

# Measurement Equivalence of Nationalism and Constructive Patriotism in the ISSP: 34 Countries in a Comparative Perspective

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Studies on national identity differentiate between nationalistic attitudes and constructive patriotism (CP) as two more specific expressions of national identity and as theoretically two distinct concepts. After a brief discussion of the theoretical literature, the following questions are examined: (1) Can nationalism and CP be empirically identified as two distinct concepts?; (2) Is their meaning fully or partially invariant across countries?; and (3) Is it possible to compare their means across countries? Data from the International Social Survey Program (ISSP) 2003 National Identity Module are utilized to answer these questions in a sample of 34 countries. Items to measure nationalism and CP are chosen based on the literature, and a series of confirmatory factor analyses to test for configural, measurement (metric), and scalar invariance are performed. Full or partial metric invariance is a necessary condition for equivalence of meaning across cultures and for a meaningful comparison of associations with other theoretical constructs. Scalar invariance is a necessary condition for comparison of means across countries. Findings reveal that nationalism and CP emerge as two distinct constructs. However, in some countries, some items that were intended to measure one construct also measure the other construct. Furthermore, configural and metric invariance are found across the full set of 34 countries. Consequently, researchers may now use the ISSP data to study relationships among nationalism, CP, and other theoretical constructs across these nations. However, the analysis did not support scalar invariance, making it problematic for comparing the means of nationalism and CP across countries.

## 1 Introduction

National identity is considered a central concept of group attachment in the modern world. Although global and regional identities such as the European Union are becoming increasingly relevant, nations are still the core of individuals' social identities (Hjerm 2001). Attachment of group members toward their country is expressed by a sense of belonging, love, loyalty, pride, and care toward the group and land (Bar-Tal 1997, 246). However, the concept of national identity still lacks a distinct and uncontroversial definition. This makes comparative research on national identity problematic.

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National identity reflects different aspects of an individual's relationship toward his or her nation. In general, what it describes is the intensity of feelings and closeness toward one's own nation (Blank, Schmidt, and Westle 2001). Previously, empirical work has treated it as a one-dimensional construct<sup>1</sup>. However, a few studies have argued that national identity is two-dimensional (e.g., Curti 1946; Adorno et al. 1950; Morray 1959; Sommerville 1981). What these studies have in common is that they distinguish between two types or forms of national attachment, each one differing in the conception of how the relation between the individual and the nation is structured. They consider one aspect of national identity as blind, militaristic, ignorant, obedient, or irrational and the other as genuine, constructive, critical, civic, reasonable, and disobedient. Building on these studies, scholars in recent years have differentiated between the national attachment of uncritical loyalty and another one, which is based in questioning, constructive criticism, and dissent (see, e.g., Schatz, Staub, and Lavine 1999). The first, negative aspect of national identity has been labeled nationalism, pseudo-patriotism, chauvinism, or blind patriotism and was found to be associated with authoritarianism (see, e.g., Blank 2003). The second has been labeled constructive or positive patriotism (Bar-Tal 1997; Schatz and Staub 1997; Staub 1997). It has also been labeled civic or political national pride based on being proud of the country's political institutions, culture, economy, and social welfare system (Hjerm 1998a, 1998b).

Previous studies have proposed various possibilities to measure national identity, nationalism, and constructive patriotism (CP) and compared these constructs among countries using different data sources, especially the ISSP 1995 National Identity Module. However, these studies have suffered from the absence of a statistical assessment of the necessary conditions to allow such a comparison. Thus, their results are questionable.

Comparing constructs across countries meaningfully requires determining whether the measurement characteristics of the relevant constructs are invariant across nations. Only if such equivalence is established can researchers make meaningful and clearly interpretable cross-national comparisons of the constructs and their associations with other variables (Billiet 2003). As Adcock and Collier (2001) and King et al. (2004) have recently reminded us, measurement equivalence cannot be taken for granted and has to be empirically tested.

The latest release of the ISSP National Identity Module collected in 2003 provides us with a new opportunity to examine the measurement characteristics of national identity and their equivalence across countries. Items measuring nationalism and CP were included in the survey and were administered to representative samples in countries from five continents. In the present study, we selected some of these items to operationalize nationalism and CP that conform to the relevant literature (especially Blank and Schmidt 2003)<sup>2</sup>. This enables us to examine the reliability<sup>3</sup> of the two concepts of national identity and to answer the following questions: (1) Do they empirically emerge as two distinct constructs in different countries? and (2) To what extent are they cross-culturally equivalent? To do this we apply multiple-group confirmatory factor analysis (MGCFA). In sum, the principal aims in this paper are two-fold: first, we explain how measurement invariance should be tested, and second, we investigate how the two concepts of national identity may be best measured in

<sup>1</sup>An analysis of the literature suggests that there has been an ambiguous use of the terms nationalism, national identity, and patriotism.

<sup>2</sup>There is still no distinct and uncontroversial measurement of nationalism and CP. An explanation why we adopt this type of operationalization and evaluate it in this study is given in the next section.

<sup>3</sup>We discuss reliability here in the sense of consistency (Bollen 1989). Bollen describes consistency of responses as a low fluctuation in replies (p. 207).

a cross-national perspective across the set of ISSP nations. Subjecting their measurements to such a test may improve the quality of comparative research on national identity, which thus far has not taken this issue of measurement comparability seriously. Before presenting our study and results, a brief review of the literature is presented to provide the background for our item selection.

## 2 Nationalism and CP

Schatz, Staub, and Lavine (1999) differentiate between blind and constructive patriotism. They describe blind patriotism as “a rigid and inflexible attachment to country, characterized by unquestioning positive evaluation” (p. 153). In contrast, they define CP as “an attachment to country characterized by critical loyalty” (p. 153). The two orientations are indeed patriotic in the sense of positive national identification. However, the blind patriot considers criticism of the state as disloyal, whereas constructive patriots may even criticize the state themselves, if they feel that the state violates their ideology or if they believe the state is mistaken. In an empirical study administered to an undergraduate sample, Schatz, Staub, and Lavine (1999) evaluated these two concepts. By testing the reliability and construct validity of the two types of patriotism, they came to the conclusion that they are indeed two distinct concepts.

