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## Perceived Distributive Fairness of European Transfer Payments and EU-Taxes in Austria, the Czech Republic, and the United Kingdom

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The present research compared a distributive fairness model of EU transfer payments (Hartner, Rechberger, Kirchler, & Wenzel, 2011) between three countries: Austria, the Czech Republic, and the UK. The model postulates an interplay between EU-tax compliance, distributive fairness, outcome favorability as well as national and European identification. Results across countries showed that EU-tax compliance was positively related to distributive justice, which was in turn related to outcome favorability and identification. National identifiers perceived EU membership as unfavorable in financial and sociopolitical terms, and thus considered the transfer payments as less fair. Dual identifiers perceived the socio-political outcomes as more favorable, and thus evaluated the transfer payments as fairer. Although the basic structure of the model was valid across all three countries, two country-specific results were found. First, in the UK individual tax paying behavior was influenced by outcome favorability, whereas in Austria and the Czech Republic this relationship was mediated via distributive fairness. Second, in the Austrian sample, the differentiation between patriots and nationalists proved fruitful since nationalists considered the EU transfer payments as unfair, unlike patriots. In the UK and the Czech Republic the distinction between nationalists and patriots did not add any further information.

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#### INTRODUCTION

The implementation of a direct tax to the European Union (EU) has been repeatedly discussed by politicians. The former EU commissioner for taxes, László Kovács, for instance, favors a direct tax, arguing for the importance of a secured and autonomous EU budget, independent of yearly complex and challenging budget negotiations between increasingly more member states with competitive interests (*Netzeitung*, 2006). This suggestion raises the question of whether EU citizens are willing to comply with such a direct EU-tax.

Tax compliance is defined "in terms of complying with the spirit as well as with the letter of the law" (James & Alley, 2002, p. 31). It not only refers to aspects of legality or illegality of taxpayers' filing behavior but also includes the willingness to comply with the spirit of tax law. Regarding EU-taxes, compliance can be conceptualised on an individual as well as a national level. While national taxes are paid directly by taxpayers to the respective national authorities, EU-taxation is organised differently. EU-taxation is organised such that, first, member states collect taxes from their citizens, and subsequently the member states remit their negotiated contributions to the EU. Contributions are based on the countries' gross national income, collected value added tax, and custom revenues (European Commission, 2008). In the current article, compliance with individual and collective EU-taxation will be investigated in order to relate the situation at present (i.e. nations contributing collectively) with the idea raised for the future (i.e. individuals paying a direct EU-tax).

Hartner, Rechberger, Kirchler, and Wenzel (2011) formulated and tested a distributive fairness model of EU transfer payments among British tax payers. The model postulates that national and European identification is associated with EU-tax compliance via the intervening effects of outcome favorability and distributive fairness. The aim of the current research is to compare the model across several EU member states and to investigate the relationship of perceived distributive fairness of EU transfer payments to (intended) tax compliance in Austria, the Czech Republic, and the UK. Because of the heterogeneity of financial outcome favorability within the EU, testing the model in a heterogeneous set of countries and, thus, from various perspectives is of special practical and theoretical interest and adds to the generalisability of the model.

### The Distributive Fairness Model

The distributive fairness model of EU transfer payments has recently been introduced by Hartner et al. (2011) to explain individual and collective tax compliance. It predicts that acceptance of one's country's EU contributions as well as imagined direct taxes paid by the citizens to the EU are positively associated with distributive fairness perceptions. The model further postu-

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lates that distributive fairness results from financial as well as socio-political outcome favorability. Finally, it assumes that people who strongly identify with the nation evaluate the outcomes of EU membership as less beneficial and, thus, the transfer payments as less fair, whereas people who are strongly identified with both the nation and Europe perceive greater outcome favorability and consequently judge the transfer payments as fairer. In sum, the model suggests that national as well as European identification and socio-political as well as financial outcome favorability have indirect effects on individual and collective tax compliance via the intervening effect of distributive fairness. In the following we will elaborate in more detail on the relationships in the model and their theoretical background.

## Fairness and Outcome Favorability

Depending on their economic wealth, EU member states bear a higher or lower EU-tax burden. The contribution is based on the fairness principle of need which requires that wealthier members contribute more and needier members receive more (Cropanzano & Ambrose, 2001; Deutsch, 1985). The difference in contributions across member states ranges from net-paying countries to net-receiving countries. Net-paying countries contribute a higher budget to the EU than they get back, whereas net-receiving countries receive more from the EU than they pay in to it. Lago-Peñas and Lago-Peñas (2010) have shown the implications of a net-paying versus net-receiving status on tax compliance. They found that tax morale is lower in European regions which contribute more to interregional redistribution than in regions which profit from redistribution.

In addition, EU member states differ with respect to membership duration and size. While some member states founded the EU, others joined only recently. Some states are relatively big in terms of number of inhabitants, geographical size, and economic strength, whereas others are smaller. Considering these aspects, we chose very different member states for our research, namely Austria, the Czech Republic, and the UK. Table 1 gives an overview of key data on the chosen countries. One of the major differences between the three countries is the net-paying or net-receiving status. Austria is a net-payer, whereas the Czech Republic is a net-receiver and the UK has a very particular role with the discount negotiated by their former Prime Minister Margaret Thatcher.

<sup>&</sup>lt;sup>1</sup> In 2008 "net-payers" of the EU were Germany, Italy, France, the Netherlands, Sweden, the United Kingdom, Belgium, Denmark, Austria, Finland, Luxemburg, and Cyprus, whereas "net-receivers" were Greece, Poland, Spain, Portugal, Romania, the Czech Republic, Hungary, Lithuania, Slovakia, Bulgaria, Ireland, Latvia, Estonia, Slovenia, and Malta (European Commission, 2008).

