# The Value of Diplomacy: Bilateral Relations and Immigrant Well-Being

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**Abstract**

This paper attempts to establish the value of good relationships between countries by considering their effect on a group of individuals who are arguably intimately affected by them: immigrants. We appeal to an index of conflict/cooperation which is calculated as an annual weighted sum of news items between two countries. This index is matched to a sample of immigrants to Germany in the SOEP data. The index of bilateral relations thus exhibits both time-series and cross-section variation. Good relations are positively and significantly correlated with immigrant life satisfaction, especially when we downplay low-value news events. This significant effect is much stronger for immigrants who have been in Germany longer, and who expect to stay there forever. This is consistent with good relations directly affecting the quality of immigrants' lives in the host country, but is not consistent with assimilation. There is thus a significant value to diplomacy: good relationships between home and host countries generate significant well-being externalities for those who live abroad.

**Keywords**: Migration, bilateral relations, life satisfaction, assimilation, diplomacy.

**JEL Codes**: F5, F22, I31.

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## 1. Introduction

One of the wide varieties of topics treated in the burgeoning happiness literature is that of the relationship between individual well-being and aggregate features of the country or region. These latter may include macroeconomic outcomes (as in Di Tella *et al*., 2003) or measures of domestic institutional quality. Existing work on the latter has produced to a certain extent mixed findings. In a well-known paper, Frey and Stutzer (2000) use Swiss data to show that both direct democracy (via initiatives and referenda) and federal structure (local autonomy) are positively and significantly correlated with individual life satisfaction. Helliwell and Huang (2008) find that life satisfaction is more strongly correlated with the World Bank measures of the quality of government than with real per capita income. They also show that, for low levels of income and worse governance, the ability to provide a trustworthy environment and to deliver services more honestly are the most important aspects for individual well-being, while, at higher levels of income and better governance, building and maintaining voter engagement becomes more important. Significant links between institutional quality and life satisfaction also appear in Ovaska and Takashima (2006) and Fischer (2008), although Bjørnskov *et al*. (2010) find no significant effect of democratic rights or civil liberties on life satisfaction.

The existing literature has related individual well-being to regional or national institutions. One obvious generalization is to extend this analysis by looking at the way in which developments in one country may affect the well-being of individuals in another country.[1] While it would appear nigh on impossible in general to obtain accurate measurement of how events abroad affect the typical respondent, we here appeal to a group of individuals who are a priori more sensitive to the situation in one particular country abroad: immigrants. In particular, we examine the impact of bilateral news between the home and host countries on the well-being of immigrants living in Germany. The implicit assumption is that diplomacy, in the sense of good relationships between countries, is a public good for the citizens of the countries involved. It is non-rival, since the effects of good/bad diplomatic relationships are not used up by their effect on the well-being of successive individuals, and non-excludable as the individuals concerned

[1] One recent example of such cross-country analysis is Metcalfe *et al*. (2011), who identify a significant effect of the 9/11 terrorist attacks on the well-being reported by respondents in the British BHPS.

cannot easily be shut out from the effects of bilateral relationships. As such, our analysis of the impact of bilateral news on migrant well-being might be thought of as a first attempt to measure the direct individual value of good diplomatic relations between countries.

From a methodological point of view, one advantage of the approach adopted here is that our measure of "institutional quality" exhibits both cross-section (immigrants from different countries) and time-series variation for individuals living in the same country (Germany). Much of the existing literature has instead appealed to aggregate measures of institutional quality which exhibit no cross-section variation within a given geographical area.

We thus require a measure of the quality of bilateral relations between countries. Instead of using subjective information, we appeal to an indicator which is relatively unknown in Economics but popular in Political Science. This indicator is created in three steps: *i)* the classification of conflict/cooperation events based on the Integrated Data for Events Analysis (IDEA) protocol; *ii)* machine-coding of Reuters bilateral country news via a specific software system for frame-parsing, visualization and data analysis; and *iii)* the weighting of specific events to create an index (the Goldstein index) based on the judgment of a panel of political-science experts regarding the relative importance of different news categories on the general level of conflict and cooperation between countries (described in Section 4.2). The analysis presented here can thus also be thought of as a joint test of the validity of this three-step approach, by evaluating: *i)* experts' ability to create a taxonomy (the IDEA protocol); *ii)* the software's reading and classification performance; and *iii)* experts' weight choices in creating the Goldstein index. Our empirical analysis will determine whether the resulting news index significantly affects the subjective well-being of immigrants, who are closely identified with the two countries in the bilateral relationship.

The paper is organized as follows. Section 2 sets out the principal hypotheses in social science regarding bilateral diplomatic relationships and immigrant well-being, and Section 3 summarizes the German immigration policies representing the institutional background to our sample period. Section 4 then describes both the IDEA coding and taxonomy of bilateral news, and how this is combined with individual-level data from the German

Socio-Economic Panel (SOEP). Section 5 presents the econometric results of the effect of bilateral relationships on individual well-being, and Section 6 concludes.

## 2. Diplomatic relationships and immigration

A number of possible arguments can be advanced regarding the relationship between immigrant well-being and bilateral news (between the home and host countries). One is that poor diplomatic relations may well make it more difficult for immigrants to be integrated in the host country. This hypothesis is developed in Rocha (2006), who shows that the deteriorating Spanish-Moroccan relationship had a negative impact on the integration of Moroccan immigrants in Spain.[2] More generally, poor diplomatic relations will negatively affect immigrant life satisfaction if they increase discrimination (as shown by Safi, 2010, using European Social Survey data).

A related argument in the general context of integration is that hostility towards foreigners resulting from poor bilateral diplomatic relations may result in restrictions on the freedom of movement across borders, as argued by Kerber (1997) and Dowty (1987); this is likely to be particularly painful for immigrants who wish to maintain contacts in their home country. More generally, Waldinger and Fitzgerald (2003) argue that any deterioration in diplomatic relations makes it more difficult for migrants to pursue their homeland interests.[3] Whether these interests be personal or business-related, we then expect the quality of the bilateral relationship to be positively correlated with immigrant well-being.

It is also possible that particular groups of immigrants be more affected than others by diplomatic relations between the home and host countries. One factor might be the degree of commitment to the host country. Those who only consider themselves to be there temporarily will perhaps feel less affected by bilateral relations. On the other hand, if

[2] The bilateral relationships under consideration here specifically focus on both old and more recent fishing, agricultural and territorial disputes, and controls over illegal immigration between the two countries.

[3] Waldinger and Fitzgerald (2003 p.12) note that "*The relationship among states also affects the conditions under which international migrants and their descendants can pursue their "homeland" interests. In general, a peaceful world encourages states to relax the security/solidarity nexus. International tension, let alone belligerence, provides the motivation to tighten up on those whose loyalties extend abroad (Armstrong, 1976). The specifics of the relationship between particular sending and receiving states matter even more. Homeland loyalties extending to allies or neutrals can be easily tolerated, but those that link to less friendly, possibly hostile states are more likely to be suspect.*"

immigrants assimilate, they may become increasingly indifferent to what is happening in their home country as their stay in the host country lengthens. Equally, if poor diplomatic relations translate into a less pleasant life for immigrants on a day-to-day basis, it may be those who are less able to deal with this stress who are more affected.

While the above arguments are based on a clear causal relationship between diplomatic relationships and migrant well-being, the causal links in some of the other arguments advanced in this literature are more blurred. In particular, Liow (2003) suggests that it was the illegal migration from Indonesia to Malaysia which produced a worsening relationship between the two countries, and emphasizes in general that tension over migratory flows is often to be found at the root of deteriorating political relationships.

We here analyse the correlation between bilateral relations and the well-being of migrants living in Germany. By way of background, the following Section provides a brief sketch of German migration policies around the time of our sample period.

## 3. German migration policy over the sample period

Germany became a net-immigration country starting in the 1960s, with a substantial inflow of guest-workers. Such workers were expected to stay temporarily and were therefore not entitled to become citizens (Algan *et al.*, 2010).

Between 1970 and 2000 German immigration policy became increasingly restrictive. In November 1973, the Federal Republic of Germany halted the recruitment of foreign labour by administrative decision. Since then practically only family members of foreign workers already residing in Germany and those admitted to the country for humanitarian reasons have been allowed access to the German labour market. However, even though economic immigration had officially stopped, immigration continued in practice via family reunions and the asylum procedure according to article 16a(2) of Germany's Basic Law

(*Grundgesetz*). This latter is an amendment replacing Article 16(2) of the Constitution (the full text of these two articles is provided in Appendix 1).[4]

In December 1983, a Law granting a share of future German pensions in the case of permanent resettlement was passed in an attempt to create incentives for the repatriation of foreigners.[5] In the electoral campaign of 1986-87 the Conservative party claimed that non-European immigrants represented a threat to the integrity of national identity and a number of xenophobic incidents took place around this time (Bosswick, 2000, p.46; Lederer, 1997, p.274). In the 1990s the end of the iron curtain eliminated one of the barriers to migration from Eastern Europe, and the civil war in ex-Yugoslavia generated a significant number of refugees in Germany. The clashes between Turks and Kurds in South-East Turkey also produced a substantial inflow of asylum seekers and refugees over the same period.

One consequence of this migratory pressure was a restrictive law passed in 1997 which set out visa requirements for unaccompanied children from Turkey, the former Yugoslavia, Morocco and Tunisia, and required existing resident children of parents from these countries to apply for residence permits. In general, asylum and temporary protection laws became stricter, creating the premises for the return of many refugees to their home countries (Bosswick, 2000, p.50).

During the same period the *Anwerbestoppausnahmeverordnung* (the decree on the exceptions to the halt on recruitment), enacted in 1990,[6] represented an additional immigration channel. This allowed exceptions for *Werkvertragsarbeitnehmer* (contract labourers) and *Saisonarbeitnehmer* (seasonal workers). In the same year, Parliament approved a new

[4] This amendment is based on four principles: first, it supports the individual right of asylum; second, individuals entering Germany from a so-called "safe third country" can no longer invoke the basic right of asylum; third, the Legislature is authorized to draw up a list of countries of origin for which there is a rebuttable presumption of freedom from persecution; and, finally, it takes account of the common European asylum policy in the context of the Schengen and Dublin agreements.

[5] Actual repatriation numbers were far below those intended. Above all, the Law led to accelerated return by those who were already planning to return, in order to benefit from the programme.

[6] The policy of restricting labour immigration was revised at the beginning of the 1990s. Although the new Law on Foreigners, in force since the 1st of January 1991, provided legislative content to this block on recruitment, the German labour market in fact became to a certain extent more open to foreigners, and in particular to workers from Central and Eastern European countries.

foreigners' Law which regulated immigration and the legal status of immigrants under the family-reunion scheme.

The end of this relatively defensive and restrictive period can be thought to have come with the 2001 *Zuwanderungskommission* report, which acknowledged the importance of immigrants for the German economy and proposed the introduction of a points system (similar to that in force in Canada) to regulate migratory flows. In addition, children born from non-German parents living in Germany for at least eight years automatically became German citizens, and the minimum period of legal residence required for naturalisation rights was reduced from 15 to 8 years (Algan *et al*., 2010).

Overall, we expect these developments in German immigration policy, with the succession of restrictions and concessions, to have created an atmosphere in which the quality of bilateral relations was particularly salient for migrants. This is what we will test in our empirical analysis.