When one thinks about patriotism, thoughts of blind loyalty, national chauvinism, uncritical pride, and so on come to mind. However, that is not how CP is defined by the authors. It is conceptualized as a kind of left liberal orientation toward the nation. Following the line of thought of Schatz, Staub, and Lavine (1999), Blank, Schmidt, and Westle (2001) also proposed the consideration of two types of national identity: nationalism and CP. They argued that one should distinguish between them both conceptually and empirically. Nationalism should reflect the idealization of one’s own nation and its history. However, CP (Adorno et al. 1950) is defined as the “love of the country” and attachment to its humanistic and democratic values (i.e., support for “humanistic” government, support for “democratic principles,” support for advanced system of social welfare, etc.). Blank, Schmidt, and Westle expected a positive association between national identification and nationalism. Moreover, a positive relationship was also expected between CP and national identification. Consequently, although the two concepts CP and nationalism are distinct, they expected them to positively correlate with each other. Their analyses revealed that the two constructs were positively correlated as expected in a representative sample of the former East and West Germany.

Kosterman and Feshbach (1989) argue that CP and nationalism (or blind patriotism) represent “functionally different psychological dimensions” (p. 272). However, they also find that the two concepts positively correlate with each other. Interestingly, different studies have found that nationalism is often positively associated with fears of immigrants or “outgroups” (Staub 1989; Raijman et al. 2008): Higher levels of distrust shared by nationalistic individuals point to a fear of a foreign influence and a heightened feeling of threat due to immigrants. By contrast, CP is found to be associated with lower levels of fear from external influences, such as that caused by immigration. Furthermore, patriotic individuals according to these definitions are often in favor of immigration. They value democracy and cultures of other nations and do not idealize their own. Therefore, they exhibit lower levels of fear of foreigners and have a lesser tendency to exclude them.

Smith and Jarkko (2001) differentiated between national pride, CP, and nationalism. Using the ISSP 1995 National Identity Study, they proposed 10 items to measure national pride in specific achievements of the country and five items to measure general national

pride. However, the mean comparison of these constructs across 23 countries was conducted in their study without strict tests of invariance. This procedure is problematic, as will be shown later.

Blank and Schmidt (2003) describe nationalism and CP as more specific expressions of national identity, whereas national identity is the more general concept (see also Bar-Tal 1997; Schatz and Staub 1997). From this point of view, they argue that nationalism is characterized by idealization of the nation; a feeling of national superiority; an uncritical acceptance of national, state, and political authorities; a suppression of ambivalent attitudes toward the nation; an inclination to define one's own group by criteria of descent, race, or cultural affiliation; and derogation of groups not considered to be part of the nation. They propose synonyms to the concept nationalism, such as blind patriotism or chauvinism. By contrast, CP is viewed as having the following aspects: the nation is not idealized, but critically evaluated; support for the system as long as the nation's aims are in accord with humanistic values; support for democratic principles and an advanced social system; rejection of an uncritical acceptance of state authorities; and acceptance of negative nation-related emotions. However, using German panel data, they evidenced some validity problems in the operationalization of the two concepts, as the two factors had low loadings with several indicators (below 0.4). Their conceptualization was criticized by Cohrs (2005) who argued that the criterion-related validity of these constructs is sometimes not supported by the data.

In sum, it seems there is no agreement in the literature on both the conceptualization and the operationalization of national identity in general and of nationalism and CP in particular. This makes cross-cultural comparisons even more difficult since, before deciding whether measurements are invariant across countries, it is necessary to agree on the definition and operationalization of a construct. In this study we are not going to solve this problem. We neither propose an uncontroversial definition of these concepts nor conduct a meta-analysis of the different definitions and operations of national identity. Rather, we propose a possible and reasonable set of items from the ISSP 2003 National Identity Module to operationalize the concepts nationalism and patriotism that is especially in line with the conceptions of Blank and Schmidt (2003) but includes a shortened version of them. The definitions of Blank and Schmidt are reasonable since they contain the minimal set of properties that other researchers would agree constitute each concept. Secondly, this operation was shown to possess construct validity in several countries using the ISSP data (see Raijman et al. 2008). Only those items that were empirically strongly related to the constructs in all countries were chosen. We evaluate their measurement characteristics cross-nationally, subjecting them to strict tests of invariance using a large set of countries.

### 3 Methodology

#### 3.1 Data

The last release of the ISSP National Identity Module collected in 2003 provides us with an opportunity to examine the measurement characteristics of nationalism and patriotism. It collected representative data on both concepts in 34 countries<sup>4</sup>. The countries participating, with a total number of 44,170 respondents who completed the questions on nationalism and patriotism, are as follows: Australia (2183), Austria (1006), Bulgaria (1069), Canada

<sup>4</sup>For further details see [http://www.gesis.org/en/data\\_service/issp/data/2003\\_National\\_Identity\\_II.htm](http://www.gesis.org/en/data_service/issp/data/2003_National_Identity_II.htm)

(1211), Chile (1505), Czech Republic (1276), Denmark (1322), Finland (1379), France (1669), Germany (1287), Great Britain (873), Hungary (1021), Ireland (1065), Israel (1218), Japan (1102), Latvia (1000), Netherlands (1823), New Zealand (1036), Norway (1469), Philippines (1200), Poland (1277), Portugal (1602), Russia (2383), Slovakia (1152), Slovenia (1093), South Africa (2483), South Korea (1315), Spain (1212), Sweden (1186), Switzerland (1037), Taiwan (2016), Uruguay (1108), USA (1216), and Venezuela (1199).