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TABLE 1
Key Facts about Austria, Czech Republic, and the UK

	Austria	Czech Republic	United Kingdom
Entry year in the EU <sup>1</sup>	1995	2004	1973
Geographical size (sq km) <sup>2</sup>	83,872	78,866	242,900
Number of inhabitants (millions) <sup>3,4,5</sup>	8.32	10.38	60.97
Gross domestic product 2009 (billions) <sup>6</sup>	€ 292.13	€ 166.07	€ 1,863.97
Average economic growth from 2000 to 2010 (prognoses) <sup>7</sup>	+1.9%	+4.3%	+1.8%
Economic growth (prognosis for 2009) <sup>8</sup>	+0.6%	+3.6%	-1.0%
Allocations from the EU (total; billions) <sup>9</sup>	€ 1.60	€ 1.72	€ 7.41
Allocations from the EU (per head)	€ 192.37	€ 163.78	€ 121.37
Percentage of total EU budget <sup>9</sup>	1.5%	1.6%	7.0%
Contributions to the EU (total; billions) <sup>9</sup>	€ 2.22	€ 1.17	€ 13.43
British discount (total; billions) <sup>9</sup>	_	_	€ 5.19
Contributions to the EU (per head)	€ 266.83	€ 112.72	€ 220.27
Percentage of country's GDP <sup>9</sup>	0.82%	0.98%	0.66%
Percentage of total EU budget <sup>8,9</sup>	2.0%	1.1%	12.2%
Balance between contributions and allocations (total, billions)	€ -0.6	€ 0.5	€ -6.0
Balance between contributions and allocations (per head)	€ -74,46	€ 51,06	€ -98,90

Note: Numbers are based on: <sup>1</sup> European Commission, 2009; <sup>2</sup> Eurostat, 2009a; <sup>3</sup> Statistik Austria, 2009; <sup>4</sup> Czech Statistical Office, 2009; <sup>5</sup> Office for National Statistics, 2008; <sup>6</sup> Wirtschaftskammern Österreichs, 2008a; <sup>7</sup> Wirtschaftskammern Österreichs, 2008b; <sup>8</sup> Eurostat, 2009b; and <sup>9</sup> European Commission, 2008.

Despite net-payers' financial disadvantages, there are also advantages gained from EU membership, especially in terms of socio-political consequences. Being part of the EU purportedly not only promotes prosperity as well as balanced economic and social development but also facilitates peace and political stability (see European Commission, 2008). The perception of advantages relative to disadvantages is termed "outcome favorability" in social psychology (e.g. Tyler & Blader, 2000). More specifically, outcome favorability refers to "whether one receives a positive rather than a negative result" (Skitka, Winquist, & Hutchinson, 2003, p. 311). To the extent that people are concerned about their own outcomes and well-being it can be assumed that they are more willing to contribute to a collective project such as the EU the more they expect a positive return relative to their contribution, that is, the more they perceive outcomes to be favorable to them (Wenzel, 2002).

In contrast, distributive justice refers to the perception that those outcomes, one's share in benefits and/or burdens, are fair. Distributive fairness

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is considered to play a major part in explaining tax compliance. The fairer the tax burden is perceived, the more people tend to be compliant with the tax law (for a review see Kirchler, 2007; Wenzel, 2003). In the tax literature, distributive fairness is often addressed by differentiating the concepts of exchange fairness, horizontal fairness, and vertical fairness (e.g. Kirchler, 2007; Wenzel, 2003). Exchange fairness is based on equity theory (Adams, 1965; Homans, 1972; Walster, Walster, & Berscheid, 1978) and refers to a fair balance between tax paid and benefits obtained from public goods (e.g. Kim, 2002; Porcano, 1988). Horizontal fairness is based on the equality principle and demands equal treatment of equals. In other words, people compare themselves to people belonging to the same group and want to be treated or taxed in the same way (e.g. Moser, Evans, & Kim, 1995; Dean, Keenan, & Kenney, 1980). Vertical fairness asks for different treatment for different groups. Following this idea, it is considered fair when differentiations are made among taxpayers according to their income, family status, expenses, or other variables (e.g. Torgler, 2002; Skinner & Slemrod, 1985). Thus, differences in outcome favorability are considered as fair under certain circumstances.

Although outcome favorability is conceptually distinct from distributive fairness (e.g. Skitka et al., 2003; Verboon & van Dijke, 2007; Wenzel, 2002), the two concepts are likely to be associated (see Brockner & Wiesenfeld, 1996). People may describe beneficial outcomes as fair so as to justify them, and negative outcomes as unfair in order to lay claim to better outcomes. In the context of taxation (or equivalent contribution systems), the outcomes that people perceive may be considered as one factor entering their calculations of exchange equity, which is the value of outcomes (relative to the outcomes others receive) in relation to contributions made (relative to the contributions of others; e.g. Adams, 1965). We therefore hypothesise that appraisals of outcome favorability will be positively related to (intended) EU-tax compliance; however, outcome favorability will also be related to distributive fairness which will (partially) mediate the effect on EU-tax compliance.

## National Identification and Identification with the European Union

One's country's contributions to the EU and the allocations provided by the EU to one's country are frequently discussed by the media and citizens. They may be compared to other nations' payments and benefits, and judged as fair or unfair. We assume that fairness judgments depend not only on contributions of and allocations to one's own and other countries, but also on national identification and identification with the EU (Wenzel, 2002, 2003, 2007; Murphy, 2005).

National identification can be understood in terms of the social identity approach, which comprises the interconnected theories of self-categorisation (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) and social identity (Tajfel & Turner, 1986). The basic assumption of the social identity approach is that people define themselves not only in terms of individual characteristics, but also in terms of their membership of different groups or social categories.