## 4. Data and Methodology

The following sub-sections describe three key aspects of the data used here: *i)* the SOEP sample on which the analysis is carried out; *ii)* the characteristics of the news database and the associated automated-coding procedure; and *iii)* the work of the panel of experts in the creation of the Goldstein index of political news.

### 4.1. Data on migrants

Our empirical analysis is based on individual-level data from the SOEP[7] matched to coded news reports from the Integrated Data for Events Analysis (IDEA) project. We have access

[7] The data used in this paper was extracted using the Add-On package PanelWhiz for Stata®. PanelWhiz (http://www.PanelWhiz.eu) was written by Dr. John P. Haisken-DeNew (john@PanelWhiz.eu). See Haisken-DeNew and Hahn (2006) for details. The PanelWhiz generated DO file to retrieve the data used here is available upon request.

to the news report only for the period 1990 – 2004; this limits the SOEP waves we can use for the empirical analysis.[8]

As our goal is to look at the impact of bilateral relations on the subjective well-being of foreign residents in Germany, we only retain SOEP respondents who were born outside Germany. In other words, our analysis concerns the first-generation of migrants arrived in Germany.[9] The majority of these migrants are *guest workers,* i.e. people who moved to the Federal Republic of Germany in response to the labour shortage of the late 1950s. The guest-worker system of that time involved a series of bilateral treaties between German and Italy, Turkey, Yugoslavia and other Mediterranean countries. This recruitment policy ended in the 1970s. However, foreigners with a working permit were allowed to stay and to apply for an unlimited residence permit; their families were also allowed to join them.

We also include *ethnic Germans* in the sample. The concept of citizenship in Germany is based on a common cultural, linguistic and ethnic past. In this sense, German citizenship is possible for all those who can trace their ancestry back to German roots. The *jus sanguinis* explains why individuals who lived in the communist Eastern states of Germany and other European countries were immediately able to claim full citizenship (Burkhauser *et al.*, 1997) after the fall of the Berlin wall. We include ethnic Germans here as we believe that the impact of news regarding country of origin plays a role independently of ethnicity.

Our final sample consists of 27,928 person-year observations on 4,343 different individuals. About one-third of these yearly observations come from households with a foreign head, and the rest from households with German heads. The main countries of origin for the individuals included in the sample are: Turkey (23.3%), Poland (9.8%), Italy (9.7%), Ex-Yugoslavia (9.1%), Greece (6.1%), Russia (6.6%), and Kazakhstan (5.8%), as shown in Table 1. Overall, we have migrants from 97 different countries. Within this sample, 1,698 individuals (around 40% of this sample) declare to be of German nationality

[8] In addition, our empirical analysis requires the use of variables which are not fully available in the 1990 and 1993 waves. The number of waves used for the estimation is therefore 13.

[9] Our analysis omits second-generation migrants as the latter are likely to be more integrated in the host country than are their parents (Fertig, 2010; Manning and Roy, 2010). For the identification of the "value of diplomacy", via the impact of bilateral news, we need information on individuals with strong links with both the home and the host countries.

(the *ethnic Germans*). The vast majority of these were born in Poland, Russia, Kazakhstan and other Eastern European countries.

The bulk of immigration in our sample occurred between the 1970s and the 1990s, conforming to OECD statistics on immigration flows. On average, individuals report having been in Germany for 20 or more years. Immigrants from Turkey, Italy, Greece and Ex-Yugoslavia typically moved to Germany in the 1970s; those from Poland were more likely to have arrived in the late 1980s; and those from Russia moved to Germany at the beginning of the 1990s.

Men and women are almost equally represented in the sample (men account for 50.9% of the person-year observations). In the pooled sample, the median age of migrants is 43, although Turkish and Kazakh immigrants are younger (with a median age of 36). For the other major immigrant groups, the lowest median age is found amongst the Polish (39), and the highest for Greek immigrants (51). The majority of observations in the sample refer to the married, and only 25% of them refer to those without children living with them. With respect to labour-force status, 45.8% of observations refer to full-time employment, 7.5% part-time employment, and 9.9% unemployment.[10] Regarding education (see Table A1 in Appendix 2), 20.7% of migrants have a secondary-school qualification, 45.5% have other qualifications which are not well specified, and 19.2% have no qualifications (these are person–year percentages).

We have one variable reflecting migrant integration: their willingness to stay in Germany. The majority of migrants in our sample are willing to stay forever in the host country (64.8% of the 24,256 person-year observations for which this variable is available). This variable differs notably by country of origin: the vast majority of Polish and Russian immigrants want to remain in Germany, while less than 40% of Greeks wish to do so.

We match each SOEP observation on a migrant to an index value for the bilateral relationship between Germany and the migrant's country of origin. This index is explained below.

[10] The other categories here are marginal part-time employment, vocational training. and military or community service.

### 4.2. The Integrated Data for Events Analysis database

> Event data – "day by day coded accounts of who did what to whom as reported in the open press" – offer the most detailed record for the relations among and between actors (Goldstein, 1992, p.369).

Our data on events occurring between Germany and the migrant's home country come from the database of Reuters' news events compiled by an automated information extraction program applying the Integrated Data for Events Analysis (IDEA) protocol.[11]

The IDEA project has its roots in the World Handbook for Political and Social Indicators project, which pioneered the coding of domestic political event data for most of the countries in the world. The Handbook's indicators included measures of both peaceful and violent events of mass political protest, sanctions by governments, armed civil conflict and changes of government executives. In 1988 a project known as the Protocol for the Assessment of Nonviolent Action (PANDA) was launched, in which social scientists began to assess systematically the incidence of nonviolent struggle throughout the world. After a pilot study based on "hand coding" of global news reports, the project coordinators started to look for automated tools. In 1996 they began to work with Virtual Research Associates, Inc. (VRA) to develop a frame parsing data development, analysis and visualization software system. This system is now called the VRA® Knowledge Manager,[12] and produces weekly data updates for all of the countries in the world. In 1997 J. Craig Jenkins and Charles Lewis Taylor joined the PANDA research team to develop the conceptual framework for IDEA (Bond *et al.*, 2001). The IDEA protocol and the VRA® Knowledge Manager Software system operate together to generate data automatically regarding social, economic, environmental and political events, which are displayed in terms of event counts.

Operationally, the VRA® Reader extracts the first two sentences from Reuters Business Briefing articles: journalists use the entry sentences to summarize the article's key points.

[11] The data described in this article are available at http://GKing.Harvard.edu.
[12] More information can be found at http://www.vranet.com.

The software transforms this information into a database record, where each record lists the event's *source* and *target* actors and a numerical code for the *event type*. This latter is coded following the IDEA 157-category typology which covers almost all of types of event identified in previous event data collections.[13]

King *et al*. (2003, p.620) illustrates how the process transforms the news' events:

> *"For example, here are two sample leads with source actors (S), target actors (T), and numerical IDEA categories annotated:*
>
> *Russian artillery (S) south of the Chechen capital Grozny blasted (IDEA 223) Chechen positions (T) overnight before falling silent at dawn, witnesses said on Tuesday.*
>
> *Israel (S) said on Tuesday it sent humanitarian aid (IDEA 073) to Colombia (T) where a massive earthquake (S) last week killed (IDEA 96) at least 938 people (T) and injured 400.*
>
> *The VRA reader can map the specific actors and targets identified above to higher level categories that provide more meaning in comparative analysis. For example, the program outputs will indicate that "Chechen positions" is a place in "Chechnya," which is part of "Russia". IDEA codes 223, 073, and 96 denote military engagement, humanitarian aid, and natural disaster, respectively. Reuters leads are written to provide a précis of the full news story, so it is very common for news leads to contain multiple events".*

The VRA® Reader output matrix of "events" (composed of *who does what to whom, when, where and how*) can be analyzed statistically.[14] The VRA® Reader has agreed to provide free access to the data generated by the Reader from all Reuters' news stories covering the entire world during the period 1990 to 2004.

The VRA Event Data files we use were released on February 2005, with a major revision in March 2007. The dataset contains 10,252,937 events covering the period 1990-2004. The bulk of the news was extracted from Reuters Business Briefings, with the exception of 2003 and 2004 when the news sources were Factiva World News and Reuters World news.

The information available for each event consists of:

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[13] These collections have been widely used in research. They include the World Events Interaction Survey (WEIS), the World Handbook of Political and Social Indicators, Militarized Disputes, the Conflict and Peace Data Base (COPDAB), the Mass Conflict in East Europe project, and the PRODAT project (see Schrodt, 2001, for a summary).

[14] Machine coding may be more transparent than human coding because it does not guess and does not miss events due to confusion or the existence of multiple events. One criticism of automated coding is that it may lead to duplication. If the same event is reported in multiple stories, the machine will generate multiple event records. While this is theoretically the case, we in fact rarely find exact duplicates in the source-event-target records. We checked this empirically on a run of some 500,000 records, and found just four (under 0.001 percent).

i) *Place* - where the event occurred;
ii) *Event date* - the date (day/month/year) that the news report was written;
iii) *Event form* - the four-letter IDEA event acronym associated with the event;
iv) *Source/target name* - the country associated with the event's initiating actor (source) or recipient actor (target);
v) *Source/target sector* - the sector associated with the event's initiating actor (source) or recipient actor (target);
vi) *Source/target level* - the level of organization associated with the event's initiating actor (source) or recipient actor (target).

The event form is one of 157 categories (see the website link: http://vranet.com/IDEA). King *et al*. (2003, p.620) note that "*the IDEA codes created by VRA constitute an ontology because they are a hierarchically organized typology of all that can happen in the field of international relations*". These codes extend the 22 cue categories proposed by the McClelland's World Events Interaction Survey (WEIS) ontology, to provide more detailed information on the event.[15]

We here merge the event dataset with our SOEP sample. We select only those news reports where the *source* or the *target* of the event is Germany. For each IDEA code we compute the total yearly frequencies of bilateral events. In our sample, we have 97 countries of origin for the migrants including some aggregate areas such as Eastern Europe, yielding to a total number of 35,959 news reports.[16]

### 4.3. The Goldstein Index

The IDEA events data refer to discrete events, but for statistical purposes researchers often require aggregate figures by year and category.

Joshua S. Goldstein (1992) addressed the problem of "*combining different types of events into a single theoretical meaningful measure of the relationship between two nations*" by proposing a

[15] For example in the IDEA categories, 09 is a request, 091 is a request for information and 093 is a request for material assistance. In Appendix A2 we list these categories organized by cooperation and conflict, and verbal and action type.
[16] In general, the news event's source or target is not only the country's Government, but can also refer to actors such as civil society and local communities, NGOs or other social organizations.

new conflict–cooperation scale. This scale represents an alternative to simply counting up the number of events by category and is a benchmark as it weights the different types of events according to expert judgments.

The Goldstein scale was developed by a panel of eight researchers affiliated to the School of International Relations at the University of Southern California. They placed the IDEA events on a scale running from extreme conflict or hostility to extreme cooperation or friendliness. Each event was rewritten as an action taken by country A towards country B. In the first stage, events were scored on a linear scale from +10 to -10 representing the degree of conflict or cooperation typically embodied in each action. Neutral events were assigned a value of zero. In the second stage, Goldstein assigned to each event type the mean of the scores suggested by the panellists. Researchers most often agreed on the degree of conflict or cooperation assigned to each event and the margin of deviation was on average of 1 or 2 points. The agreement was greater for events judged to be at the extremes of the cooperation/conflict scale. On the contrary, milder events had a higher standard deviation.