Following previous research (see, e.g., Coenders 2001; Blank and Schmidt 2003), two questions in the ISSP were asked regarding nationalism. These question items refer to the superiority of one's own country and its residents: (1) The world would be a better place if people from other countries were more like the [Country Nationality of the Respondent], and (2) Generally speaking, [Respondent's Country] is a better country than most other countries. The responses were measured on a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). CP was measured in the ISSP based on responses to the questions related to civic or political pride on four-point scales ranging from 1 (not proud at all) to 4 (very proud): How proud are you of [Respondent's Country] in each of the following: (a) the way democracy works; (b) its social security system; and (c) its fair and equal treatment of all groups in society. All three indicators measure pride in the democratic institutions, the achievements of the welfare state, and the approval of the principles of solidarity toward the socially weak (Blank 2003). A high score on these items is considered an indicator of a high level of CP<sup>5</sup> (see Table 1).

### 3.2 Testing Invariance

Guaranteeing that the measurement of relevant constructs is invariant is a central concern when applying a theory and an instrument in different countries or over time (Hui and Triandis 1985; Cheung and Rensvold 2000, 2002; Harkness, van de Vijver, and Mohler 2003). If invariance is not tested, it is problematic to interpret and compare results across groups. The reason is that differences in regression coefficients or in means may be due to systematic biases of responses across countries or due to a different understanding of the questions items and not due to "true" differences across the groups (Horn and McArdle 1992; Steenkamp and Baumgartner 1998; Vandenberg and Lance 2000). Findings of no difference between countries do not ensure the absence of "real" differences.

Measurement invariance is defined as "whether or not, under different conditions of observing and studying phenomena, measurement operations yield measures of the same attribute" (Horn and McArdle 1992, 117; see also Rock, Werts, and Flaughner 1978; Hui and Triandis 1985; Steenkamp and Baumgartner 1998, Cheung and Rensvold 2000, 2002; Harkness, van de Vijver, and Mohler 2003; Meuleman and Billiet 2005; Davidov, Schmidt, and Schwartz 2008). Various techniques have been developed to test measurement invariance. MGCFAs (Jöreskog 1971) is among the most powerful. Steenkamp and Baumgartner (1998) provide procedural guidelines to facilitate assessing measurement invariance in cross-national studies with a confirmatory factor analytic approach.

The lowest level of invariance is "configural" invariance (Horn, McArdle, and Mason 1983). Configural invariance requires that the items in the measuring instrument exhibit the same configuration of loadings in each of the different countries (Horn and McArdle 1992).

<sup>5</sup>Other items for measuring nationalism and patriotism that are available in the ISSP exhibited low factor loadings in several single-country CFAs and were consequently excluded from the analysis.

**Table 1** Items measuring nationalism and CP in the ISSP ( $N = 44,170$ )

<i>Item name</i>	<i>Question wording</i>
v21	The world would be a better place if people from other countries were more like the [Country Nationality of Respondent]
v22	Generally speaking, [Respondent's Country] is a better country than most other countries.
v26	How proud are you of [Respondent's Country] in the way democracy works?
v29	How proud are you of [Respondent's Country] in its social security system?
v35	How proud are you of [Respondent's Country] in its fair and equal treatment of all groups in society?

*Note.* Responses to the items v21 and v22 are measured on a five-point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). Responses to the items v26, v29, and v35 are measured on a four-point rating scale ranging from 1 (not proud at all) to 5 (very proud).

That is, the confirmatory factor analysis (CFA) should thus confirm that the same items measure each construct in all countries in the cross-national study. Configural invariance is supported if (a) a single model specifying the items that measure each construct fits the data well, (b) all item loadings are substantial and significant, and (c) the correlations between the factors are less than one. The latter requirement guarantees discriminant validity between the factors (Steenkamp and Baumgartner 1998).

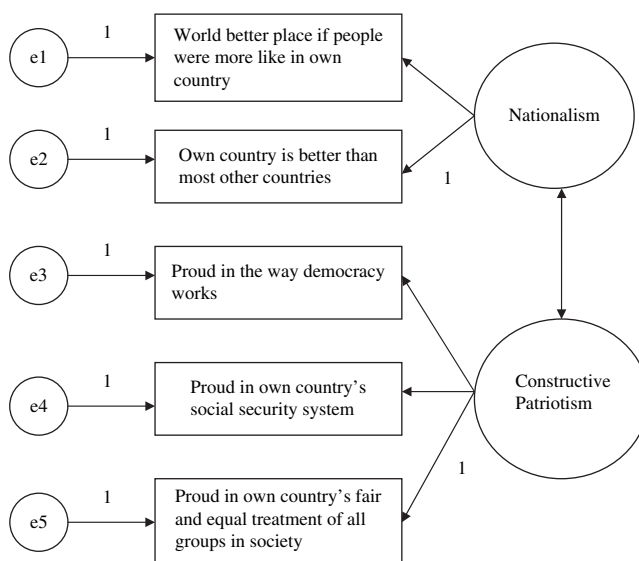
Configural invariance does not ensure that the people in different nations understand the items in the same way. The factor loadings may still be different across countries. The test of the next higher level of invariance, “measurement” or “metric” invariance, requires that the factor loadings between items and constructs are invariant across nations (Rock, Werts, and Flaugher 1978). It is tested by constraining the factor loading of each item on its corresponding construct to be the same across nations. Metric invariance is supported if the model cannot be significantly improved by releasing some of the constraints. However, for cross-cultural comparison to be allowed, it is not necessary that all factor loadings are equal. Several scholars have suggested that it is enough to have two equal factor loadings per construct across countries to allow comparison of effects. They termed it partial metric invariance (Byrne, Shavelson, and Muthén 1989; Steenkamp and Baumgartner 1998).

A third level of invariance is necessary to allow mean comparison of the underlying constructs across countries. This is often a central goal of cross-national research. Such comparisons are meaningful only if “scalar” invariance of the items is established (Meredith 1993; Steenkamp and Baumgartner 1998). Scalar invariance guarantees that cross-country differences in the means of the observed items are a result of differences in the means of their corresponding constructs.