A widely documented phenomenon when investigating group behavior is the preference for one's own group in relation to other groups, which is commonly referred to as in-group bias or in-group favoritism (e.g. Brewer, 1979, 2007). People tend to evaluate their own group more favorably than other groups. They also cooperate more with their fellow in-group members than with out-group members because, due to their identification with the group, their group goals and needs are perceived as their individual goals and needs (Hewstone, Rubin, & Willis, 2002; Turner, 1982). Tajfel (1982) discusses status protection of the in-group as a reason for this bias. The in-group's higher status (relative to a relevant out-group) provides its members with a positive social identity and satisfies a need for positive self-esteem.

In the current context, in-group bias is expected to occur on a country level. People who identify strongly with their nation may also be more strongly committed to their nation's goals and concerned about maintaining its interests. Consequently, they are likely to evaluate their country's contributions and outcomes through this lens. That is, the higher the national identification the less fair transfer payments are expected to be evaluated. However, in-group favoritism should be reduced when moving from a nationalistic towards a more European perspective. According to the common in-group identity model (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993; Gaertner, Dovidio, Nier, Banker, Ward, Houlette, & Loux, 2000), in-group bias can be reduced by fostering a more inclusive categorical representation. Stressing the communalities between sub-groups, instead of differentiating between them, should therefore reduce in-group favoritism. Thus, identification with the European Union as a higher-order categorisation should be associated with a more positive fairness evaluation of transfer payments. However, there remains a caveat: people showing strong national identification could feel threatened by a re-categorisation into a more global European identity and might fear the loss of their national identity (see Crisp, Stone, & Hall, 2006; Hornsey & Hogg, 2000). A way out of this dilemma could be the focus on dual identification, which allows group members to maintain their national identity while at the same time fostering cooperation and reducing in-group bias through a shared higher-order identity (see Huo, Smith, Tyler, & Lind, 1996).

Caporaso and Kim (2009) showed that EU citizens can have multiple identities of which EU identity is part. In their analyses of Eurobarometer data from 1992 to 2005 they found that most people (46% to 55%) indicated

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dual identification, followed by national identification (38% to 46%), whereas only a small proportion of respondents (3% to 7%) indicated European identification only (which seems to have reached a rather low and stable level in recent years with 3% from 2000 to 2005). For the presentation this means that, rather than treating the two identity levels as completely independent from each other, the focus will instead be on national identification and dual identification.

We hypothesise that dual identification will be directly and positively related to outcome favorability, and indirectly and positively related to distributive fairness, whereas national identification will be directly and negatively related to outcome favorability, and indirectly and negatively related to distributive fairness. Furthermore, we hypothesise that type of identification will not be directly associated with EU-tax compliance, but indirectly through the mediating effects of outcome favorability and distributive fairness.

#### **METHOD**

## Participants and Procedure

Three representative samples of approximately 1,000 respondents each, from Austria, the Czech Republic, and the United Kingdom (UK), completed the online survey "SIT-Tax: European transfer payments" in July and August 2008 (for a detailed description see Hartner, Rechberger, & Kirchler, 2009). Two filter variables ensured that the selection was confined to employed people paying income tax in the country of residence. The market research institute conducting the survey assured representativeness for sociodemographic data such as gender, age, income, etc.

## Measures

In the following, the measures used to test the distributive fairness model are illustrated. The questionnaire was translated from German to English and Czech, and back-translated into the source language by independent translators. All items were presented on 7-point Likert scales ranging from 1 (completely disagree) to 7 (completely agree) and can be found in the Appendix.

National and European Identification. Respondents indicated how much they identified with their nation and with the EU by answering four items each. The two sets of items did not differ in wording but referred either to one's country or the EU. Reliability coefficients as indicated by Cronbach's  $\alpha$  ranged between .82 and .87 for national identification and between .86 and .89 for European identification (see Table 2).

Outcome Favorability. Two dimensions of outcome favorability were assessed: (i) financial outcome favorability regarding the transfer payments (one item) and (ii) socio-political outcome favorability in terms of benefits from the (long-term) social, political, and economic consequences of EU membership (three items). Internal consistencies of the socio-political outcome favorability measures were satisfactory for all three subsamples ( $\alpha s = .96$  for the Austrian sample, .93 for the British sample, and .89 for the Czech sample).

Distributive Fairness Perception of Transfer Payments. The four items measuring perceived fairness of transfer payments focused on both national contributions to the EU and allocations from the EU. Fairness was measured broadly, aiming to include all aspects of fairness. Internal consistencies were appropriate for all three subsamples, ranging between .89 and .93 (see Table 2).

*EU-Tax Compliance*. We distinguished two forms of EU-tax compliance: (i) collective EU-tax compliance and (ii) individual EU-tax compliance. The *collective EU-tax compliance* was measured with two items and encompassed the willingness to pay on a collective or national level; i.e. whether the nation and its citizens would feel morally obliged to pay the EU contributions. Cronbach's αs were .87 (Austria, the Czech Republic) and .91 (the UK).

Individual EU-tax compliance was measured with three items and deals with tax payments made directly to the EU instead of payment to national tax authorities who remit the country's contribution as the member state. A scenario technique was used to assess acceptance of direct taxes. This was necessary as direct EU-taxes are under discussion but are not yet realised in practice. For intended individual tax compliance, internal consistencies were .83 (Austria), .86 (the Czech Republic), and .92 (the UK), respectively.

### **RESULTS**

## **Descriptive Results**

Means, standard deviations, and correlations are provided in Table 2. A multivariate analysis of variance (MANOVA) revealed a significant effect of respondents' country, F(14, 5808) = 83.29, p < .001. In fact, national differences were found among all study variables. To determine which countries differed for a given variable, post-hoc analysis on the omnibus MANOVA was conducted calculating the Scheffé F-statistic for pairwise comparisons. The differences between countries are detailed in Table 2.