More formally, the Goldstein index is defined as follows:

$$GOLDSTEIN_{jt} = \sum_{K} w_k I_{kjt} \qquad (1)$$

where $I$ is the yearly sum of the frequency of the $k$ IDEA event – type ($k$=1,….,157) involving Germany and the migrant's country of origin $j$ (j=1,…,97) as reported by Reuters, $w$ is the weight given to the $k$–type news by the panel of experts, and $t$ (t=1,…,13) is the year of the SOEP wave.

The actual weights $w$ in the Goldstein scale vary from -10 to +8.3 (see Appendix 2, Table A1). The most negative event categories (all with a weight of -10) are missile attacks, military clashes and military raids. Seizing possession, assassination, beatings and torture are slightly less negative. The most positive events are extended military and economic aid and bilateral agreements. In the middle, with small negative and positive weights, we have a series of milder events including (on the positive side) meetings, mediation and negotiations and, on the negative side, denials, verbal protests and warnings.

Summing the weights over the *k* events produces a yearly index of bilateral relations between Germany and a migrant origin country. As shown in Table 2, the resulting Goldstein index displays considerable variability for some countries (Russia, Turkey, Poland and Italy) while for other countries (Bosnia and Eastern Europe as a residual category[17]) it often takes on values of zero.

## 5. Selection criteria and hypothesis testing

Section 4 underlined that the Goldstein index is based on three key ingredients: *i)* the taxonomy of events defined *ex ante* in the IDEA protocol; *ii)* the automatic selection and classification capacity of the VRA software; and *iii)* the event weights from the expert panel. We will now see whether the final index is related to the well-being of individuals who are perhaps the most likely to be affected by international events: migrants.

In general, we will not be able to evaluate separately the contribution of the three ingredients above, although we can tentatively examine the role of expert weights by comparing the effect of unweighted events to that of the (weighted) Goldstein index.

One potential mediating factor regarding bilateral news and immigrant well-being is the relationship that immigrants have with their home country. In particular, immigrants may have migrated exactly because they did not agree with home-country politics. This is arguably less likely if the home country has been politically stable over the sample period (1990-2004), but may hold if there has been substantial political change. In the latter case, some migrants may well be political refugees and good bilateral news regarding their home country may not increase their well-being. This could be the case for ethnic minorities in Ex-Yugoslavia (Serbs from Croatia, Albanians from Kosovo, etc.). In general, we do not know whether immigrants are in favour of their country's current leadership. However, this will not matter if the causal channel is the quality of the migrant's life in the host country: in this case worse relations between the home and host countries are always bad, independently of the immigrants' views about the home-country political situation.

[17] This residual category represents Eastern European countries which do not appear individually in Table 3, and includes only relatively few migrants to Germany. It is aggregated for simplicity in the Table, although the Goldstein Index continues to be calculated at the country level.

Overall, the correlation between the Goldstein index and immigrants' well-being is ambiguous.

### 5.1 Specification

We start by estimating a standard life satisfaction regression to which we have added the Goldstein index. Our linear fixed-effect model is:

$$LS_{ijt} = \alpha_0 + \alpha_1 GOLDSTEIN_{jt} + \alpha_2 \ln(HY_{it}) + \sum_Z \alpha_{3z} X_{zit} + DYear_t + \eta_i + \varepsilon_{it} \quad (2)$$

The dependent variable here is life satisfaction at time *t* for migrant *i* from country of origin *j*. The term $\eta_i$ reflects the time-invariant individual fixed effects. Life satisfaction refers to the SOEP question "*How satisfied are you with your life, all things considered?*". Responses are on a scale from 0 (completely dissatisfied) to 10 (completely satisfied).[18]

We control for log equivalent real household income using the OECD scale (HY).[19] The other variables in the X-vector are standard in the life-satisfaction literature: marital status,[20] education in six categories (intermediate, technical, secondary, upper secondary, other degree, in school),[21] labour-force status, health (measured by the number of days in hospital over the previous year), five age categories, a dummy for East Germany, and the number of children (as we control for equivalent income, this captures the non-monetary effects of children). The key right-hand side variable in (2) is the Goldstein index describing the bilateral relation at time *t* between Germany and the country of origin *j*.

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[18] There is a well-known methodological problem in using life satisfaction information relating to interpersonal scale heterogeneity (Harsanyi, 1953). However, the literature in Economics seems to have gradually moved towards the position that there is useful cross-section (and panel) information in self-reported scores. In an early contribution, Cantril (1965) suggested that individual evaluations on the 1-10 scales are reasonably comparable. Di Tella and MacCulloch (2006) argue that, even though heterogeneity in individual scales exists, there are no *a priori* reasons why it should systematically be correlated with the drivers of life satisfaction. More recently, Beegle *et al*. (2009) use a vignette approach to reveal the existence of heterogeneity, which however, does not significantly affect the life satisfaction regression results. This is because: *i)* the heterogeneity is uncorrelated with happiness regressors; *ii)* the vignette rankings are independent of the residual in the life satisfaction regression; and *iii)* the results regarding the determinants of life satisfaction are unchanged when self-declared life satisfaction is rescaled using the vignette results.

[19] Becchetti *et al*. (2009) discuss robustness to different income scale elasticities in the SOEP data. Clark *et al*. (2008) and Dolan *et al*. (2008) are surveys of the abundant literature on income and life satisfaction.

[20] Marital status and well-being is analyzed in Blanchflower and Oswald (2004) and Frey and Stutzer (2006).

[21] Empirical findings regarding the direct effect of education on well-being are mixed. However, Frey and Stutzer (2002) suggest that the indirect effects of education via health and income are robust.

The inclusion of year dummies in this specification is open to debate. The estimated year effects (picking up economic performance, for example) may well be systematically correlated with the bilateral news variables. More importantly, it is possible that worsening bilateral relationships with one immigrant country makes life more difficult for all migrants. This will lead to a correlation between the year dummy and bilateral news. We therefore estimate all of the key regressions both with and without year dummies.

Equation (2) is estimated via a within regression, in which the dependent variable is assumed to be continuous. Life satisfaction is ordinal, so that its panel estimation would require something like a conditional fixed effect logit (as in Clark, 2003). However, as Ferrer–i–Carbonell and Frijters (2004) argue, cardinal estimation seems to do just as well as ordinal estimation in this context. Standard errors are clustered by year and country of origin. The results are presented in Table 3.

## 6. Regression Results

Table 3 includes six linear fixed-effect specifications. The Goldstein index is introduced in three different ways: linearly, quadratically and linearly dropping country-years without bilateral news events; each of these three specifications is estimated both with and without year dummies. The quadratic specification asks whether bilateral news items with smaller index weights are noisier (as the expert weights diverged more for these events) and thus have less impact on migrant well-being. The arguably drastic approach of dropping country/years when there is no news (the third specification) reflects that non-events are not necessarily synonymous with an event value of zero.[22]

The estimated coefficients on most of the controls are standard and do not require any particular comment: marriage and income attract positive significant coefficients, while those on unemployment and hospital visits are negative. The relationship between life satisfaction and age is U-shaped.[23]

[22] An analogous argument is made in the event study literature in finance (Campbell *et al*. 1997). Here the analysis covers the impact of events on abnormal returns on stocks. Non-events are not taken into account.
[23] This U-shape is the object of a lively literature: some examples of which are Clark *et al*. (1996), Fischer (2009), Frijters and Beatton (2008) and Van Landeghem (2008).

The most important piece of information in this table is the estimated coefficient on the Goldstein index of bilateral relations, as a determinant of migrant life satisfaction. This is positive and significant in all of the six specifications (although only weakly significant in the linear specification with time dummies). The estimated index coefficient is more significant when time dummies are excluded, and when small index values are assigned lower weights (corresponding to both the quadratic specification and that with zero values treated as missing).

To evaluate the economic significance of our findings we can calculate the associated compensating surplus, as is standard in the literature measuring the value of non-market goods based on happiness data (see Welsch, 2002, and Luechinger, 2009, for air pollution; Frey *et al.*, 2009, for terrorist activity; van Praag and Baarsma, 2005, for noise; and Luechinger and Raschky, 2009, for flooding).

This compensating surplus (CS) is computed as:

$$CS_{i,t} = Y_{i0}(1 - \exp(\hat{\alpha}_1 * (\hat{\alpha}_2)^{-1})\Delta P_i \qquad (3)$$

where $\alpha_2$ is the coefficient on the non-market good in question, $\alpha_1$ is the coefficient on income and $\Delta P_i$ is the change in the non-market good.

Using the estimated coefficients in Table 3, a unit reduction in the index from its mean value (19.44), *i.e.* a small move toward reduced cooperation/increased conflict, generates a loss ranging from 75.4 Euros (the linear Goldstein index with time dummies) to 143.5 Euros (the discontinuous Goldstein index with time dummies). The actual observed changes in relations reported in Table 2 can then produce substantial well-being effects. For example, the radical change in relations between Germany and Turkey from 1991 to 1992 (a 50-point change) produces a well-being effect that is equivalent to 3,771 to 7,175 (2002) Euros according to the regression specification. This represents around 12.5 to 24.5 percent of average yearly household income in the estimation period.

Table 4 shows the results from alternative estimations, using pooled estimation techniques (pooled OLS and ordered logit). The Goldstein index is very significant in all of these specifications.[24]

The analyses in Tables 3 and 4 cover the entire population of migrants. It is however possible that the effect of bilateral relations with the home country differ by migrant type. Columns 2 and 3 of Table 5 show the results from Table 3's fixed-effect analysis when immigrants are split by their willingness to remain in the host country. Bilateral relations are significant for migrants who wish to stay forever in the host country, but not for those who envisage leaving. Migrants who want to remain are likely those who are more integrated in Germany and who have the most to lose from deteriorating bilateral relationships. Analogous results pertain when we split the sample according to the length of time since immigration: the Goldstein index is significant for those who have been in the host country for at least 15 years, but not for those who migrated more recently. Again, this may reflect the relationship between length of stay and assimilation, and the greater costs of bad relationships for those who are more assimilated in Germany.

This heterogeneity in the effect of bilateral relations on immigrant well-being suggests that the key channel of influence works via immigrants' living conditions in the host country. The migrants who want to stay and who have been in Germany for a substantial time are more likely to care about their living conditions in the host country. On the other hand, migrants who wish to return are probably less likely to be in political dispute with their home country, and those who wish to stay in the host country are more likely to be in disagreement. Table 5 is not then consistent with political consent/dissent with respect to the home country driving immigrants' reactions to bilateral news.

We can also consider whether demographic characteristics affect the reaction to news. We first consider sex, and find that the effect of bad news on well-being is stronger for women than for men. With respect to education, the well-being of the less-educated (intermediary or no school certificate) is more strongly affected by bad news than is that of the higher-educated (secondary or upper-secondary schooling), although both effects are significant.

[24] The pooled Goldstein index coefficient is larger than that in the fixed effects analysis: immigrants with higher "baseline" satisfaction scores come from countries with a better relationship with Germany.