To assess scalar invariance, one constrains the intercepts of the underlying items to be equal across countries. It is supported if the model fit to the data is good and if it cannot be improved by releasing some of the equality constraints.

In sum, meaningful comparison of construct means across countries requires three levels of invariance: configural, metric, and scalar. Only if all three types of invariance are supported can we assume that scores are not biased thus allowing us to confidently carry out mean comparisons. For comparison of effects, however, only the first two levels of invariance are required.

In the analysis of our data we adopt a “bottom-up” test strategy. We start with the weakest level of invariance, configural invariance. Then we sequentially test metric and scalar



Note: e1-e5 are measurement errors of the respective indicators.

**Fig. 1** CFA of nationalism and CP.

invariance. We do this because we wish to establish first whether even weak forms of invariance are empirically incorrect. In the following we first present single-country CFAs of nationalism and CP from the ISSP data. Afterwards, we turn to the invariance tests.

## 4 Results

### 4.1 Single-Country Analyses

We start with 34 separate CFAs for each country (see Fig. 1). Byrne (2001, 175–76) notes the importance of conducting single-group analyses prior to multi-group comparisons. We used the Amos 6.0 software package and the maximum-likelihood procedure (Arbuckle 2005). We computed 34 Pearson (product moment) (unstandardized) covariance matrices, one for each country, as input for estimating the CFAs. Pairwise deletion was used for missing values because, with a relatively low number of missing values as observed here, pairwise deletion is considered the better strategy than listwise and is adequate (see Brown 1994; Schafer and Graham 2002).<sup>6</sup> Table 2 displays the global fit measures (probability of close fit, *Pclose*; root mean square error of approximation, RMSEA; standardized root mean squared residual, SRMR; and the comparative fit index, CFI), model modifications, and the estimated association (covariance, correlation) between nationalism and CP in each of the single-country analyses. The parameters of global fit are used to discern between well-fitting and poorly fitting models (Shevlin and Miles, 1998; Billiet and McClendon 2000). When the RMSEA value is smaller than 0.05 and the *Pclose* value is larger than

<sup>6</sup>Simulations have shown that results obtained using pairwise deletion are robust when there are few (approximately 5%) missing values and that the improvement of newer methods is minimal (Schafer and Graham 2002). In the present analysis there are, on average, 6.75% missing values. Therefore, with this small percentage, the gain from using other techniques for the problem of missing values is not significant. In studies where the number of missing values is larger, other procedures are recommended.



**Table 2** Single-country analyses: Modifications, global fit, covariance, and correlation between nationalism and CP (standard error in parentheses)<sup>a</sup>

Country	Modification <sup>b</sup>	<i>P</i> close	RMSEA	SRMR	CFI	Covariance, <i>N</i> <> <i>CP</i> <sup>a</sup>	Correlation, <i>N</i> <> <i>CP</i> <sup>a</sup>
1. Australia	N → v35	0.83	0.035	0.014	0.994	.077* (.012)	.324
2. Austria	N → v35	0.69	0.035	0.014	0.996	.039 (.021)	.102
3. Bulgaria		0.93	0.009	0.017	0.999	.135* (.025)	.437
4. Canada		0.82	0.032	0.017	0.995	.154* (.018)	.417
5. Chile		0.86	0.032	0.016	0.994	.165* (.020)	.463
6. Czech Republic		0.89	0.028	0.017	0.995	.251* (.046)	.416
7. Denmark		0.52	0.047	0.023	0.987	.160* (.021)	.361
8. Finland	Dropping v21; CP → v22; E2 ↔ E4	0.89	0.000	0.004	1.000	Cov(e2,e4) = .067* (.021)	Cor(e2,e4) = .103
9. France		0.56	0.047	0.030	0.985	.141* (.023)	.220
10. Germany		0.59	0.045	0.025	0.988	.102* (.020)	.196
11. Great Britain	N → v29	0.96	0.000	0.013	1.000	.198* (.028)	.381
12. Hungary	N → v29	0.73	0.032	0.012	0.996	.173* (.023)	.495
13. Ireland	N → v35	0.65	0.039	0.015	0.992	.115* (.023)	.494
14. Israel		0.88	0.023	0.013	0.996	.299* (.031)	.519
15. Japan	N → v29	0.66	0.037	0.016	0.995	.271* (.027)	.877
16. Latvia	N → v26; E2 ↔ E4; E2 ↔ E5	0.77	0.000	0.005	1.000	.243* (.028); Cor(e2,e4) = -.147; Cov(e2,e4) = -.046* (.020); Cor(e2,e5) = -.269 Cov(e2,e5) = -.078* (.021)	.551
17. Netherlands		0.99	0.013	0.012	0.999	.278* (.035)	.274
18. New Zealand		1.00	0.000	0.001	1.000	.220* (.041)	.369
19. Norway	E1 ↔ E5	0.98	0.007	0.014	1.000	.124* (.015); Cor(e1,e5) = .155 Cov(e1,e5) = .091* (.017)	.300
20. Philippines		0.79	0.034	0.015	0.994	.260* (.029)	.472
21. Poland		0.72	0.038	0.021	0.992	.161* (.021)	.422

*Continued*



Table 2 (continued)

