELOPMENT ASSISTANCE. Y-axis depicts the effect of WORRY LOSS at each level of TRUST GOVERNMENT. 95% confidence intervals based on robust standard errors. The model controls for MOST AFFECTED, MORAL OBLIGATIONS, SELF-INTEREST, respondents' level of education, gender, age, state (of residence) and the number of inhabitants of place of residence. For the full regression table, see Table 5, Model 1, in the online appendix.

assistance. However, ODA donor publics may perceive a trade-off between spending resources domestically or abroad, which may undermine public support for development assistance and, more generally, for efforts towards global sustainable development. Against this backdrop, we investigated (a) whether pandemic-induced health-related and economic worries correspond to more or less support for development assistance and (b) whether effects are moderated by moral obligations and trust in government. Our results indicate that neither form of worry by itself correlates with support for development assistance. Thus, neither hypotheses derived from intergroup threat theory nor from a common human identity perspective are consistent with our findings.

What is more, our results reveal a positive association between trust in government and support for development assistance, and lend tentative support for an interaction between trust in government and health-related worries in predicting higher support for development assistance. As stated in hypothesis H4a, for those displaying high trust in government health-related worries about the loss of friends and relatives go along with higher support for development assistance. This tentatively hints at the possibility that those worried about the health of others close to them are willing to support development assistance to curb the pandemic elsewhere as long as they trust their government. In addition, support is positively associated with perceived moral obligations towards developing countries but, contrary to hypotheses H3a/H3b, moral obligations do not interact with pandemic-related worries. Finally, the analysis of covariates reveals that perceiving developing countries as being most affected by the pandemic is associated with higher levels of support for development assistance and, in contrast, believing that ODA should be tied to national self-interest is associated with lower levels of support.

Importantly, our data were collected at the first peak of the pandemic when public support for the measures initiated by the German government was (still) high (Forschungsgruppe Wahlen, 2020b). If, after a phase of low infection rates, economic conse-

quences of the pandemic become more palpable for a larger share of the population – either in the context of renewed lockdowns or through an ensuing economic recession in the wake of the pandemic – we might observe negative effects on public support for development assistance in Germany. This tendency has already been documented for the US (Dolan & Nguyen, 2020; Kobayashi, Heinrich, & Bryant, 2021). Currently, the reason for the different findings in the US may be a more severe course of the pandemic, a less generous welfare state and less inclusive health system, as well as a government response to the pandemic considered as inadequate by many (Blumenthal et al., 2020; Greer et al., 2020). In other words, the different epidemiological, economic, and institutional setting may, for the moment, buffer negative effects of COVID-19 on public support for development in Germany.

Future research needs to go beyond the US and Germany and include other ODA donor countries. More specifically, scholars need to delve deeper into the psychological mechanisms linking the pandemic with public opinion on development assistance and how opinion is affected by the epidemiological, economic, and institutional context, i.e. social welfare and public health system (Greer et al., 2020). This requires comparative surveys; item batteries measuring how respondents construct in- and out-groups and judge trade-offs between domestic measures and development assistance; and longitudinal or experimental designs to disentangle causality. Moreover, items on general support for development assistance should be utilised as respondents may show more support towards targeted assistance in order to tackle the pandemic (on targeting ODA see Bermeo, 2017) than to development assistance in general.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.worlddev.2020.105356>.