As in Pohl (2007), country of origin is significantly correlated with immigrant life satisfaction. To check whether this heterogeneity affects our news results, we estimate separate regressions for home countries where there are a sufficient number of observations (Turkey, Italy, Greece, Spain, Poland, Romania, Ex-Yugoslavia and Russia).[25] The coefficient on the Goldstein index (in Table 5) is significant in all six of the estimated specifications for Turkey and is somewhat less significant in Russia. Without year dummies, the discontinuous Goldstein index is significant in the countries for which we have a larger number of observations (Turkey, Poland, Italy, Russia, Greece and Romania).

We also considered whether the impact of bilateral relations on immigrant well-being depended on how "German" the immigrants are. We therefore re-estimated the regressions in Table 3, including an interaction between the Goldstein index and a dummy for being an ethnic German immigrant. This interaction systematically attracted an insignificant estimated coefficient: bilateral news matters for ethnic German immigrants just as much as it matters for other immigrants.

As noted in Section 5, testing the effect of the Goldstein index on life satisfaction is implicitly a joint test of the significance of the combined capacity of the event taxonomy, the automated coding procedure and the expert weights to produce an index that matters for immigrant life satisfaction. If the index does not attract a significant coefficient, we cannot be sure whether immigrants are really indifferent to bilateral news, or whether one or more of the three index-construction procedures is at fault. We can make some progress in addressing the latter by separately estimating the well-being effect of some of the different news types, which removes any role for expert weights.

To establish the impact of separate news types, we can calculate the number of events of a certain type per country-year or a dummy for at least one event of that type occurring per country-year. We also have to decide whether to introduce the event types one by one, or jointly. The former introduces omitted variable bias and the second the risk of

[25] The number of observations is of course much smaller within individual countries, which will affect the significance of the estimated coefficients. There are 1,011 individuals with 7,251 individual-year observations in Turkey, but only 265 individuals with 1,875 observations in Greece (6th in the ranking: see Table 1).

multicollinearity. We choose the second solution but test for multicollinearity via the VIF[26] factor. We also check that the qualitative results are similar when the event types are introduced one by one.

Table 6 summarizes the event types which attract significant coefficients under pooled and fixed-effect estimation. A certain number of event types are individually significant in determining immigrant life satisfaction, more so on the cooperation than on the conflict side. This number is larger for the pooled than for the fixed-effect estimates. As such, the effect of bilateral relations on immigrant life satisfaction seems to be robust, and not an artefact of index construction.[27]

A final question here refers to the specificity of the relationship with Germany: are immigrants happy to come from a country that generally has good relationships with other countries, or is it the specific relationship between Germany and the host country that matters? To investigate, we can use the same database to create a yearly measure of the quality of the relationships between the immigrant's home country and all of the other countries in the world. There is actually only little evidence that this multi-country Goldstein index is significantly positively correlated with immigrant well-being (results available on request): it is relationships between the home country and Germany that matter, not relationships between the home country and other countries in general.

While we have established a positive correlation between good bilateral relations and immigrant life satisfaction, we have not thus far explicitly mentioned causality. There is potential reverse causality if dissatisfied migrants create political problems in the host country, which consequently affects bilateral relations between the home and host countries. It is however worth noting that in most country-years we do not have observations on negative events between countries. Further, the fixed-effects approach

[26] The VIF (variance inflation factor) is defined as 1/1-R(x), where R(x) is the R-squared from the regression of the explanatory variable on all of the other independent variables (Marquardt, 1970). As R(x) tends towards zero, the VIF tends to one. The general rule of thumb adopted in the literature is that a VIF value below 10 (or, more restrictively, five) is acceptable.

[27] A further check is to create an index which is the simple algebraic sum of positive (cooperation) and negative (conflict) events for the relative country year. This index attracts coefficients which are much less significant than those in Table 3, confirming the relevance of expert weights (these results are available upon request).

partially tackles this issue by eliminating any endogeneity due to time-invariant omitted regressors (like being a "troublemaker").

## 7. Conclusions

One potential negative effect of deteriorating diplomatic relationships between countries is their effect on immigrants. This may arise formally from explicit legal or regulatory action against foreigners or, more informally, from worsening relations between the domestic population and foreigners in the latter's day-to-day lives. As such, diplomacy may be considered as a public good. We here try to measure this public-good aspect of diplomacy by showing how the degree of conflict/cooperation between home and host countries affects the life satisfaction of immigrants.

The key variable in our analysis is the Goldstein Index, a quantitative measure of news events between two countries created by a panel of political science experts. This is constructed in three steps: defining a taxonomy of conflict and cooperation event types, identifying weights for their relative importance, and using an automatic parsing and coding procedure to analyse textual information and classify it into the above-mentioned taxonomy.

This bilateral conflict/cooperation index is shown to be significantly correlated with the life satisfaction of immigrants from the countries in question to Germany in SOEP panel data. The estimated index coefficient is more significant in quadratic form, reflecting the greater disagreement of the expert panel over low-weight event types, and when dropping country-years in which no events are registered. The weights assigned by experts reflect the reality of the quality of immigrants' lives: weighted sums of events are better predictors of well-being than are unweighted sums.

The effect of bilateral relations on immigrant well-being is found only for immigrants who have been in Germany longer, and those who have no intention of returning to their home country. This is consistent with bilateral relations affecting the current and future quality of immigrants' lives in the host country. It is however not consistent with assimilated immigrants becoming increasingly uninterested in developments in their home country.

The country of origin remains salient for immigrant well-being, no matter how long they stay in the host country. This applies both for those who might be seen to be foreigners, and for ethnic German immigrants. While integration may take place in any number of domains, with migrants becoming more like natives over time with respect to their wages, education and even culture, the world remains inter-related with respect to the effect of home-country developments on immigrant well-being.

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**Table 1. The principal countries of origin of immigrants (not born in Germany) in the SOEP sample**

| Country of origin | Overall No. of obs.*** | Overall Percent | Between No. of obs.** | Between Percent |
|---|---|---|---|---|
| Turkey | 7,251 | 25.96 | 1,011 | 23.28 |
| Poland | 2,544 | 9.11 | 425 | 9.79 |
| Italy | 3,008 | 10.77 | 420 | 9.67 |
| Ex-Yugoslavia | 2,243 | 8.03 | 397 | 9.14 |
| Russia | 1,618 | 5.79 | 288 | 6.63 |
| Greece | 1,879 | 6.73 | 265 | 6.1 |
| Kazakhstan | 1,360 | 4.87 | 251 | 5.78 |
| Spain | 1,061 | 3.8 | 181 | 4.17 |
| Romania | 950 | 3.4 | 152 | 3.5 |
| Other Eastern Europe | 942 | 3.37 | 135 | 3.11 |
| Croatia | 875 | 3.13 | 88 | 2.03 |
| Bosnia Herzegovina | 501 | 1.79 | 62 | 1.43 |
| Austria | 300 | 1.07 | 53 | 1.22 |
| Other countries* | 3,396 | 12.18 | 615 | 14.15 |
| Total | 27,928 | 100 | 4,343 | 100 |

*** Individual-year observations. ** Individuals. * Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Azerbaijan, Bangladesh, Belarus, Belgium, Brazil, Bulgaria, Cameroon, Canada, Chad, Chile, China, Columbia, Costa Rica, Cuba, Czech Republic, Denmark, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Finland, France, Georgia, Ghana, Guinea, Hungary, India, Indonesia, Iran, Iraq, Ireland, Israel, Japan, Jordan, Korea, Kosovo, Kyrgyzstan, Latvia, Lebanon, Luxembourg, Macedonia, Mali, Mauritius, Mexico, Moldavia, Morocco, Mozambique, Namibia, the Netherlands, Nigeria, Norway, Pakistan, Paraguay, Philippines, Portugal, Singapore, Slovenia, Slovakia, Somalia, South Africa, Sri Lanka, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Trinidad, Ukraine, United Kingdom, United States, Uzbekistan, Venezuela, Vietnam.

**Table 2. Goldstein Index values by year and main immigrant home countries**

| Year | All | Turkey | Poland | Italy | Ex-Yugoslavia (residual) | Russia | Greece | Kazakhstan | Spain | Romania | Eastern Europe (residual) | Croatia | Bosnia Herzegovina | Austria |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1991** | 28.96 | 52.90 | 38.40 | 37.30 | -8.20 | 0.00 | -1.30 | 0.00 | 10.70 | -6.20 | -3.90 | 73.00 | -8.20 | 6.70 |
| **1992** | 10.99 | 1.80 | 22.80 | 4.00 | 21.40 | 82.80 | 24.40 | 0.00 | 21.60 | 2.00 | -0.40 | 16.50 | 13.50 | 14.10 |
| **1994** | 14.14 | -27.00 | 23.90 | 53.20 | -4.40 | 170.80 | 7.50 | 0.00 | 91.20 | 15.30 | 0.00 | 22.00 | 29.90 | 11.20 |
| **1995** | 2.87 | -48.90 | 24.70 | 45.00 | 11.10 | 41.40 | 25.90 | 6.00 | 23.00 | 0.30 | 5.00 | -45.40 | 18.00 | 8.50 |
| **1996** | 29.39 | -1.50 | 103.50 | 65.50 | -4.40 | 156.40 | 8.70 | 0.00 | 0.00 | 15.80 | 0.00 | 13.40 | 67.90 | 16.90 |
| **1997** | 28.16 | -10.90 | 62.00 | 76.80 | 0.50 | 150.30 | 15.40 | 0.00 | 42.50 | 28.40 | -4.00 | 30.70 | -7.50 | 18.00 |
| **1998** | 18.66 | -43.60 | 46.00 | 75.90 | 5.60 | 197.30 | 29.00 | -34.80 | 27.10 | 3.40 | -2.60 | -4.50 | 8.10 | 9.10 |
| **1999** | 42.56 | 24.40 | 70.50 | 148.70 | -22.90 | 134.40 | 13.60 | 5.80 | 33.50 | 9.50 | 0.00 | 28.80 | 9.30 | 9.60 |
| **2000** | 36.12 | -0.80 | 65.10 | 50.00 | 19.40 | 193.90 | 20.00 | 0.00 | 21.70 | -0.60 | -0.20 | 3.40 | 15.60 | 25.50 |
| **2001** | 18.29 | 6.50 | 14.20 | 16.20 | 3.00 | 78.40 | -0.20 | -0.20 | 55.30 | 11.20 | 0.00 | 13.20 | 10.30 | 23.00 |
| **2002** | 11.74 | -7.40 | 14.80 | 44.20 | 1.20 | 43.50 | 5.80 | 0.00 | 13.20 | 3.00 | 0.00 | 4.90 | 13.40 | 15.10 |
| **2003** | 11.41 | 11.40 | 11.90 | 10.30 | 0.60 | 46.00 | -2.40 | 0.00 | 1.30 | 0.00 | 0.00 | -0.20 | 0.00 | 17.80 |
| **2004** | -0.53 | -31.00 | 22.80 | -1.70 | 0.60 | 25.80 | 3.40 | 0.00 | 33.90 | -5.20 | 2.00 | -0.20 | 0.00 | 13.60 |

Notes. The Goldstein index measures bilateral relations between countries, as a weighted sum of news events. More positive scores correspond to more cooperation and less conflict. Note that for Russia before 1992 we do not have nationality information. The years 1990 and 1993 are missing because one of our control variables is missing in those years. Eastern Europe and Ex Yugoslavia refer to individuals from countries that do not appear elsewhere in the Table (Poland, Romania, Croatia, and Bosnia Herzegovina).