Country	Modification <sup>b</sup>	Pclose	RMSEA	SRMR	CFI	Covariance, N <> CP <sup>a</sup>	Correlation, N <> CP <sup>a</sup>
22. Portugal		1.00	0.000	0.007	1.000	.217* (.023)	.353
23. Russia		1.00	0.000	0.007	1.000	.133* (.018)	.332
24. Slovakia	N → v35	0.89	0.020	0.010	0.999	.116* (.018)	.351
25. Slovenia		0.95	0.013	0.015	0.999	.193* (.024)	.428
26. South Africa		1.00	0.010	0.009	1.000	.238* (.020)	.455
27. South Korea	N → v26	1.00	0.000	0.003	1.000	.190* (.019)	.521
28. Spain		0.59	0.044	0.019	0.993	.185* (.020)	.480
29. Sweden	E1 ↔ E5; CP → v21	0.59	0.042	0.019	0.994	.163* (.023); Cor(e1,e5) = .121 Cov(e1,e5) = .070* (.021)	.281
30. Switzerland		0.65	0.040	0.020	0.991	.164* (.027)	.370
31. Taiwan		0.94	0.028	0.015	0.995	.186* (.018)	.606
32. Uruguay		0.72	0.038	0.018	0.994	.194* (.029)	.323
33. USA		0.59	0.044	0.018	0.988	.156* (.019)	.482
34. Venezuela		0.58	0.045	0.018	0.988	.101* (.020)	.328

Note. \* $p < .05$ . → Regression from N or CP to an indicator.

<sup>a</sup>N = Nationalism. For abbreviations of indicators and measurement errors, see Table 1 and Fig. 1.

<sup>b</sup>Empty cells indicate that no modification was conducted.

0.5, one can assume the model has a good fit to the data (Browne and Cudeck 1993). SRMR (value smaller than 0.08) and CFI (value larger than 0.95) provide further indications of an acceptable model fit (Hu and Bentler 1999). Since the sample size is large and the  $p$  value may then reject models with small misspecifications (Saris, Satorra, and Sörbom 1987; Saris and Satorra 1993), we cannot rely on the  $p$  value to select a model.

As Table 2 shows, none of the single-country models can be rejected on the basis of the criteria mentioned in the previous paragraph. For 22 countries, no modification is needed. This implies that the measurement of nationalism and CP produces an acceptable fit to the data in these countries. However, a few modifications are needed to achieve a better fit of the models of 12 countries to the data. Some of the modifications include error correlations and others include cross loadings. These modifications are summarized for each country in Table 2.

In Norway and Sweden, for instance, thinking that the world would be a better place if people from other countries would be more like those from one's own country is associated strongly with pride of equal treatment of all societal groups (it is evidenced in a correlation between the measurement errors of both items). This similar relationship may be a result of the fact that national pride in these countries could be related to pride in the social system, whose character is quite comparable in the two countries.

In several other countries, items originally intended to measure patriotism partly measure nationalism as well, and patriotism items measure partly also nationalism. A negative loading of the first nationalism item (v21) on patriotism is evidenced in Sweden, and this finding may indicate that the covariance between nationalism and patriotism is overestimated in this country. Pride in fair treatment of societal groups in Australia, Austria, Ireland, and Slovakia and pride in the way democracy works in South Korea and in Latvia also partly measure nationalistic attitudes with a positive loading. By contrast, pride in the way the social system works loads negatively on nationalism in Great Britain and Hungary. Apparently, the social security system does not reflect nationalistic pride but rather the contrary in these two countries.

Finland is the only country where one of the items intended to measure nationalism actually measures only patriotism. Thinking that their own country is a better place than other countries correlates with the item assessing the Finnish pride in their social security system. It does not seem to be a good measurement of nationalistic attitudes because it loads only on patriotism. As a result, in Finland we end up with patriotism measured by four indicators and nationalism measured only by one.

All items have moderate to high factor loadings. Most of the standardized loadings are higher than 0.6. The unstandardized factor loadings of the single country analyses are displayed in Table 3a and the standardized factor loadings in Table 3b. Furthermore, one can see that in all countries with the exception of Austria, the covariance between nationalism and CP is positive and significant and is lowest in Australia (.077) and highest in Israel (.299). This positive association confirms findings of previous research (e.g., Kosterman and Feshbach 1989; Blank, Schmidt, and Westle 2001).<sup>7</sup>

<sup>7</sup>The positive correlations between nationalism and CP are moderate or low and probably not large enough to assume that only one concept stands behind the five items. In order to test whether two constructs are really necessary, single-country analyses were conducted again, using only one construct behind the five indicators. In all 34 countries, the model fit deteriorated significantly compared with the previous analyses. The global fit criteria (RMSEA, Pclose, SRMR, and CFI) did not suggest a reasonable fit to the data in any of the countries, indicating that the single-construct model should be rejected.