References

- Ansolabehere, S., Rodden, J., & Snyder, J. (2008). The strength of issues: Using multiple measures to gauge preference stability, ideological constraint, and issue voting. *American Political Science Review*, 102(2), 215–232.
- Bayram, A. B., & Holmes, M. (2020). Feeling their pain: Affective empathy and public preferences for foreign development aid. *European Journal of International Relations*, 26(3), 820–850.
- Bechtel, M. M., Hainmueller, J., & Margalit, Y. (2014). Preferences for international redistribution: The divide over the Eurozone bailouts. *American Journal of Political Science*, 58(4), 835–856.
- Bermeo, S. (2017). Aid allocation and targeted development in an increasingly connected world. *International Organization*, 71(4), 735–766.
- Betsch, C., Wieler, L., & Habersaat, K. (2020). Monitoring behavioural insights related to COVID-19. *The Lancet*, 395(10232), 1255–1256.
- Bloom, P.-B.-N. (2013). The public's compass: Moral conviction and political attitudes. *American Politics Research*, 41(6), 937–964.
- Bodenstein, T., & Faust, J. (2017). Who cares? European public opinion on foreign aid and political conditionality. *JCMS Journal of Common Market Studies*, 55(5), 955–973.
- Bol, D., Giani, M., Blais, A., & Loewen, P. J. (2020). The effect of COVID-19 lockdowns on political support: Some good news for democracy?. *European Journal of Political Research*. <https://doi.org/10.1111/1475-6765.12401>. Accepted author manuscript.
- Blumenthal, D., Fowler, E. J., Abrams, M., & Collins, S. R. (2020). COVID-19-implications for the health care system. *The New England Journal of Medicine*, 383(15), 1483–1488.
- BMZ (2020). Ministry of development presents “Corona Emergency Programme”. Federal Ministry for Economic Cooperation and Development (BMZ) press release, 23 April 2020, <http://www.bmz.de/20200423-1>, accessed 13 May 2020.
- Citrin, J., & Stoker, L. (2018). Political trust in a cynical age. *Annual Review of Political Science*, 21, 49–70.
- COSMO (2020). COVID-19 Snapshot Monitoring (COSMO), University of Erfurt, <https://projekte.uni-erfurt.de/cosmo2020/cosmo-analysis.html>
- Dang, H., Knack, S., & Rogers, F. H. (2013). International aid and financial crises in donor countries. *European Journal of Political Economy*, 32, 232–250.
- De Zwart, O., Veldhuijzen, I. K., Elam, G., Aro, A. R., Abraham, T., Bishop, G. D., et al. (2009). Perceived threat, risk perception, and efficacy beliefs related to SARS and other (emerging) infectious diseases: Results of an international survey. *International Journal of Behavioral Medicine*, 16(1), 30–40.
- Dolan, L., & Nguyen, Q. (2020). Partisanship and exposure to COVID-19 predict attitudes toward international financial assistance (16 April 2020). SSRN working paper. <https://dx.doi.org/10.2139/ssrn.3577622>
- Federal Foreign Office (2020). Foreign Minister Maas on COVID-19-related humanitarian aid by the Federal Foreign Office. Federal Foreign Office press release, 27 April 2020, <https://www.auswaertiges-amt.de/de/newsroom/maas-huhi-covid19/2337330>, accessed 28 April 2020.
- Forschungsgruppe Wahlen (2020a). Politbarometer. Most Important Issue (27 March, 8 April, 24 April 2020). Data available at: https://www.forschungsgruppe.de/Umfragen/Politbarometer/Langzeitentwicklung_-_Themen_im_Ueberblick/Politik_II/#Prob11, accessed 13 May 2020.
- Forschungsgruppe Wahlen (2020b). Politbarometer April II 2020 (24 April 2020) Available at: www.forschungsgruppe.de/Umfragen/Politbarometer/Archiv/Politbarometer_2020/April_II_2020 accessed 30 July 2020
- Fuchs, A., Dreher, A., & Nunnenkamp, P. (2014). Determinants of donor generosity: A survey of the aid budget literature. *World Development*, 56, 172–199.
- Greer, S. L., King, E. J., Massard da Fonseca, E., & Peralta-Santos, A. (2020). The comparative politics of COVID-19: The need to understand government responses. *Global Public Health*, 15(9), 1413–1416.
- Grimmelikhuisen, S., & Knies, E. (2017). Validating a scale for citizen trust in government organizations. *International Review of Administrative Sciences*, 83(3), 583–601.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814–834.
- Heinrich, T., Kobayashi, Y., & Bryant, K. A. (2016). Public opinion and foreign aid cuts in economic crises. *World Development*, 77, 66–79.