**Table 3. Life Satisfaction and bilateral relations. Fixed-effect estimates with linear, quadratic and discontinuous indices.**

| Goldstein index | Quadratic | | Disc.§ | | Linear | |
|---|---|---|---|---|---|---|
| [Goldstein/1000]$^2$ | 3.232*** | 3.879*** | | | | |
| | (1.079) | (1.049) | | | | |
| Goldstein/1000 § | | | 0.657** | 0.885** | | |
| | | | (0.281) | (0.35) | | |
| Goldstein/1000 | | | | | 0.494* | 0.885** |
| | | | | | (0.279) | (0.347) |
| Log Real HH Income | 0.189*** | 0.194*** | 0.173*** | 0.181*** | 0.188*** | 0.192*** |
| | (0.039) | (0.037) | (0.04) | (0.038) | (0.039) | (0.037) |
| No. children | -0.038** | -0.023 | -0.040** | -0.027* | -0.037** | -0.023 |
| | (0.018) | (0.016) | (0.018) | (0.016) | (0.018) | (0.016) |
| Married | 0.327*** | 0.265*** | 0.306*** | 0.246** | 0.327*** | 0.267*** |
| | (0.081) | (0.083) | (0.092) | (0.094) | (0.081) | (0.084) |
| Separated | -0.012 | -0.101 | 0.002 | -0.084 | -0.01 | -0.096 |
| | (0.187) | (0.186) | (0.198) | (0.198) | (0.188) | (0.188) |
| Divorced | 0.106 | 0.03 | 0.108 | 0.036 | 0.106 | 0.031 |
| | (0.115) | (0.12) | (0.12) | (0.126) | (0.115) | (0.12) |
| Widowed | -0.087 | -0.196 | -0.082 | -0.188 | -0.086 | -0.193 |
| | (0.173) | (0.179) | (0.16) | (0.163) | (0.173) | (0.177) |
| Secondary-School Qualification | 0.092 | 0.095 | 0.072 | 0.077 | 0.092 | 0.094 |
| | (0.077) | (0.077) | (0.08) | (0.08) | (0.076) | (0.076) |
| Intermediate School Qualification | 0.163 | 0.156 | 0.163 | 0.155 | 0.163 | 0.155 |
| | (0.142) | (0.138) | (0.152) | (0.148) | (0.142) | (0.138) |
| Technical School Qualification | 0.26 | 0.229 | 0.235 | 0.207 | 0.259 | 0.23 |
| | (0.211) | (0.211) | (0.231) | (0.23) | (0.211) | (0.212) |
| Upper Secondary Qualification | 0.263** | 0.243** | 0.236** | 0.214** | 0.260** | 0.238** |
| | (0.102) | (0.101) | (0.108) | (0.107) | (0.102) | (0.101) |
| Other Qualifications | 0.101 | 0.096 | 0.086 | 0.083 | 0.101 | 0.096 |
| | (0.102) | (0.1) | (0.109) | (0.108) | (0.101) | (0.1) |
| In School | 0.745*** | 0.825*** | 0.660*** | 0.707*** | 0.746*** | 0.824*** |
| | (0.148) | (0.155) | (0.164) | (0.17) | (0.148) | (0.155) |
| Full-Time Employment | 0.263*** | 0.289*** | 0.284*** | 0.311*** | 0.263*** | 0.289*** |
| | (0.058) | (0.058) | (0.056) | (0.055) | (0.058) | (0.058) |
| Part-Time Employment | 0.149*** | 0.158*** | 0.178*** | 0.189*** | 0.149*** | 0.157*** |
| | (0.05) | (0.049) | (0.05) | (0.048) | (0.05) | (0.049) |
| Vocational Training | 0.119 | 0.155** | 0.096 | 0.127* | 0.120* | 0.156** |
| | (0.072) | (0.074) | (0.073) | (0.076) | (0.072) | (0.074) |
| Marginal Part-Time Employment | 0.097 | 0.105 | 0.125* | 0.129** | 0.098 | 0.105 |
| | (0.067) | (0.065) | (0.066) | (0.064) | (0.067) | (0.064) |
| Military, Community Service | 0.262 | 0.262* | 0.066 | 0.07 | 0.264 | 0.261* |
| | (0.16) | (0.153) | (0.186) | (0.17) | (0.16) | (0.153) |
| Unemployed | -0.431*** | -0.432*** | -0.426*** | -0.425*** | -0.431*** | -0.432*** |
| | (0.052) | (0.053) | (0.053) | (0.054) | (0.052) | (0.053) |
| Hospital Stay | -0.176*** | -0.176*** | -0.164*** | -0.163*** | -0.177*** | -0.177*** |

| | | | | | | |
|---|---|---|---|---|---|---|
| | (0.028) | (0.029) | (0.027) | (0.028) | (0.028) | (0.029) |
| East | -1.042*** | -1.019** | -0.65 | -0.665 | -1.031*** | -1.014** |
| | (0.389) | (0.399) | (0.493) | (0.519) | (0.388) | (0.398) |
| Age Dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Year dummies | Yes | No | Yes | No | Yes | No |
| Constant | 4.398*** | 3.216*** | 4.437*** | 3.253*** | 4.409*** | 3.238*** |
| | (0.56) | (0.488) | (0.614) | (0.535) | (0.561) | (0.481) |
| Observations | 27928 | 27928 | 25392 | 25392 | 27928 | 27928 |
| R-squared | 0.049 | 0.041 | 0.048 | 0.041 | 0.049 | 0.041 |
| Number of individuals | 4343 | 4343 | 4205 | 4205 | 4343 | 4343 |

Notes: Country-year clustered standard errors in parentheses. *** = p<0.01; ** = p<0.05; *=p<0.1. Goldstein §: observations in years with no bilateral news events between countries *i* and *j* are dropped. The regressor definitions appear in Appendix 2, Table A1.

**Table 4. Life Satisfaction and bilateral relations: different estimation methods**

***Pooled OLS***

| Goldstein index | Linear | | Disc.§ | | Quadratic | |
|---|---|---|---|---|---|---|
| Goldstein | 2.98*** | 2.97*** | | | | |
| | (0.764) | (0.837) | | | | |
| Goldstein § | | | 3.25*** | 3.12*** | | |
| | | | (0.770) | (0.720) | | |
| [Goldstein]$^2$ | | | | | 11.20** | 11.58** |
| | | | | | (5.09) | (4.84) |

***Ordered logit***

| Goldstein index | Linear | | Disc.§ | | Quadratic | |
|---|---|---|---|---|---|---|
| Goldstein | 3.26*** | 3.26*** | | | | |
| | (0.895) | (0.895) | | | | |
| Goldstein § | | | 3.55*** | 3.38*** | | |
| | | | (0.826) | (0.781) | | |
| [Goldstein]$^2$ | | | | | 12.47** | 12.91*** |
| | | | | | (4.90) | (4.64) |

Notes. The dependent and explanatory variables are the same as in Table 3. Goldstein §: observations in years with no bilateral news events between countries *i* and *j* are dropped. Country-year clustered standard errors in parentheses. *** = p<0.01; ** = p<0.05; *=p<0.1. The regressor definitions appear in Appendix 2, Table A1.

**Table 5. Summary of the effect of bilateral relations by sub-sample (wish to stay for ever, migration duration, countries of origin)**

| **Individual Effect** | **Fixed** | **Fixed** | **Fixed** | **Fixed** | **Fixed** | **Fixed** |
|---|---|---|---|---|---|---|
| **Time Dummies** | Yes | No | Yes | No | Yes | No |
| **Index** | Linear | | Quadratic | | Discontinuous | |
| **All** | * | ** | *** | *** | ** | ** |
| **Wants to stay forever In the host country** | | *** | * | *** | ** | *** |
| **Doesn't want to stay forever In the host country** | | | * | * | | |
| **In Germany for more than 15 years** | * | ** | ** | *** | | *** |
| **In Germany for less than 15 years** | | | | | | |
| **Female** | ** | *** | ** | *** | | ** |
| **Male** | | | | | | |
| **High education** | ** | ** | | | | * |
| **Low education** | ** | *** | ** | ** | ** | *** |
| **Male*Wants to stay forever In the host country** | *** | *** | *** | *** | | ** |
| **Turkey** | *** | *** | *** | *** | *** | *** |
| **Italy** | | *** | | *** | | *** |
| **Poland** | | ** | | ** | | ** |
| **Ex-Yugoslavia** | | | | | | |
| **Greece** | | *** | | *** | | *** |
| **Russia** | * | *** | * | *** | * | *** |
| **Kazakhstan** | *** | | | | | |
| **Spain** | | | | | | |
| **Romania** | | *** | | ** | | *** |

Notes: *** = p<0.01; ** = p<0.05; * = p<0.1.

**Table 6. Significant individual event-type dummies**

| | Pooled estimates | Fixed-effect estimates |
|---|---|---|
| Positive significant cooperation news | Disc, Medi, Reqs, Dmob, Eass, Agac, Atse, Prai, Endo, Impr | Disc, Nego, Invi, Dmob, Eass, Endo, Impr |
| Negative significant conflict news | Mdem, Brel, Pmar, Ares, Blam, Said, Call | Pass, Proar, Said |

Notes: The event types are described in Appendices A2 and A3. The specification is identical to that in Table 3, but with individual news dummies replacing the Goldstein index. The regressor definitions appear in Table A1 of Appendix 2.

Appendix 1

**Article 16a [Right of asylum]**
(1) Persons persecuted on political grounds shall have the right of asylum.
(2) Paragraph (1) of this Article may not be invoked by a person who enters the federal territory from a member state of the European Communities or from another third state in which application of the Convention Relating to the Status of Refugees and of the Convention for the Protection of Human Rights and Fundamental Freedoms is assured. The states outside the European Communities to which the criteria of the first sentence of this paragraph apply shall be specified by a law requiring the consent of the Bundesrat. In the cases specified in the first sentence of this paragraph, measures to terminate an applicant's stay may be implemented without regard to any legal challenge that may have been instituted against them.
(3) By a law requiring the consent of the Bundesrat, states may be specified in which, on the basis of their laws, enforcement practices, and general political conditions, it can be safely concluded that neither political persecution nor inhuman or degrading punishment or treatment exists. It shall be presumed that a foreigner from such a state is not persecuted, unless he presents evidence justifying the conclusion that, contrary to this presumption, he is persecuted on political grounds.
(4) In the cases specified by paragraph (3) of this Article and in other cases that are plainly unfounded or considered to be plainly unfounded, the implementation of measures to terminate an applicant's stay may be suspended by a court only if serious doubts exist as to their legality; the scope of review may be limited, and tardy objections may be disregarded. Details shall be determined by a law.
(5) Paragraphs (1) through (4) of this Article shall not preclude the conclusion of international agreements of member states of the European Communities with each other or with those third states which, with due regard for the obligations arising from the Convention Relating to the Status of Refugees and the Convention for the Protection of Human Rights and Fundamental Freedoms, whose enforcement must be assured in the contracting states, adopt rules conferring jurisdiction to decide on applications for asylum, including the reciprocal recognition of asylum decisions.