TABLE 2
ans. Standard Deviations, Internal Consistencies, and Correlations between Scale:

Means, Standard Deviations, Internal Consistencies, and Correlations between Scales	ard Deviati	ons, Inter	nal Cons	istencies,	and Correla	ations betw	een Scales		
Austria	M	SD	α	2	85	4	5	9	_
1 National identification <sup>a</sup>	5.61	1.29	.83	.15**	18**	24**	20**	16**	16**
2 European identification <sup>c,d</sup>	3.84	1.51	98.		**09	.21**	.48**	.53**	.16**
3 Financial outcome favorability <sup>b,d</sup>	2.42	1.72	I			.21**	.38**	.28**	.15**
4 Socio-political outcome favorability <sup>a</sup>	4.28	1.91	96.				.64**	**69	.11**
5 Distributive fairness <sup>a</sup>	2.97	1.47	.91					**89.	.24**
6 Collective tax compliance <sup>b,d</sup>	3.19	1.74	.87						.17**
7 Individual tax compliance <sup>a</sup>	2.60	1.62	.83						
Czech Republic	M	SD	α	2	3	4	5	9	7
1 National identification	5.45	1.29	.82	.17**	16**	*40.	.04	*/0.	03
2 European identification	3.89	1.33	.82		.11**	**74.	.38**	.39**	.12**
	4.41	1.70	I			.33**	.33**	.22**	.13**
4 Socio-political outcome favorability	4.57	1.50	68.				.53**	.54**	*40.
5 Distributive fairness	3.93	1.25	68.					.51**	.13**
6 Collective tax compliance	4.07	1.60	.85						.11**
7 Individual tax compliance	3.65	1.84	98.						
United Kingdom	M	SD	α	2	3	4	5	9	7
1 National identification	5.17	1.39	.87	*40.	27**	14**	10**	12**	19**
2 European identification	3.47	1.48	68:	1	.25**	.62**	.51**	.55**	.18**
3 Financial outcome favorability	2.61	1.45	I			.37**	.43**	.36**	.32**
4 Socio-political outcome favorability	4.00	1.69	.93				**69	.75**	.30**
5 Distributive fairness	3.25	1.41	.93					.71**	.28**
6 Collective tax compliance	3.33	1.71	.91						.33**
7 Individual tax compliance	3.36	1.88	.92						

Note: <sup>a</sup> mean differences between Austrian, Czech and British respondents, <sup>b</sup> mean differences between Austrian and Czech respondents, <sup>c</sup> mean differences between Austrian and British respondents, <sup>d</sup> mean differences between Czech and British respondents; \*\* p < .01; \*\* p < .05.

## **Preparatory Analyses**

Before testing the model, missing values were substituted by applying imputation techniques. Based on recommendations by Lüdtke, Robitzsch, Trautwein, and Köller (2007), we decided to use NORM (Schafer & Olsen, 1998), a program for multiple imputations, to complete the data. All further statistical analyses were conducted with the imputed data.

Following previous research (Hartner et al., 2011), cluster analysis was used to identify patterns of identification. In a first step, the eight identification items were entered in a two-step cluster analysis using the log likelihood distance measure to determine the appropriate cluster number. A threecluster solution best represented the data. In a second step, a cluster centroid analysis was conducted using k-means clustering. Consistent with Hartner et al. (2011), the following clusters were identified: (i) national identifiers, (ii) dual identifiers, and (iii) non-identifiers. As is apparent from Table 3, the level of national identification was relatively high among both national and dual identifiers. These types of identification did, however, differ with regard to European identification. Dual identifiers reported much higher levels of European identification than national identifiers. Non-identifiers were characterised by moderate levels of national and European identification. The cluster of EU identifiers, i.e. people identifying with the EU but not with the nation, was not found empirically. This result is in accordance with the Eurobarometer studies (Caporaso & Kim, 2009) reported in the introduction.

Discriminant function analyses validated the quality of the cluster building, which resulted in 97.1 per cent of correct classifications for the Austrian

TABLE 3
Means and Standard Deviations of National and European Identification among
Countries and Clusters

		Mean (SD)			
Country	Cluster	National identification	European identification		
Austria	National identifiers	6.20 (0.67)	2.14 (0.81)		
	Dual identifiers	5.92 (0.75)	4.83 (0.81)		
	Non-identifiers	3.66 (0.97)	3.29 (1.04)		
Czech Republic	National identifiers	5.75 (0.74)	2.53 (0.77)		
1	Dual identifiers	5.86 (0.74)	4.82 (0.81)		
	Non-identifiers	3.49 (0.94)	3.49 (0.97)		
United Kingdom	National identifiers	5.96 (0.81)	1.86 (0.74)		
	Dual identifiers	5.55 (0.86)	4.59 (0.85)		
	Non-identifiers	3.30 (0.94)	3.05 (1.08)		

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data, 96.8 per cent for the Czech data, and 96.7 per cent for the UK data. Thus, the three clusters were considered as valid representations of national and European identification. For the analyses which follow, the three clusters were recoded into two dummy variables, with the variable "non-identifiers" serving as reference category.

## Structural Analyses

To test the adequacy of the proposed distributive fairness model, structural equation modeling (SEM) with Mplus (version 5, Muthén & Muthén, 1998-2007) was chosen. SEM offers the opportunity to compare alternative models and to thereby examine the pre-eminence of direct versus indirect effects. For this purpose, we specified three competing models. The first model (fullmediation model) contained indirect links from identification to distributive fairness via the intervening effect of outcome favorability and from outcome favorability to tax compliance via the intervening effect of distributive fairness. The second model (partial-mediation model 1) also included direct effects of identification on distributive fairness. The third model (partial-mediation model 2) contained additional direct effects of outcome favorability on tax compliance. All three models assumed that identification is indirectly related to tax compliance via the intervening effects of distributive fairness and outcome favorability, respectively. In order to reduce the risk of incidentally prioritising one of these models over the other, we divided the sample into two random groups  $(n_1 = 1,517, n_2 = 1,395)$ , consisting of roughly equally sized national subsamples. The first sample was used to test the three versions of the hypothesised distributive fairness model of EU transfer payments. The final model was then cross-validated among the second sample.