Table 3 Single-country analyses

	<i>N</i> →		<i>CP</i> →		<i>CP</i> →	<i>N</i> →	<i>N</i> →	<i>N</i> →	<i>CP</i> →	<i>CP</i> →
<i>Country</i>	<i>v</i> 21	<i>v</i> 22	<i>v</i> 26	<i>v</i> 29	<i>v</i> 35	<i>v</i> 26	<i>v</i> 29	<i>v</i> 35	<i>v</i> 21	<i>v</i> 22
(a) Factor loadings on nationalism and CP (unstandardized) (standard error in parentheses) <sup>abc</sup>										
1. Australia	1.299*	1.00	1.088*	.982*	1.00			.398*		
	(.101)		(.113)	(.094)				(.050)		
2. Austria	1.217*	1.00	.951*	.916*	1.00			.189*		
	(.196)		(.103)	(.097)				(.042)		
3. Bulgaria	.860*	1.00	1.378*	1.142*	1.00					
	(.123)		(.209)	(.169)						
4. Canada	.737*	1.00	.902*	.963*	1.00					
	(.099)		(.074)	(.079)						
5. Chile	1.107*	1.00	.725*	1.140*	1.00					
	(.122)		(.054)	(.082)						
6. Czech Republic	1.641*	1.00	1.277*	1.372*	1.00					
	(.257)		(.118)	(.128)						
7. Denmark	.770*	1.00	1.008*	.971*	1.00					
	(.121)		(.087)	(.082)						
8. Finland		1.00	.922*	.717*	1.00					.316*
			(.085)	(.064)						(.064)
9. France	.548*	1.00	1.093*	.624*	1.00					
	(.023)		(.101)	(.058)						
10. Germany	.516*	1.00	1.083*	1.114*	1.00					
	(.024)		(.086)	(.089)						
11. Great Britain	.628*	1.00	.854*	1.182*	1.00		−.133*			
	(.032)		(.077)	(.127)			(.039)			
12. Hungary	.773*	1.00	1.030*	1.388*	1.00		−.127*			
	(.092)		(.103)	(.197)			(.051)			
13. Ireland	.944*	1.00	1.320*	1.409*	1.00			.213*		
	(.109)		(.212)	(.230)				(.069)		
14. Israel	.792*	1.00	.866*	.672*	1.00					
	(.084)		(.076)	(.065)						
15. Japan	1.261*	1.00	.861*	1.978*	1.00		−.758			
	(.113)		(.068)	(.713)			(.516)			
16. Latvia	.831*	1.00	.916*	.843*	1.00	.206*				
	(.068)		(.086)	(.055)		(.056)				
17. Netherlands	.365*	1.00	1.433*	1.124*	1.00					
	(.105)		(.094)	(.071)						
18. New Zealand	1.293*	1.00	1.225*	.990*	1.00					
	(.230)		(.113)	(.090)						
19. Norway	.528*	1.00	.968*	1.293*	1.00					
	(.026)		(.070)	(.096)						
20. Philippines	.801*	1.00	.724*	.960*	1.00					
	(.091)		(.058)	(.072)						
21. Poland	1.015*	1.00	.759*	.699*	1.00					
	(.115)		(.071)	(.066)						
22. Portugal	.643*	1.00	.964*	.951*	1.00					
	(.072)		(.059)	(.058)						
23. Russia	1.383*	1.00	.811*	.953*	1.00					

Continued

Table 3 (continued)

Country	$N \rightarrow$		$N \rightarrow$		$CP \rightarrow$		$CP \rightarrow$		$CP \rightarrow$		$N \rightarrow$		$N \rightarrow$		$N \rightarrow$		$CP \rightarrow$		$CP \rightarrow$	
	$v21$	$v22$	$v26$	$v29$	$v35$	$v26$	$v29$	$v35$	$v21$	$v22$										
	(.156)		(.044)	(.050)																
24. Slovakia	.744*	1.00	1.255*	.928*	1.00				.121*											
	(.079)		(.134)	(.092)					(.035)											
25. Slovenia	.809*	1.00	.914*	.870*	1.00															
	(.100)		(.077)	(.074)																
26. South Africa	1.151*	1.00	1.051*	.910*	1.00															
	(.081)		(.048)	(.042)																
27. South Korea	.910*	1.00	.680*	1.031*	1.00		.186*													
	(.065)		(.074)	(.077)		(.037)														
28. Spain	1.053*	1.00	1.308*	.894*	1.00															
	(.078)		(.095)	(.068)																
29. Sweden	.585*	1.00	.839*	1.048*	1.00				-.167*											
	(.027)		(.060)	(.075)					(.065)											
30. Switzerland	.945*	1.00	.590*	.816*	1.00															
	(.144)		(.066)	(.090)																
31. Taiwan	1.192*	1.00	.896*	.977*	1.00															
	(.107)		(.066)	(.070)																
32. Uruguay	.885*	1.00	.821*	.878*	1.00															
	(.124)		(.062)	(.066)																
33. USA	1.106*	1.00	.822*	.873*	1.00															
	(.130)		(.078)	(.085)																
34. Venezuela	1.302*	1.00	1.235*	1.294*	1.00															
	(.275)		(.088)	(.094)																
(b) Factor loadings on nationalism and CP (standardized) <sup>ac</sup>																				
1. Australia	.715	.695	.630	.481	.460				.252											
2. Austria	.815	.739	.623	.552	.552				.174											
3. Bulgaria	.679	.738	.662	.598	.335															
4. Canada	.567	.898	.642	.605	.589															
5. Chile	.684	.646	.503	.747	.608															
6. Czech Republic	.819	.497	.658	.685	.431															
7. Denmark	.563	.851	.682	.582	.546															
8. Finland			.681	.499	.627													.187		
9. France	.531	1.000	.740	.399	.633															
10. Germany	.537	1.000	.653	.642	.618															
11. Great Britain	.583	1.000	.596	.741	.612		-.153													
12. Hungary	.681	.885	.563	.743	.520		-.170													
13. Ireland	.642	.678	.568	.599	.398				.164											
14. Israel	.630	.758	.588	.448	.692															
15. Japan	.634	.619	.584	1.185	.597		-.595													
16. Latvia	.708	.793	.574	.674	.759	.186														
17. Netherlands	.340	.918	.741	.677	.507															
18. New Zealand	.686	.608	.673	.584	.568															
19. Norway	.479	1.000	.599	.725	.563															
20. Philippines	.626	.758	.515	.681	.687															
21. Poland	.754	.735	.574	.527	.639															
22. Portugal	.640	.946	.671	.701	.634															

Continued

Table 3 (continued)

	<i>N</i> →	<i>N</i> →	<i>CP</i> →	<i>CP</i> →	<i>CP</i> →	<i>N</i> →	<i>N</i> →	<i>N</i> →	<i>CP</i> →	<i>CP</i> →
<i>Country</i>	<i>v21</i>	<i>v22</i>	<i>v26</i>	<i>v29</i>	<i>v35</i>	<i>v26</i>	<i>v29</i>	<i>v35</i>	<i>v21</i>	<i>v22</i>
23. Russia	.852	.607	.558	.710	.699					
24. Slovakia	.675	.896	.720	.572	.500			.127		
25. Slovenia	.644	.828	.658	.585	.610					
26. South Africa	.774	.713	.727	.641	.668					
27. South Korea	.720	.765	.444	.685	.634	.208				
28. Spain	.847	.784	.755	.544	.611					
29. Sweden	.578	1.000	.641	.693	.644				−.088	
30. Switzerland	.728	.723	.510	.537	.692					
31. Taiwan	.640	.607	.527	.616	.578					
32. Uruguay	.705	.816	.641	.637	.675					
33. USA	.653	.728	.597	.504	.606					
34. Venezuela	.595	.564	.657	.725	.586					

*Note.* \**p* < .05. → Regression from *N* or *CP* to an indicator. In Finland, *v21* is not included in the model.  
<sup>a</sup>*N* = Nationalism. For abbreviations of indicators, see Table 1.  
<sup>b</sup>Factor loadings between nationalism and *v22* as well as between constructive patriotism and *v35* were set to 1 for identification purposes.  
<sup>c</sup>Empty cells indicate no direct relation.