**Appendix 2. Table A1. Descriptive statistics of the variables used in the regression analysis**

| Variable | | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| **Life Satisfaction** | Overall | 6.95 | 1.80 | 0 | 10 |
| | Between | | 1.45 | 0 | 10 |
| | Within | | 1.23 | -0.419 | 14.28 |
| **Log Real HH Inc** | Overall | 10.16 | 0.54 | 4.49 | 12.79 |
| *log of Real household income Equivalized with OECD scale* | Between | | 0.48 | 6.64 | 11.76 |
| | Within | | 0.31 | 5.40 | 12.75 |
| **Nchildren** | Overall | 0.97 | 1.20 | 0 | 10 |
| *Number of children < 18 years old* | Between | | 1.13 | 0 | 9 |
| | Within | | 0.53 | -4.16 | 6.66 |
| **Married** | Overall | 0.78 | 0.42 | 0 | 1 |
| *Omitted category: Single, not Living with a Partner* | Between | | 0.42 | 0 | 1 |
| | Within | | 0.16 | -0.148 | 1.70 |
| **Separated** | Overall | 0.019 | 0.14 | 0 | 1 |
| | Between | | 0.11 | 0 | 1 |
| | Within | | 0.10 | -0.815 | 0.942 |
| **Divorced** | Overall | 0.048 | 0.21 | 0 | 1 |
| | Between | | 0.19 | 0 | 1 |
| | Within | | 0.09 | -0.875 | 0.972 |
| **Widowed** | Overall | 0.035 | 0.18 | 0 | 1 |
| | Between | | 0.17 | 0 | 1 |
| | Within | | 0.06 | -0.888 | 0.952 |
| **Secondary-School Qualification** | Overall | 0.207 | 0.41 | 0 | 1 |
| *Omitted category: Dropout, No Qualifications* | Between | | 0.37 | 0 | 1 |
| | Within | | 0.17 | -0.709 | 1.12 |
| **Intermediate School Qualification** | Overall | 0.065 | 0.25 | 0 | 1 |
| | Between | | 0.24 | 0 | 1 |
| | Within | | 0.11 | -0.852 | 0.974 |
| **Technical School Qualification** | Overall | 0.018 | 0.13 | 0 | 1 |
| | Between | | 0.12 | 0 | 1 |
| | Within | | 0.06 | -0.871 | 0.818 |
| **Upper Secondary Qualification** | Overall | 0.050 | 0.22 | 0 | 1 |
| | Between | | 0.21 | 0 | 1 |
| | Within | | 0.08 | -0.859 | 0.883 |
| **Other Educational Qualification** | Overall | 0.455 | 0.50 | 0 | 1 |
| | Between | | 0.47 | 0 | 1 |
| | Within | | 0.22 | -0.434 | 1.38 |
| **In School** | Overall | 0.012 | 0.11 | 0 | 1 |
| | Between | | 0.17 | 0 | 1 |
| | Within | | 0.05 | -0.788 | 0.912 |

| | | | | | |
|---|---|---|---|---|---|
| **Full-Time Employment** | Overall | 0.458 | 0.50 | 0 | 1 |
| *Omitted category: Not Employed, Disabled Employed,* | Between | | 0.44 | 0 | 1 |
| *Maternity Leave, Near retirement, zero Working hours* | Within | | 0.26 | -0.465 | 1.38 |
| **Regular Part-Time Employment** | Overall | 0.075 | 0.26 | 0 | 1 |
| | Between | | 0.20 | 0 | 1 |
| | Within | | 0.18 | -0.848 | 0.998 |
| **Vocational Training** | Overall | 0.0205 | 0.14 | 0 | 1 |
| | Between | | 0.13 | 0 | 1 |
| | Within | | 0.11 | -0.779 | 0.944 |
| **Marginal Part-Time Employment** | Overall | 0.023 | 0.15 | 0 | 1 |
| | Between | | 0.11 | 0 | 1 |
| | Within | | 0.12 | -0.777 | 0.946 |
| **Military, Community Service** | Overall | 0.0018 | 0.04 | 0 | 1 |
| | Between | | 0.02 | 0 | 0.667 |
| | Within | | 0.04 | -0.665 | 0.925 |
| **Unemployed** | Overall | 0.099 | 0.30 | 0 | 1 |
| | Between | | 0.22 | 0 | 1 |
| | Within | | 0.23 | -0.790 | 1.02 |
| **Hospital Stay** | Overall | 0.117 | 0.32 | 0 | 1 |
| | Between | | 0.19 | 0 | 1 |
| | Within | | 0.28 | -0.740 | 1.04 |
| **East** | Overall | 0.015 | 0.12 | 0 | 1 |
| Dummy variable for living in East Germany | Between | | 0.12 | 0 | 1 |
| | Within | | 0.02 | -0.860 | 0.932 |
| **catmigr_1** | Overall | 0.054 | 0.23 | 0 | 1 |
| Dummy variable for years since migration< = 5 | Between | | 0.23 | 0 | 1 |
| Dummy variable for years since migration> 26 | Within | | 0.15 | -0.746 | 0.977 |
| **catmigr_2** | Overall | 0.317 | 0.47 | 0 | 1 |
| Dummy variable for years since migration 6 to 15 | Between | | 0.43 | 0 | 1 |
| | Within | | 0.24 | -0.592 | 1.24 |
| **catmigr_3** | Overall | 0.273 | 0.45 | 0 | 1 |
| Dummy variable for years since migration 16 to 25 | Between | | 0.37 | 0 | 1 |
| | Within | | 0.31 | -0.636 | 1.20 |

Notes: There are 27928 individual – time observations (person-year observations), covering 4343 different individuals; there are on average 6.4 observations per individual in the unbalanced panel.

**Table A2 Goldstein index weights**

| Variable | IDEA | label | Definition | WEIS | Weight |
|---|---|---|---|---|---|
| Aeri | 2239 | Missile attack | Launching of intermediate to long-range conventional ballistic | 223 | -10.00 |
| Clas | 2231 | Military clash | Ambiguous initiation of military hostilities or engagement between armed forces, includes truce violations (use as default for war and battles). | 223 | -10.00 |
| Raid | 2232 | Military raid | Initiation of the use of armed (military, police or security) forces to fire upon another armed force, population or territory. | 223 | -10.00 |
| Mocc | 2111 | Armed force | Use of armed forces to take over or | 211 | -9.20 |
| Sezr | 211 | Seize possession | Take control of positions or possessions. | 211 | -9.20 |
| Assa | 2228 | Assassination | Murder that is explicitly characterized as political killing and assassination. | 222 | -8.7 |
| Beat | 2221 | Beatings | Beatings (physical assaults without the use of weapons). | 222 | -8.7 |
| Maim | 2225 | Torture | Maiming and all other reports explicitly characterized as torture. | 222 | -8.7 |
| Pass | 222 | Physical assault | All uses of non-military physical force in assaults against people not otherwise specified. | 222 | -8.7 |
| Pexe | 2222 | Shooting | All shootings (firearm/handgun use) resulting in death or injury of a person or group of people. | 222 | -8.7 |
| Grpg | 2211 | Grenade/RPG use | Use of grenades or rocket-propelled grenades against a person, group or territory. | 221 | -8.3 |
| Bfor | 1822 | Military border fortification | Explicit attempt to publicly demonstrate military control over a border area. | 182 | -7.6 |
| Mdem | 182 | Military demonstration | All military demonstrations not otherwise specified. | 182 | -7.6 |
| Brel | 195 | Break relations | Formal severance of ties, including declarations of independence, divorce and protest resignations. | 195 | -7 |
| Mthr | 173 | Military force threats | All threats to use military force. | 173 | -7 |
| Tatt | 1731 | Threaten military attack | Explicit threat to use armed forces in a military attack or invasion. | 173 | -7 |
| Ulti | 174 | Give ultimatum | Threats conveyed explicitly as an ultimatum. | 174 | -6.9 |
| Tsan | 172 | Sanctions threat | Threats of non-military, non-force sanctions. | 172 | -5.8 |
| Heco | 1931 | Reduce or stop | Decrease or terminate provision of economic aid. | 193 | -5.6 |
| Reda | 193 | Reduce or stop aid | Reduction in or stopping of the giving of aid explicitly presented as a protest. | 193 | -5.6 |
| Pdem | 181 | Protest demonstrations | All protest demonstrations not otherwise specified. | 181 | -5.2 |

| | | | | | |
|---|---|---|---|---|---|
| Pmar | 1812 | Protest procession | Picketing and other parading protests. | 181 | -5.2 |
| Pobs | 1811 | Protest obstruction | Sit-ins and other non-military occupation protests. | 181 | -5.2 |
| Ppro | 1813 | Protest defacement | Dramatic performance protests, graffiti and desecration of symbols. | 181 | -5.2 |
| Exil | 20 | Expel | All expulsions. | 20 | -5 |
| Dema | 15 | Demand | All demands and issuances of orders. | 150 | -4.9 |
| Tuns | 171 | Non-specific threats | Threats without specific negative sanctions, including all intimidation, harassment and stalking. | 171 | -4.4 |
| Ares | 212 | Arrest and detention | All arrests and detentions not explicitly characterized as either political or criminal. | 212 | -4.4 |
| Crar | 2122 | Criminal arrests and detentions | Arrests and detentions explicitly characterized as criminal. | 212 | -4.4 |
| Poar | 2121 | Political arrests and detentions | Arrests and detentions, including those characterized as political. | 212 | -4.4 |
| Redr | 192 | Reduce routine activity | Reduction of routine and planned activities, including cancellations, recalls and postponements explicitly presented as a protest against the routine. | 192 | -4.1 |
| Bana | 1121 | Impose curfew | Declare martial law or curfew, and the imposition of all other similar restrictions on civil activities. | 112 | -4 |
| Cens | 1122 | Censor media | Limit, curb or intimidate the media, ban discussion of ideas, ban publishing of information. | 112 | -4 |
| Rall | 112 | Refuse to allow | Disagree or object, refuse to allow or acknowledge, restrict or suspend liberties. | 112 | -4 |
| Rpro | 111 | Reject proposal | Reject proposal or request. | 111 | -4 |
| Halo | 194 | Halt discussions | Halting of talks or other meetings not otherwise specified | 194 | -3.8 |
| Warn | 16 | Warn | All warnings not otherwise specified. | 160 | -3 |
| Fcom | 132 | Formally complain | Written and institutionalized protests and appeals, and all petition drives and recalls. | 132 | -2.4 |
| Blam | 121 | Criticize or blame | Allege, blame, find fault, hold accountable, censure, rebuke, "whistle blowing." | 121 | -2.2 |
| Icom | 131 | Informally complain | Verbal protests and rebukes, and all other informal complaints. | 131 | -1.9 |
| Gasy | 0631 | Grant asylum | Grant asylum. The reported receipt of such asylum grants constitutes a grant asylum event with actors reversed. | 63 | -1.1 |
| Shep | 063 | Provide shelter | Extend refuge or shelter to a victim or party in flight. This event form | 63 | -1.1 |