For the first random sample of Austrian, Czech, and British respondents, the full-mediation model resulted in good fit statistics, with CFI and RMSEA falling within the ranges of their respective cutoff criteria (see Table 4). The partial-mediation model 1 was specified and fit to the data in order to evaluate the relationship between identification and distributive fairness more thoroughly. This model included direct paths between identification and distributive fairness. A  $\chi^2$ -difference test showed that for the first sample of Austrian, British, and Czech respondents, a direct link between the two clusters of identification and distributive fairness improved the model fit  $(\Delta\chi^2 = 19.38, \Delta df = 2, p < .001)$ . The partial-mediation model 2 tested whether the relationship between outcome favorability and tax compliance is only partially mediated by distributive fairness. Again, the inclusion of the

<sup>&</sup>lt;sup>2</sup> For CFI, a cutoff value close to .95 or greater (Hu & Bentler, 1999) and for RMSEA, values of .08 and smaller indicate a good model fit between the hypothesised model and the observed data (Byrne, 2001; Reinecke, 2005).

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TABLE 4
Model Fit Indices of the Structural Equation Models

	$\chi^2$	df	CFI	RMSEA
Model specification ( $n_I = 1,517$ )				
Full-mediation model	563.69	81	.97	.06
Partial-mediation model 1	544.31	79	.97	.06
Partial-mediation model 2	262.81	75	.99	.04
Model validation $(n_2 = 1,395)$				
Partial-mediation model 2	222.12	75	.99	.04
Cross-validation $(n = 2,912)$				
Fixed factor loadings	500.57	166	.99	.04
Fixed structural paths	528.12	181	.99	.04
Multi-group analyses based on partial-mediation mod	del 2 (n = 2,9	12)		
M1 (Regression weights constrained to be equal)	1468.93	289	.96	.07
M2 (Regression weights set free)	938.73	257	.98	.05
M3 (Final model)	955.08	272	.98	.05

Note: CFI = comparative goodness-of-fit index; RMSEA = root mean square error of approximation.

direct path led to a significant improvement in model fit ( $\Delta \chi^2 = 281.50$ ,  $\Delta df = 4$ , p < .001). Consequently, the partial-mediation model 2 was preferred over the initial full-mediation model as well as the partial-mediation model 1 because of its statistical superiority.

In a next step we cross-validated the partial-mediation model 2 for the second sample. For this subsample, fit indices were also in support of the model ( $\chi^2(75) = 222.12$ , CFI = .99, RMSEA = .04). To test whether the two randomly selected samples differed in model fit, we conducted a multiple group analysis. First, a model was fit to the data that allowed structural estimates to vary freely in both samples, but constrained factor loadings to be equal ( $\chi^2(166) = 500.573$ , CFI = .99, RMSEA = .04). The fit statistics of this model served as reference point for model comparison. Second, structural paths and covariances between latent variables were constrained to be equal for both subsamples. This constrained model fit the data slightly worse than the reference model ( $\Delta \chi^2(15) = 27.55$ , p < .05), suggesting that there were minor differences between the two randomly selected samples. An iterative investigation of the regression weights showed that only the path between financial outcome favorability and distributive fairness differed among the samples. Although slightly different in size, the relationship pointed in the same direction (sample 1: B = .19, p < .001, sample 2: B = .25, p < .001). Taken together, these findings argue in favor of the robustness of the partialmediation model 2. Therefore, cross-national comparisons were conducted among the full sample of Austrian, Czech, and British respondents.

In the first step of the cross-national comparison, the partial-mediation model 2 was applied to the entire dataset of Austrian, British, and Czech respondents with regression weights being constrained to be equal between the three sub samples. This invariance model (M1, see Table 4) resulted in a good model fit. In order to check whether there were differences in regression weights across the three national sub samples, an alternative model (M2, see Table 4) was calculated with all structural coefficients set free. A  $\chi^2$ -difference test ( $\Delta \chi^2 = 530.20$ ,  $\Delta df = 32$ , p < .001) showed that the alternative model with the free parameters fit the data better than the invariance model, which means that there were significant differences regarding the regression weights across the three nations.

To identify those parameters that varied between subgroups, we checked iteratively which paths of the structural model were invariant across the nations. If invariance was shown, it was tested whether this invariance existed only between two of the countries or between all three of them. This procedure led to a final model (M3) where only those paths which were shown to be invariant across nations were constrained to be equal. A  $\chi^2$ -difference test between M2 and M3 ( $\Delta\chi^2=16.35, \Delta df=15, ns$ ) yielded no significant difference between Model 2 (all regression weights set free) and Model 3, which justifies constraining the respective paths. Figure 1 gives a graphical illustration of the results, indicating the constrained paths, regression coefficients, and  $R^2$  of the latent variables. Model coefficients indicated are unstandardised because unstandardised coefficients consider diverse variance in the groups (i.e. countries) and therefore allow direct comparisons of the absolute differences in parameters (Reinecke, 2005).