4.2 Multiple-Group CFAs and Testing for Invariance

In order to test for configural, metric, and scalar invariance, we conducted a MGCFA. Results of the invariance tests are summarized in Table 4.

To test for different levels of invariance, we inspected the chi-square differences between the models and their global fit measures. Based on the results for the configural invariance model that are reported on the first row of Table 4 (RMSEA = 0.008, *P*<sub>close</sub> = 1.00, SRMR = 0.037, CFI = 0.989), we cannot reject this model (model 1). In other words, we can consider the specification of the items that index nationalism and CP as invariant across the 34 countries.

The second row in Table 4 reports the fit indices of the metric invariance model, which constraints the factor loadings of the indicators of nationalism and CP to be equal across the 34 countries. This model (model 2) also cannot be rejected based on the fit indices (RMSEA = 0.010, *P*<sub>close</sub> = 1.00, SRMR = 0.054, CFI = 0.973) (Chen 2007). The chi-square difference implies a significant increase in this model (*p* < .05). However, as the sample size is very large and even small misspecifications may result in large chi-square differences, we do not apply the chi-square difference test (Cheung and Rensvold 2002). Table 5 summarizes the invariant factor loadings across 34 countries. All factor loadings are substantial and significant.

Table 4 MGCFA: Fit measures of the invariance test

<i>Model</i>	<i>Chi square</i>	<i>Degrees of freedom</i>	<i>P</i> <sub>close</sub>	<i>RMSEA</i>	<i>SRMR</i>	<i>CFI</i>
1. Configural invariance	496	136	1.00	.008	0.037	0.989
2. Full metric invariance	1,156	235	1.00	.010	0.054	0.973
3. Scalar invariance	11,375	400	1.00	.025	0.067	0.675

**Table 5** Unstandardized factor loadings in the metric invariance model

	<i>Nationalism</i>	<i>Patriotism</i>
v21	0.92	
v22	1.00	
v26		0.96
v29		0.95
v35		1.00

*Note.* Empty cells represent no direct relation between the constructs and the indicators. All coefficients are significant ( $p < .01$ ).

Finally, in the third model, we tested whether scalar invariance holds. Scalar invariance is necessary for comparing the means of the constructs nationalism and CP across countries. This step is augmented with mean structure information and is conducted by setting the intercepts of the indicators equal across countries in addition to the factor loadings between the indicators and the constructs. The fit indices suggested that one should reject this more restrictive model. Although Pclose, RMSEA, and SRMR were still acceptable, other fit measures such as CFI (.675) or the NFI (.666) reported a poor fit for this model compared to the metric invariance model (CFI = .973, NFI = .966). As a result, we conclude that the scale does not meet the requirements of scalar invariance.

As previously mentioned, various scholars have argued that partial invariance may be sufficient to allow cross-cultural comparison (Byrne, Shavelson, and Muthén 1989; Steenkamp and Baumgartner 1998). Thus, one can still resort to partial scalar invariance when full scalar invariance is not supported by the data if the intercepts of at least two indicators per construct are equal across countries. I ran three additional models sequentially. In the first model, the equality constraint of the first indicator of patriotism v26 was released across countries; in the second model, the equality constraint of the second indicator of patriotism v29 was released; and finally, in the third model, the equality constraint of the third indicator v35 was released. No equality constraints were released for the nationalism construct because it is measured only by two indicators. According to Steenkamp and Baumgartner (1998), for partial invariance, equality constraints must hold for at least two indicators per construct.

The fit indices of these models suggested that one should reject them. Although Pclose, RMSEA, and SRMR were still acceptable, the CFI suggested a poor fit for the three models (0.727, 0.766, and 0.770, respectively). We therefore conclude that the scale does not meet the requirements of partial scalar invariance. Nevertheless, the possibility remains that one could find partial scalar invariance in some of the countries, thus allowing mean comparison in this subset of countries.

To illustrate, let us consider two countries, Bulgaria and Hungary. After allowing a path from CP to the item which measures the belief that the world would be a better place if people from other countries were more like those from one's own country and another path from nationalism to the item which measures pride of the social security system, we are able to establish configural invariance between Bulgaria and Hungary. Also the metric invariance model for the two countries and the partial scalar invariance model are acceptable (metric invariance model: RMSEA = 0.027, Pclose = 0.993, SRMR = 0.020, CFI = 0.991; partial scalar invariance model: RMSEA = 0.040, Pclose = 0.886, SRMR = 0.022, CFI = 0.976). Thus, means of nationalism and patriotism may be compared across

Bulgaria and Hungary. Such a comparison reveals that people in Bulgaria are significantly ( $p < .05$ ) *more* patriotic than people in Hungary (mean difference 0.72) and significantly ( $p < .05$ ) *less* nationalistic (mean difference 0.11). Examining all possible pairs or triads of countries entails an enormous amount of comparisons that is beyond the scope of this study. Researchers interested in studying certain countries should follow similar procedures of consecutively testing for configural, metric, and scalar invariance in these countries prior to comparing the constructs and their correlates.