| | | | | | |
|---|---|---|---|---|---|
| | | | category contains sub-forms for more detailed coding whenever possible. | | |
| Deny | 14 | Deny | All denials. | 142 | -1.1 |
| Said | 02 | Comment | Event narrations and all comments not otherwise specified. | 23 | -0.2 |
| Call | 102 | Call for action | Urge others to mobilize and calls for action, aid or intervention in response to particular problems or disasters. | 102 | -0.1 |
| Decc | 021 | Decline comment | Explicit decline or refusal to comment on a situation. | 21 | -0.1 |
| Askp | 094 | Ask for protection | Ask for shelter or protection, seek asylum or request refugee status. | 94 | -0.1 |
| Said | 02 | Comment | Event narrations and all comments not otherwise specified. | 25 | 0 |
| Seek | 091 | Ask for information | Ask or search for information, carry out search warrants; includes all non-covert investigations. | 91 | 0.1 |
| Yord | 011 | Yield to order | Surrender, yield to order, submit to arrest, cede power. | 11 | 0.6 |
| Ypos | 012 | Yield position | Yield control of a location, retreat, give up possession of material. | 12 | 0.6 |
| Disc | 031 | Discussions | Meetings (at any location), consultations and negotiations, in person or via telecommunications; includes talks, exchanges of gifts and other formal communications. | 31 | 1 |
| Medi | 0311 | Mediate talks | Mediate between two or more parties; the source of this event | 31 | 1 |
| Nego | 0312 | Engage in | Negotiate with other parties on particular issues. | 31 | 1 |
| Reqs | 09 | Request | All requests not otherwise specified. | 95 | 1.2 |
| Ptru | 101 | Offer peace proposal | Offer incentives for peace, suggest talks, propose resolution or truce or cease-fire, offer to mediate. | 101 | 1.5 |
| Gran | 06 | Grant | All grants not otherwise specified. The reported receipt of such grants constitutes a grant event with actors reversed. | 61 | 1.8 |
| Visi | 032 | Travel to meet | The act of traveling to visit another location for a meeting or other event. Also includes the return travel. | 32 | 1.9 |
| Rele | 066 | Release or return | Release of people from detention or arrest, pardons, amnesties and commutations; also includes return of property. | 66 | 1.9 |
| Rrpe | 0661 | Return, release | Release people from detention, arrest or abduction. | 66 | 1.9 |
| Yiel | 01 | Yield | All yielding not otherwise specified. | 13 | 2 |
| Invi | 062 | Extend invitation | Extend an invitation to visit. The reported receipt of such invitations constitutes an extend invitation event with actors reversed. | 62 | 2.5 |
| Assr | 054 | Assure | Assure or reassure that some promised or ongoing support or positive interest will continue. | 54 | 2.8 |

| | | | | | |
|---|---|---|---|---|---|
| Host | 033 | Host a meeting | Hosting a visitor at one's residence, office or home country. | 33 | 2.8 |
| Dmob | 0654 | Demobilize armed forces | Stand down or withdrawal of military, police or crowd control forces, reduce or eliminate arms or weapons. | 65 | 2.9 |
| Eass | 065 | Ease sanctions | Interrupt, suspend, terminate or lessen a non-physical (force) sanction, reduce fine or penalty, return property and withdrawal of troops. | 65 | 2.9 |
| Rsan | 0653 | Relax administrative sanction | Lifting, relaxation or lessening of administrative sanctions or penalties, including capital and corporal punishment. | 65 | 2.9 |
| Agac | 082 | Agree or accept | Accept invitations, agree to a proposal, future action (including scheduled truces), suggestion or request. | 82 | 3 |
| Atse | 0824 | Agree to | Agree to or express willingness to accept a comprehensive peace | 82 | 3 |
| Sols | 092 | Solicit support | Request political support or solicit political influence, including electoral campaigning and lobbying. | 92 | 3.4 |
| Aske | 0931 | Ask for economic aid | Specific request for economic assistance. | 93 | 3.4 |
| Askh | 0933 | Ask for humanitarian aid | Specific request for humanitarian assistance. | 93 | 3.4 |
| Aski | 0932 | Ask for military aid | Specific request for military assistance. | 93 | 3.4 |
| Askm | 093 | Ask for material aid | Ask for material assistance, economic aid and armaments. | 93 | 3.4 |
| Reme | 0935 | Request mediation | Solicit, ask or call for third party/ies to mediate. | 93 | 3.4 |
| Rfin | 0934 | Request an investigation | Request an investigation or inquiry. | 93 | 3.4 |
| Rwcf | 0936 | Request withdrawal | Request withdrawal or ceasefire. | 93 | 3.4 |
| Prai | 041 | Praise | Praise, hail or laud someone, something or some practice/policy. | 41 | 3.4 |
| Endo | 04 | Endorse | All endorsements not otherwise specified. | 42 | 3.6 |
| Prom | 05 | Promise | All promises not otherwise specified. | 53 | 4.5 |
| Proo | 051 | Promise policy support | Promise of non-material support. | 51 | 4.5 |
| Prms | 052 | Promise material support | Promise of material support, including economic or financial assistance, armaments or military assistance or emergency relief supplies or assistance. | 52 | 5.2 |
| Impr | 064 | Improve relations | Begin, improve or resume an activity or relations, extend diplomatic or other formal recognition. | 64 | 5.4 |
| Ehai | 073 | Extend humanitarian aid | Extending non-military / non-economic assistance, including civil training, development assistance, education & training. The reported receipt of such aid constitutes an extend aid event with actors reversed. | 73 | 6.5 |
| Agre | 08 | Agree | All agreements not otherwise specified. | 81 | 6.5 |
| Eeai | 071 | Extend economic aid | Extending (must include the delivery) monetary aid and financial | 71 | 7.4 |

| | | | | | |
|---|---|---|---|---|---|
| | | | guarantees, grants, gifts and credit. The reported receipt of such aid constitutes an extend aid event with actors reversed. | | |
| Emai | 072 | Extend military aid | Extending military and police assistance, including arms and personnel, includes both military and police peacekeeping. The reported receipt of such aid constitutes an extend aid event with actors reversed. | 72 | 8.3 |

**Appendix A2. News reports by the Cooperation / Conflict index according to the IDEA framework typologies**

**<u>Cooperation index</u>**:

1. Agree (IDEA 08): *agre, agac, atse, coll*

- Agree or accept not specified above (*agre*): Accept invitations and proposals, not otherwise specified.
- Agree or accept (*agac*): Accept invitations and proposals, not otherwise specified.
- Agree to settlement (*atse*): Agree to or express willingness to accept a comprehensive peace proposal, settlement or resolution.
- Collaborate (*coll*): Form alliance, or associate with, merge, join, accompany, and coordinate activities; includes extraditions.

2. Consult (IDEA 03): *cons, disc, medi, nego, visi, host*

- Discussion (*disc*): Meetings (at any location), consultations and negotiations, in person or via telecommunications; includes talks, exchanges of gifts and other formal communications.
- Mediate talks (*medi*): Mediate between two or more parties; the source of this event form is the mediator.
- Engage in negotiation (*nego*): Negotiate with other parties on particular issues.
- Travel to meet (*visi*): The act of travelling to visit another location for a meeting or other event. Also includes the return travel.
- Host a meeting (*host*): Hosting a visitor at one's residence, office or home country.
- Consult (*cons*): All consultations not otherwise specified.

3. Endorse (IDEA 04): *endo, prai, empa, apol, forg, rati*

- Praise (*prai*): Praise, hail or laud someone, something or some practice/policy.
- Empathise (*empa*): Express condolences, offer sympathy; includes attending funerals and other similar ceremonial events.
- Apologize (*apol*): Express regret or remorse for an action or situation.
- Forgive (*forg*): Express forgiveness and explicitly conciliatory actions to rebuild a relationship or rectify a situation. Includes pardons and the granting of amnesty.
- Ratify a decision (*rati*): Ratify or accede to an agreement or treaty; the target of a ratify event is the decision or document being ratified as opposed to the parties to the agreement.
- Endorse (*endo*): All endorsements not otherwise specified.

4. Grant (06): *gran, invi, shep, gasy, evac, impr, eass, rsan, dmob, rele, rrpe.*

- Grant (*gran*): All grants not otherwise specified. The reported receipt of such grants constitutes a grant event with actors reversed.
- Extended invitation (*invi*): Extend an invitation to visit. The reported receipt of such invitations constitutes an extend invitation event with actors reversed.
- Provide shelter (*shep*): Extend an invitation to visit. The reported receipt of such invitations constitutes an extend invitation event with actors reversed.
- Grant asylum (*gasy*): Grant asylum. The source of this interaction is the "protector" and the target of the interaction is the "protectee."

- Evacuate victims (*evac*): The removal of victims or their remains. The reported receipt of victims or remains constitutes a remove victims event with actors reversed.
- Improve relations (*impr*): Begin, improve or resume an activity or relations, extend diplomatic or other formal recognition.
- Ease sanctions (*eass)*: Interrupt, suspend, terminate or lessen a sanction, reduce fine or penalty, return property and withdrawal of troops.
- Relax administrative sanction (*rsan*): Lifting, relaxation or lessening of administrative sanctions or penalties, including capital and corporal punishment.
- Demobilize armed forces (*dmob*): Stand down or withdrawal of any armed force (includes military, police, crowd control, insurgent forces), reduce or eliminate arms or weapons.
- Relax or return (*rele*): return, release not otherwise specified.
- Return, release person(s) (*rrpe*): Release people from detention, arrest or abduction.

*5.* Promise (IDEA 05): *prom, proo, prms, prmm, prmh, assr.*
- Promise (*prom*): All promises not otherwise specified.
- Promise policy support (*proo*): Promise of non-material support.
- Promise material support (*prms*): Promise of material support, including economic or financial assistance, armaments or armed assistance or emergency relief supplies or assistance.
- Promise military support (*prmm*): Promise of armaments or military assistance.
- Promise humanitarian support (*prmh*): Promise of emergency relief supplies or assistance.Assure (*assr*): Assure or reassure that some promised or ongoing support or positive interest will continue.

*6.* Reward (IDEA 07): *rewd, eeai, emai, ehai, sral.*
- Reward (*rewd*): All rewards not otherwise specified. The reported receipt of such rewards constitutes a reward event with actors reversed.
- Extend economic aid (*eeai*): Extending (must include the delivery) monetary aid and financial guarantees, grants, gifts and credit. The reported receipt of such aid constitutes an extend aid event with actors reversed.
- Extend military aid (*emai*): Extending military and police assistance, including arms and personnel, includes both military and police peacekeeping. The reported receipt of such aid constitutes an extend aid event with actors reversed.
- Extend humanitarian aid (*ehai*): Extending non-military / non-economic assistance, including civil training, development assistance, education & training. The reported receipt of such aid constitutes an extend aid event with actors reversed.
- Rally support (*sral*): Gatherings to express or demonstrate support, celebrations and all other public displays of confidence; includes protest vigils and commemorations.

*7.* Yield (IDEA 01): *yiel, yord, ypos.*
- Yield (*yiel*): All yielding not otherwise specified.
- Yield to order (*yord*): Surrender, yield to order, submit to arrest, cede power.
- Yield position (*ypos*): Yield control of a location, retreat, give up possession of material.

**Conflict index**:

1. Accuse (IDEA 12): *blam*

- Criticize or denounce (*blam*): Blame, find fault, censure, rebuke, "whistle blowing," vilify, defame, denigrate, condemn and name-calling.

2. Complain (IDEA 13): *comp, icom, fcom*

- Complain (*comp*): All disapprovals, objections and complaints not otherwise specified.
- Informally complain (*icom*): Verbal protests and rebukes, and all other informal complaints.
- Formally complain (*fcom*): Written and institutionalized protests and appeals, and all petition drives and recalls.