In all but one case both forms of EU-tax compliance were positively related to perceived distributive fairness of the transfer payments. The fairer people perceived the transfer payments to be, the more they reported being EU-tax compliant. However, for collective EU-tax compliance this relationship was stronger in Austria and the UK (B = 0.53, p < .001) than in the Czech Republic (B = 0.46, p < .001). In terms of individual tax compliance, the positive relationship with distributive fairness was invariant between Austria and the Czech Republic (B = 0.29, p < .001), but not significant in the UK (B = 0.08, p = .30). Regarding the relationship between individual and collective tax compliance, both forms related to each other more strongly in the UK (B = 0.23, p < .001) than in Austria (B = 0.07, p = .24) or the Czech Republic (B = 0.13, p = .10).

In addition to the relationship between distributive fairness and tax compliance, we found significant direct effects of outcome favorability on tax compliance. First, socio-political outcome favorability was positively related to collective EU-tax compliance in the three countries, with Austrians reporting the weakest association (B = 0.40, p < .001), followed by the Czechs (B = 0.40), P < .001

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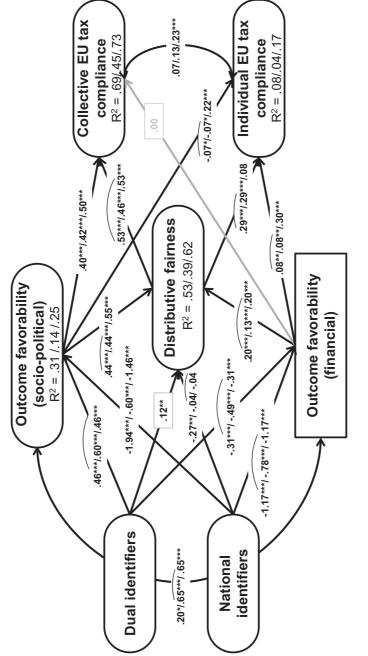


FIGURE 1. Results of SEM model (M3).

Kingdom. Connecting lines between two regression weights mean that paths were fixed in two countries; the box indicates that the path was fixed in all three countries. Unstandardised regression weights are presented in the following order: Austria, Czech Republic, and the United *Notes:* \*\*\* p < .001; \*\* p < .01.

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0.42, p < .001) and the British (B = 0.50, p < .001). Second, socio-political outcome favorability showed divergent relationships to individual EU-tax compliance in the three national samples. While a medium and positive association was found for the UK sample (B = 0.22, p < .001), the association was weak and negative in the Austrian sample and in the Czech sample (B = -0.07, p < .05). Third, financial outcome favorability was positively related to individual EU-tax compliance (A and CZ: B = 0.08, p < .001; UK: B = 0.30, p < .001), but not related to collective EU-tax compliance (B = 0.00, D = .000, for all three samples).

Socio-political outcome favorability showed a positive relationship with distributive fairness that was strongest in the UK (B = 0.55, p < .001) followed by Austria and the Czech Republic (B = 0.44, p < .001). Financial outcome favorability was related more strongly to distributive fairness in Austria and the UK (B = 0.20, p < .001) than in the Czech Republic (B = 0.13, p < .001). Thus, the more beneficial EU membership was perceived to be, the fairer the transfer payments were judged.

Dual identifiers perceived EU membership in socio-political terms as favorable (A and UK: B = 0.46, p < .001; CZ: B = 0.60, p < .001), whereas national identifiers perceived it as unfavorable (A: B = -1.94, p < .001; CZ: B = -0.60, p < .001; UK: B = -1.46, p < .001) compared to people who identified neither with the nation nor with the EU. In terms of financial outcome favorability, a negative link existed in all three countries for both dual identifiers (A and UK: B = -0.31, p < .001; CZ: B = -0.49, p < .001) and national identifiers (A and UK: B = -1.17, p < .001; CZ: B = -0.78, p < .001).

The reported country differences in regression weights showed only one variation in direction so far, the relationship between socio-political outcome favorability and individual tax compliance. However, another interesting difference across countries was observed regarding the relationship between national identifiers and distributive fairness. In the Austrian sample, a negative path from national identifiers to distributive fairness was found (B=-0.27, p < .001), whereas in the British and the Czech samples this link was not significant (B=-0.04, p=.51). By contrast, dual identifiers across all countries perceived the distributive fairness more positively compared to people who identified neither with the nation nor with the EU (B=0.12, p < .001).

Finally, for Austria and the Czech Republic all indirect effects were significant, whereas for the UK the indirect paths leading to individual EU-tax compliance were not significant (see Table 5).

## **Exploratory Analyses**

Due to the unexpected negative link between national identification and distributive fairness in the Austrian sample, we looked at this path more closely. Several authors (Blank, 2003; Kosterman & Feshbach, 1989;

TABLE 5
Unstandardised Indirect Effects of Identification and Outcome Favorability on
Distributive Fairness and Tax Compliance

	Distributive fairness	Collective EU-tax compliance	Individual EU-tax compliance
Austrian sample (n = 998)			
Dual identification	0.14**	0.07**	0.04**
National identification	-1.09***	-0.57***	-0.31***
Socio-political outcome favorability		0.23***	0.13***
Financial outcome favorability		0.11***	0.06***
Czech sample $(n = 1,013)$			
Dual identification	0.20***	0.09**	0.06**
National identification	-0.36***	-0.17***	-0.11***
Socio-political outcome favorability		0.20***	0.13***
Financial outcome favorability		0.06***	0.04***
UK sample (n = 901)			
Dual identification	0.19**	0.10**	0.02
National identification	-1.04***	-0.55***	-0.08
Socio-political outcome favorability		0.29***	0.04
Financial outcome favorability		0.11***	0.02

*Note*: \*\*\* p < .001; \*\* p < .01.