In sum, the findings presented indicate that metric invariance holds for the full set of 34 countries. This implies that the meaning of the constructs as measured by the chosen indicators is probably the same in these countries and the constructs' correlates may be compared. Comparing means of nationalism and CP remains problematic. Differences in the constructs are too considerable to allow such a comparison. However, scalar invariance is actually found very seldom across groups.

Lubke and Muthén (2004) criticize the MGCFA approach we use in cases of Likert scales. They argue that an analysis of Likert data under the assumption of multivariate normality may distort the factor structure differently across groups. They propose fitting a model for ordered categorical outcomes. In contrast, De Beuckelaer (2005) demonstrates, in simulation studies, that using Likert scales and skewed data does not significantly affect the probability of incorrect conclusions. To address this criticism, we firstly examined the level of skewness and kurtosis of the indicators across the countries. Skewness and kurtosis of the five items were significant in most countries. They were less pronounced for the items measuring patriotism, but even these were significant in most countries. Thus, to examine whether our results are robust when allowing the use of other estimators that take into account violations of the distributional assumptions of normality, we reanalyzed the models using robust weighted least squares. This estimator performs well with ordinal data, where the normality assumption is violated (Flora and Curran 2004). We used the program Mplus version 3.13 (Muthén and Muthén 2007). The fit indices suggested a reasonable fit for the metric invariance model (CFI = 0.971; TLI = 0.969; RMSEA = 0.08). However, as expected, the scalar invariance model was again rejected (CFI = 0.751; TLI = 0.886; RMSEA = 0.145).

## 5 Discussion and Conclusions

In recent years, students of national identity have distinguished between two concepts that are more specific expressions of national identity: nationalism and CP. In this study we proposed indicators to measure the two concepts and tested their measurement properties across 34 countries with data from the ISSP 2003 National Identity Module. We were interested in answering three questions:

1. Can nationalism and CP be empirically identified as two distinct concepts?
2. Is their meaning fully or partially invariant across countries?
3. Is it possible to compare their means across countries?

Researchers often compare construct means and associations across societies without subjecting their measurement to invariance tests. In this paper, we explained why these tests should be carried out, and we applied them to the constructs nationalism and patriotism to test their comparability in a cross-national perspective across the set of ISSP nations.

We started by conducting separate CFAs for the data from each country. With a few modifications, the items we proposed measured the two constructs in an acceptable



way. Tests of whether only one factor stands behind our indicators yielded a poor fit, suggesting that our constructs nationalism and CP should be modeled separately. Our choice of two constructs, nationalism and CP, to measure national identity depends not only on theoretical considerations: From an empirical point of view, the two concepts display different relations with other substantive variables. Raijman et al. (2008) have demonstrated that people who score highly on nationalism are more inclined to feel threatened by immigrants. By contrast, patriotic individuals tend to have more positive attitudes toward immigrants and other out-groups (Blank and Schmidt 2003). Furthermore, nationalism was found to be associated with authoritarianism (see, e.g., Blank 2003). The two concepts also relate differently to relevant background variables. Raijman et al., (2008) have shown that, in several countries, education and political orientation have a more pronounced effect on nationalism than on CP. Less educated individuals with a rightist political orientation are more inclined to be nationalistic. However, there is no clear pattern in the effect of the two variables on CP.

In the next step we tested for configural, metric, and scalar invariance across the set of ISSP countries. Guaranteeing metric invariance led us to the conclusion that the meaning of nationalism and patriotism is probably the same across the 34 countries. This is a critical condition for the use of the two constructs and their corresponding scales in different countries and for comparing their relations in one country to those in another. In spite of cultural differences, people appear to understand the meaning given to nationalism and patriotism by their indicators in a similar manner. The analyses do not support the scalar invariance of the scale, however. Failure to meet this test indicates that one should not compare means across countries (De Beuckelaer 2005). For researchers studying particular subsets of countries, it may be interesting to examine whether they meet the test, and in cases where they do not, to look into *why* differences are evidenced.

These findings justify employing the proposed scale of nationalism and CP to compare their relations to other theoretical constructs of interest in several countries.<sup>8</sup> For example, one can compare the relations of national attachment to socio-demographic characteristics, behavior, and attitudes. If differences are found in the relationship between national attachment and feelings of threat due to immigration or discrimination of immigrants, evidence of metric invariance makes it legitimate to try to interpret these differences meaningfully. Nationalism and CP may also mediate the effect of socio-demographic variables on attitudes or feelings of threat from immigrants, and differences or similarities in the mediation process may be meaningfully interpreted.

Furthermore, by using the ISSP data from the 1995 National Identity Module and subsequent ISSP modules, one could investigate changes and trends in national attachment in the same country if scalar invariance over time in this country is guaranteed. In such a way one can study changes in the level of these variables in response to external developments such as crimes, political and cultural events, or economic conditions, as well as inspect societal change. Studies of this kind may not be justifiable without first establishing invariance.

Finally, recent studies suggest that when full or partial measurement invariance is not guaranteed, it may still be the case that constructs are equivalent. Saris and Gallhofer (2007, chap. 16) indicate that the test of measurement invariance is too strict and may fail

<sup>8</sup>In comparing different sets of countries or when using different items, the analyses reported here should be replicated. I would also like to mention that the statistical method presented can establish necessary conditions for equivalence of meaning. Cognitive interviews offer a supplementary tool to assess the equivalence of meaning of nationalism and patriotism across countries.

although functional equivalence still holds. In other words, the measurement invariance test could fail due to differences between measurement features of the questions in the different countries although there is cognitive equivalence. For instance, reactions to the method used could cause a nonrandom error which is not accounted for, whereas the link by definition and by intuition is invariant. However, testing for cognitively equivalent measures requires correction for the measurement differences in the model and accounting for this kind of error. Unfortunately, we normally have only one item per indicator, and repeated items to measure the same indicator are seldom used. As long as such measures are not available, establishing invariance should be routinely practiced to maintain meaningful cross-country comparisons.

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