3. Demand (IDEA 15): *dema, deii, dewi*

- Demand (*dema*): All demands and issuances of orders.
- Demand information (*deii*): Require or demand information or investigation.
- Demand policy support (*deps*): Require or demand policy (non-tangible) support.
- Demand aid (*deai*):Require or demand assistance or (material) support.
- Demand protection, peacekeeping (*depk*): Require or demand protection in form of military, police, or peacekeeping monitors/observers.
- Demand mediation (*deme*): Require or demand that a third party to mediate a conflict.
- Demand withdrawal (*dewi*): Require or demand withdrawal from an area.
- Demand ceasefire (*decf*): Require or demand halting of military engagement.
- Demand meeting (*demn*): Require or demand that a party meet to discuss or negotiate.
- Demand rights (*deri*): Require or demand civil, political, cultural, socio-economic or human rights in general for persons or groups.

4. Demonstrate (IDEA 18): *pdem, pobs, pmar, ppro, mdem, bfor*

- Demonstrate (*demo*): Demonstrations not otherwise specified.
- Protest demonstrations (*pdem*): All protest demonstrations not otherwise specified.
- Protest obstruction (*pobs*): Sit-ins and other non-military occupation protests.
- Protest procession (*pmar*): Picketing and other parading protests.
- Protest defacement (*ppro*): Damage, sabotage and the use of graffiti to desecrate property and symbols.
- Protest altruism (*palt*): Protest demonstrations that place the source (protestor) at risk for the sake of unity with the target.
- Armed force mobilization (*mdem*): All armed force mobilizations not otherwise.
- Armed force activation (*mobl*): Activation of all or part of previously inactive armed forces.
- Border fortification (*bfor*): Explicit attempt to publicly demonstrate control over a border area.

5. Deny (IDEA 14): *deny*

- Deny (*deny*): All denials of accusations.

6. Expel (IDEA 20): *exil*

- Expel (*exil*): All expulsions. Banning, deporting and exiling people.

7. Force Use (IDEA 22): *pass, beat, maim, raid, clas, assa, pexe, grpg, aeri, riot, conc*

- Physical assault (*pass*): All uses of non-armed physical force in assaults against people not otherwise specified.
- Beatings (*beat*): Beatings (physical assaults without the use of weapons).
- Torture (*maim*): Maiming and all other reports explicitly characterized as torture. Contrast this force used to extract information from physical sanctions for punishment (2223).
- Armed actions (*raid*): Ambiguous initiation of the use of armed forces to fire upon another armed force, population or territory.
- Armed battle (*clas*): Initiation of armed hostilities or engagement between two or more armed forces, includes truce violations (use as default for war and battles).
- Assassination (*assa*): Murder that is explicitly characterized as political killing and assassination.
- Small arms attack (*pexe*): Shooting of small arms, light weapons and small explosives, including the use of all handguns, light machine guns, rifles and hand grenades.
- Artillery attack (*grpg*): Use of short to intermediate range tank-mounted, ship-based or field guns and cannons, mortars and rocket-propelled grenades.
- Missile attack (*aeri*): Launching of intermediate to long-range conventional ballistic missiles and aerial dropping of conventional explosive devices or bombs.
- Riot (*riot*): Civil or political unrest explicitly characterized as riots, as well as behaviour presented as tumultuous or mob-like. This behaviour includes looting, prison uprisings, crowds setting things on fire, general fighting with police (typically by protestors), lynch mob assemblies, ransacking offices, embassies, etc., football riots and stampedes.
- Crowd control (*conc*): Mobilization or use of compliance force by police, military and others for crowd control.

8. Reject (IDEA 11) *rejc, rpro, rall, bana, cens, defy, hide, open, blaw*

- Reject (*rejc*): All rejections not otherwise specified
- Reject proposal (*rpro*): Rejections of particular proposals not otherwise specified.
- Refuse to allow (*rall*): Disagree or object, refuse to allow or acknowledge, restrict or suspend liberties.
- Impose restrictions (*bana*): Declare martial law or curfew, and the imposition of similar political restrictions on civil activities.
- Impose censorship (*cens*): Limit or curb any expression of ideas, including material, objects that are considered obscene, objectionable or harmful.
- Defy norms (*defy*): Open defiance of laws and norms, civil disobedience. Also includes the establishment of alternative institutions.
- Political flight (*hide*): Flee, hide, defect or escape from capture or seizure.
- Disclose information (*open*): Publicly reveal personal or sensitive information, to "out" someone.
- Break law (*blaw*): All crime where the threat or use of force is not involved; includes "white collar" crime.

9. Sanction (IDEA 19): *sanc, redr, reda, heco, halo, brel, stri, dwar.*

- Sanction (*sanc*): All sanctions not otherwise specified.
- Reduce routine activity (*redr*): Reduction of routine and planned activities, including cancellations, recalls and postponements typically presented as a protest against the routine.
- Reduce or stop aid (*reda*): Reductions or terminations of aid not otherwise specified.
- Reduce or stop economic assistance (*heco*): Decrease or terminate provision of economic aid.
- Halt discussions (*halo*): Halting of talks or other meetings not otherwise specified.
- Break relations (*brel*): Formal severance of ties, including declarations of independence, divorce and protest resignations.
- Strikes and boycotts (*stri*): Labour and professional sanctions reported as strikes, general strikes, walkouts, withholding of goods or services and lockouts.
- Declare war (*dwar*): Formal or official statement that a state of war exists.

10. Seize (IDEA 21): *seiz, sezr, mocc, ares, poar, crar, jack, htak, moni*
- Seize (*seiz*): All seizures not otherwise specified.
- Seize possession (*sezr*): Take control of positions or possessions.
- Armed force occupation (*mocc*): Use of armed forces to take over or occupy the whole or part of a territory.
- Arrest and detention (*ares*): All arrests and detentions not explicitly characterized as either political or criminal.
- Political arrests (*poar*): Arrests and detentions, explicitly characterized as political.
- Criminal arrests (*crar*): Arrests and detentions explicitly characterized as criminal.
- Hijacking (*jack*): All commandeering of vehicles.
- Hostage taking and kidnapping (*htak*): Hostage taking or kidnapping of people.
- Covert monitoring (*moni*): Spying and other covert intelligence gathering operations.

11. Threaten (IDEA 17): *thrt, tuns, tsan, mthr, tatt, ulti, nmft*
- Threaten (*thrt*): All threats, coercive warnings not otherwise specified.
- Non-specific threats (*tuns*): Threats without specific negative sanctions, including all intimidation, harassment and stalking.
- Sanctions threat (*tsan*): Threats of non-military, non-physical force social, economic and political sanctions.
- Armed force threats (*mthr*): All threats to use armed force.
- Threaten forceful attack (*tatt*): Explicit threat to use armed forces in an attack or invasion.
- Give ultimatum (*ulti*): Threats conveyed explicitly as an ultimatum.
- Other physical force threats (*nmft*): All threats to use non-armed, physical force.

Apart from the index of conflict and cooperation, other IDEA categories may be relevant for bilateral relations between Germany and migrant home countries:

Request (IDEA 09): *reqs, seek, sols, askm, aske, aski, askh, rfin, reme, rwcf, call, askp.*
- Request (*reqs*): All requests not otherwise specified.
- Investigate (*seek*): Investigate, not otherwise specified

- Solicit support (*sols*): Request political support or solicit political influence, including electoral campaigning and lobbying.
- Ask for material aid (*askm*): Ask for material assistance, economic aid and armaments.
- Ask for economic aid (*aske*): Specific request for economic assistance.
- Ask for armed assistance (*aski*): Specific request for armed assistance, including peacekeeping forces.
- Ask for humanitarian aid (*askh*): Specific request for humanitarian assistance.
- Request an investigation (*rfin*): Request an investigation or inquiry.
- Request mediation (*reme*): Solicit, ask or call for third party/ies to mediate.
- Request withdrawal or ceasefire (*rwcf*): Request withdrawal or ceasefire.
- Call for action (*call*): Urge others to mobilize politically and calls for social action.
- Request protection (*askp*): Ask for shelter or protection, seek asylum or request refugee status.

Propose (IDEA 10): *prop, ptru, ptmn*

- Propose (*prop*): All proposals not otherwise specified.
- Offer peace proposal (*ptru*): Offer incentives for peace, suggest talks, propose resolution.
- Offer to Negotiate (*ptmn*): Propose or put forth plans to meet, negotiate or discuss a situation or an issue.

Warn (IDEA 16): *warn, aler, malt, incc, mdis, ndis, tdis*

- Warn (*warn*): All warnings.
- Alerts (*aler*): All alerts
- Armed force alert (*malt*): Reported increase in the readiness of any armed force.
- Security alert (*incc*): The release of information relevant to citizen safety, generally initiated at the national level. This includes the issuing of Amber alerts, raising of the Terror Threat Level, precautionary evacuations of embassies, buildings, personnel, and the like.This also relates to the discovery any ams or dangerous situations (e.g., discovery of unexploded ordnance).
- Armed force display (*mdis*): All armed force displays not otherwise specified.
- Armed force naval display (*ndis*): Public demonstrations, maneuvers, exercises or testing of naval armed forces not involving combat operations.
- Armed force troops display (*tdis*): Public demonstrations, maneuvers, exercises or testing land based armed forces not involving combat operations.

Economic Activity (IDEA 23)

- Economic activity (*econ*): All economic activities not otherwise specified, but excluding economic assistance
- Government transactions (*gcta*): Government transactions (ex. Egypt bought 120,000 tonnes of U.S. soft red winter wheat for loading between June 1-15.)
- Private transactions (*ccta*): Cargo carrier Atlas Air Inc. expects to buy five to seven new jumbo jets.
- Transactions (*trans*): All economic transactions not otherwise specified, but excluding economic assistance.

Human Death (IDEA 42)

- Human death (*deat*): Includes discovery of human remains. Includes suicides, unless the suicide is in the context of protest. Note that deaths ascribed to causes that are represented by another event form are coded to those forms. With the exception of generic suicides (where the person committing suicide is coded at once as the source and target actor) there will never be a source actor for this event category. (Ex. The person who dies will always be the target actor of the Human death event category. Because the mayor is the "recipient," of the death in this example, he is the target of this event coding. No source actor is specified in this sentence, nor, with the exception of suicides, should a source ever be specified in a Human death coding. Had a cause of death been specified (e.g., illness, accident, murder, etc.), the event form would shift to the appropriate Human illness, Accident or Physical assault event category).

Other Human Action (IDEA 29)

- Executive adjustment (*gadj*): All routine executive adjustments, including hirings and terminations, in both the public and private sector. Includes all routine appointments and resignations, as well as downsizing and the inability to pay workers. Downsizing of an armed force is coded to Demobilize armed forces.
- Judicial actions (*liti*):
- other human actions (*ohac*)

Human Condition (IDEA 49)

- Other human condition (*hcon*): Other human condition (Ex. Many Russians live in dire poverty).

Comment (IDEA 02)

- Comment (*said*): Event narrations and all comments not otherwise specified. Comments are remarks or observations that explain or express something; when what is said is represented by another event form, this other event form should be coded as well. In these attributed event reports, the comment serves to narrate the other (primary) event form in the sentence. Such narrations, especially at the end of sentences, are quite common in Reuters news reports.
- Sports contest (IDEA 99): Sport (Ex. Two British hot-air balloonists trying to circle the world non-stop set a new world record on Saturday for the longest continuous flight without being refuelled from another aircraft.)

Economic status (IDEA 42)

- Earnings below (*eabx*)
- Balance of payment (*bops*)