Meier-Pesti & Kirchler, 2003; Müller-Peters, 1998; Mummendey, Klink, & Brown, 2001) define national identification as a two-dimensional construct which encompasses "patriotism" as well as "nationalism". Patriotism is part of a positive evaluation of one's own group (i.e. in-group) which results from categorisation and emotional attachment, whereas nationalism goes further and compares one's in-group to other groups (i.e. out-group). People showing nationalistic tendencies position their own nation as superior to other nations which results in out-group derogation. Based on German data, Blank and Schmidt (2003) showed that nationalistic-positive valuation leads to the denigration of out-groups and to anti-Semitism, whereas patriotic-positive valuation leads to a decrease in the rejection of out-groups and a decrease in anti-Semitism. Despite their positive correlation, patriotism and nationalism seem to be distinct concepts. This is in line with the assumption that positive in-group identity does not necessarily imply hostility towards the out-group (e.g. Brewer, 1979).

As the distinction between patriotism and nationalism offers a possible explanation for the inconsistent findings found in this study, we conducted an additional cluster analysis with the subsample of national identifiers. The results yielded two clusters of national identification differing with respect to their orientation towards either the in-group or the out-group. Consequently,

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we obtained one cluster of nationalism and one cluster of patriotism instead of the more general cluster national identification. Patriotism represents those people who positively evaluate their own nation, whereas nationalism refers to those people who emphasise the uniqueness of their own nation compared to other EU countries. Discriminant function analyses assured the quality of the cluster building process with 98.0 per cent of correct classification.

Subsequently, we modified the Austrian model by substituting national identification with nationalism and patriotism, resulting in three exogenous variables (i.e. patriotism, nationalism, and dual identification). The re-calculated model resulted in a good model fit with  $\chi^2(85, n = 998) = 186.43$ , p < .001, CFI = .99, and RMSEA = .04. Similar to the original model, both forms of national identification showed negative relationships with both forms of outcome favorability. Regarding the direct path to distributive fairness, nationalism showed a negative relationship (B = -0.44, p < .001), whereas for patriotism this link was not significant (B = -0.21, p = .09). In the Czech and the UK samples, nationalistic as well as patriotic identification showed no direct relationship with distributive fairness (for nationalism CZ: B = 0.07, p = .50 and UK: B = -0.02, p = .88; for patriotism CZ: B = -0.09, p = .41 and UK: B = -0.04, p = .73).

## DISCUSSION

In line with our assumptions, we found that EU-tax compliance showed a positive relationship with distributive fairness. When payments are perceived as fair, people are more compliant with EU-taxes. This holds true for both forms of EU-tax compliance (i.e. individual direct EU-tax compliance and collective national tax compliance). However, in the UK, the link between distributive fairness and individual tax compliance was only indirect, whereas in the Czech and Austrian samples direct effects were found. Furthermore, distributive fairness has a positive direct relationship with both forms of perceived outcome favorability of the EU (i.e. in financial and socio-political terms). Thus, when people felt that they benefited from EU membership they also considered the transfer payments as more fair. These relations were stronger in Austria and the UK than in the Czech Republic.

Comparing the regression weights of both forms of outcome favorability, it was shown that socio-political outcome favorability was more important than financial outcome favorability for judging distributive fairness. It can be argued that people accept financial contributions to redistribute wealth among a defined group of member states when they also perceive some other advantages from it. Alongside the indirect effect of outcome favorability on tax compliance, direct effects were found. Collective tax compliance was positively associated with socio-political outcome favorabil-

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ity, but not with financial outcome favorability. This held true for all three countries. Individual tax compliance was positively related to financial outcome favorability in all three countries, but to a quite different extent. In UK, the relationship was considerably stronger than in Austria and the Czech Republic. A major difference was obtained for the link between socio-political outcome favorability and individual tax compliance. In Austria and the Czech Republic the link was rather weak and negative, whereas in the UK the link was stronger and positive. This difference is due to the fact that in Austria and the Czech Republic the influence of sociopolitical outcome favorability on individual tax compliance is mostly mediated through distributive fairness, whereas in the UK the indirect effect is much smaller and statistically not significant because of the non-significant link between distributive justice and individual tax compliance. Thus, the British would be more compliant paying their individual taxes directly to the EU when their country benefits from the EU in financial as well as in socio-political terms. In Austria and the Czech Republic, however, both forms of outcome favorability lead to distributive fairness, which in turn strengthened individual tax compliance.

Alongside outcome favorability, identification with the nation and the EU also showed an impact on distributive fairness. People who *highly identify with their nation* but not with the EU perceived the EU membership as unfavorable in financial as well as socio-political terms and, thus, considered the transfer payments as less fair. This indirect effect on distributive fairness varied among the countries: it was stronger in Austria and the UK than in the Czech Republic, which could be due to the fact that the Czech Republic is a net-receiving country while Austria and the UK are net-paying countries. In line with that, both forms of outcome favorability, but in particular financial outcome favorability, were perceived to be higher in the Czech Republic than in Austria and the UK.

A peculiarity in the Austrian sample was a direct negative path from national identifiers to distributive fairness. The national identity literature (e.g. Blank & Schmidt, 2003) distinguishes between the positive pole of *patriotism*, which appreciates one's own nation, and *nationalism*, which in addition devalues other nations. Further analyses of the Austrian data incorporating the proposed distinction of patriotism and nationalism showed that the reported negative link between national identifiers and distributive fairness was due to levels of nationalistic tendencies, whereas it did not apply to patriotic tendencies. It is unclear why this result did not show for the other two countries. In the Czech Republic and the UK the direct path between national identifiers and distributive fairness was not statistically significant even when people were grouped into nationalists and patriots. One possible explanation for this difference could be that Austria joined the EU as net-payer only in 1995, that is, much more recently than the UK. During the

referendum for joining the EU, the net-paying status of Austria in the EU was emphasised in the media as unfair which might have contributed to negative images of the EU particularly in nationalistic circles. In the UK, the decision about joining the EU was taken several years earlier (in 1973) and therefore the net-paying status, or the injustice rhetoric surrounding it, is probably not as salient as for Austrians. Regarding the Czechs, they profit from the transfer payments and thus nationalists might not use the transfer payments to invoke sentiments against the EU.