- Henson, S., & Lindstrom, J. (2013). “A mile wide and an inch deep”? Understanding public support for aid: The case of the United Kingdom. *World Development*, 42, 67–75.
- Hetherington, M. J., & Rudolph, T. J. (2008). Priming, performance, and the dynamics of political trust. *Journal of Politics*, 70(2), 498–512.
- Hudson, D., & vanHeerde-Hudson, J. (2012). ‘A mile wide and an inch deep’: Surveys of public attitudes towards development aid. *International Journal of Development Education and Global Learning*, 4(1), 5–23.
- IMF (2020). IMF Executive Board approves immediate debt relief for 25 countries. International Monetary Fund (IMF) press release 20/151, 13 April 2020. <https://www.imf.org/en/News/Articles/2020/04/13/pr20151-imf-executive-board-approves-immediate-debt-relief-for-25-countries>, accessed 13 May 2020.
- ILO (2020). COVID-19 and the world of work. Second edition, updated estimates and analysis. ILO Monitor, International Labor Organization (ILO), 7 April 2020, https://www.ilo.org/wcmsp5/groups/public/-dgreports/-dcomm/documents/briefingnote/wcms_740877.pdf, accessed 13 May 2020.
- Kertzer, J. D., Powers, K. E., Rathbun, B. C., & Iyer, R. (2014). Moral support: How moral values shape foreign policy attitudes. *Journal of Politics*, 76(3), 825–840.
- Kobayashi, Y., Heinrich, T., & Bryant, K. (2021). Public support for development aid during the COVID-19 pandemic. *World Development*, 138. <https://doi.org/10.1016/j.worlddev.2020.105248>.
- Milner, H. V., & Tingley, D. (2013). Public opinion and foreign aid: A review essay. *International Interactions*, 39(3), 389–401.
- OECD (2020). COVID-19 global pandemic. Joint statement by the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD), 9 April 2020. <https://www.oecd.org/dac/development-assistance-committee/DAC-Joint-Statement-COVID-19.pdf>, accessed 13 May 2020.
- Oldekop, J. A., Horner, R., Hulme, D., et al. (2020). COVID-19 and the case for global development. *World Development*, 134.
- Paxton, P., & Knack, S. (2012). Individual and country-level factors affecting support for foreign aid. *International Political Science Review*, 33(2), 171–192.
- Reese, G. (2016). Common human identity and the path to global climate justice. *Climatic Change*, 134, 521–531.
- Rios, K., Sosa, N., & Osborn, H. (2018). An experimental approach to intergroup threat theory: Manipulations, moderators, and consequences of realistic vs. symbolic threat. *European Review of Social Psychology*, 29(1), 212–255.
- Rudolph, T. J., & Evans, J. (2005). Political trust, ideology, and public support for government spending. *American Journal of Political Science*, 49(3), 660–671.
- Schneider, S. H., & Gleser, S. H. (2018). *Opinion monitor for development policy 2018. Attitudes towards development cooperation and sustainable development*. Bonn: DEval – German Institute for Development Evaluation. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-64947-0>.
- Scotto, T., Reifler, J., Hudson, D., & vanHeerde-Hudson, J. (2017). We spend how much? Misperceptions, innumeracy, and support for the foreign aid in the United States and Great Britain. *Journal of Experimental Political Science*, 4(2), 119–128.
- Stephan, W. G., & Stephan, C. W. (2017). Intergroup threat theory. In Y. Y. Kim (Ed.), *The international encyclopedia of intercultural communication*. Hoboken, NJ: John Wiley & Sons.
- United Nations (2015). Transforming our world: the 2030 Agenda for Sustainable Development, 21 October 2015, A/RES/70/1, <https://sustainabledevelopment.un.org/content/documents/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>, accessed July 30, 2020.
- West-Oram, P., & Buys, A. (2017). Global health solidarity. *Public Health Ethics*, 10(2), 212–224.
- WHO (2020). UN agencies issue urgent call to fund the global emergency supply system to fight COVID-19. Joint statement, World Health Organization (WHO), 20 April 2020, <https://www.who.int/news-room/detail/20-04-2020-un-agencies-issue-urgent-call-to-fund-the-global-emergency-supply-system-to-fight-covid-19>, accessed 13 May 2020.
- World Bank (2020). World Bank/IMF Spring Meetings 2020: Development Committee Communiqué. World Bank Development Committee Communiqué, 17 April 2020, <https://www.worldbank.org/en/news/press-release/2020/04/17/world-bankimf-spring-meetings-2020-development-committee-communiqué>, accessed 13 May 2020.