People highly identifying with both the nation and the EU (dual identifiers) considered membership of the EU as beneficial in socio-political terms, but not in financial terms. This result was obtained in all three countries, even in the Czech Republic, a net-receiving country. Outcome favorability partly mediated the relationship between dual identification and distributive fairness. However, there is also a positive direct link between dual identification and distributive fairness (in all three countries to the same extent). Thus, when controlling for country differences regarding outcome favorability, there seems to be a general positive relationship for dual identification and distributive fairness, which is stable across countries. When highly identified with the EU, people seem to be more in agreement with its programs of egalitarian redistribution and need-based solidarity (see Wenzel, 2004).

Summing up, support for collective EU transfer compliance as well as (hypothetical) individual EU-tax compliance is linked to distributive fairness perception, which in turn is related to different forms of outcome favorability—in particular to socio-political outcome favorability. Furthermore, outcome favorability partly mediates the link between identification and distributive fairness. National identifiers regard the financial as well as the socio-political outcome from the EU as rather unbeneficial, whereas dual identifiers evaluate only the financial outcome as rather unfavorable but the socio-political outcome as favorable. In addition, a positive direct effect from dual identification to distributive fairness was obtained. The results show that identification is relevant to prepare the ground for judging EU membership as favorable and the EU transfer payments as fair. This increases the willingness to pay the national contributions and the acceptance of a direct EU-tax. Although the concept of "EU-tax" might seem quite abstract and theoretical at the current point in time, politicians and economists are discussing it and the more the integration process of the EU progresses, the more likely it is that it might become reality in the future.

A methodological limitation of the current study is the correlative nature of data. As a consequence, causal interpretations have to be treated with caution. This limitation is valid for all one-shot surveys. However, a major strength of the current study is the representative nature of the data and the incorporation of three different countries. This allowed us to compare the results of the distributive fairness model for Austria, the Czech Republic, and the UK.

The present study suggests that politicians should consider measures that improve perceptions of socio-political benefits from EU membership before implementing direct EU-taxes. Based on the results, we argue that the promotion of socio-political outcome favorability is important from various perspectives. On the one hand, socio-political outcome favorability strengthens distributive fairness perception which in turn leads to higher tax honesty. When focusing on socio-political benefits in media or campaigns, people feel they get something in exchange for their payments, which should increase distributive fairness. On the other hand, strengthening socio-political outcome favorability improves EU-tax compliance directly—at least on the collective level. Perceptions of financial outcome favorability might be more difficult to change; because the contributions of member states are based on the principle of need, some member states have to pay more than they get.

A key aim of the present article was to compare the distributive fairness model across countries. Despite minor country-specific peculiarities, it can be said that the basic structure of the model was valid in all three countries investigated irrespective of their position as a net-paying or net-receiving country. Mostly only the strength of the regression weights varied, but not the direction of the relationships. The findings support the model's proposition that distributive justice perceptions are a central factor in processes of tax compliance at the EU level. Only for the British sample did the results suggest that a direct individual EU-tax, instead of country-level contributions, might render justice considerations less relevant and self- or groupinterest in terms of outcome and benefits more directly important. This is a risk that EU policy-makers and legislators may want to consider. The findings also support the model's proposition about the beneficial role of a (dual) EU identity. Identification with the EU appears to imply a greater focus on socio-political benefits that are mostly shared between member states (e.g. peace and stability) as well as a commitment to principles of justice such as a solidarity-based need principle of financial contributions, burdens, and benefits. However, these processes are at risk of being counteracted and undermined by national identities and, in the Austrian case, nationalistic tendencies that seem to elevate national interest above a shared collective interest and cause greater cynicism about the benefits of EU membership and the justice of the European project. Inasmuch as EU citizens are likely to resist attempts to take away their national identity, only the promotion of a dual identity would seem a plausible response in order to achieve a positive attitude towards EU transfer payments and taxes.

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## **APPENDIX**

# Measures of Identity, Outcome Favorability, Fairness, and EU-Tax Compliance

Identity

—National identity:

I am a typical Briton.

When the British are praised, I am pleased.

I feel closely connected to other British people.

I like being British.

The British are different from other EU citizens.

As a Briton, I have little in common with other EU citizens.

-European identity:

I am a typical EU citizen.

When EU citizens are praised, I am pleased.

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I feel closely connected to other EU citizens. I like being an EU citizen.

### Outcome Favorability

—in financial terms:

The UK pays more into the EU than it receives from the EU. [reversed] —in socio-political terms:

The EU should be seen as a good investment for the UK in the long run. In the long run, the UK will benefit from membership of the EU.

Overall, the UK benefits from the political, economic and social consequences of the EU.

#### Distributive Fairness

On balance, the amount of the contributions made by member states to the EU is fair

Compared with the contributions that the UK makes to the EU, the payments it receives from the EU are fair.

Contributions to the EU are distributed fairly among member states.

Payments from the EU are distributed fairly among member states.

### EU-Tax Compliance

—on a collective level:

The UK and its citizens should feel morally obliged to pay their contributions to the EU.

The UK and its citizens should willingly pay their share of money to the EU. —on an individual level:

Scenario: Please put yourself in the following situation:

Imagine there is a direct European tax where part of your income tax is paid directly to the EU, rather than to the UK, and the share of income tax that you pay to the UK is reduced accordingly.

I would capitalise on the "grey areas" of the EU-tax system as much as possible. [reversed]

I would actively seek to minimise the amount of my EU-tax within the existing possibilities. [reversed]

I would look for loopholes in order to reduce the amount of my EU-tax. [reversed]