

Communication effects, ethnicity, and support for secessionism in stateless nations: results from a survey experiment in Catalonia

Post-print version of the following publication: | Versione post-print della seguente pubblicazione:

*Original Citation/Citazione:*

Guidi, Mattia; Karagiannis, Yannis. (2014). Communication effects, ethnicity, and support for secessionism in stateless nations: results from a survey experiment in Catalonia. no. RSCAS 2014/43. <http://cadmus.eui.eu/handle/1814/31873>

*Availability/Disponibilità:*

This version is available at: [11385/147368](#) since: 2015-06-15T09:04:26Z - Questa versione è disponibile alla pagina: [11385/147368](#) dal: 2015-06-15T09:04:26Z

*Publisher/Casa editrice:*

*Published version/Pubblicato:*

*License/Licenza:*

Attribution-NonCommercial-NoDerivs 3.0 Italy

*Availability/Termini d'uso:*

The terms and conditions for the reuse of this version of the manuscript are specified in the publishing policy. Works made available under a Creative Commons license can be used according to the terms and conditions of said license. For all terms of use and more information see the publisher's website. | I termini e le condizioni relativi al riutilizzo della presente versione della pubblicazione sono disciplinati dalla politica editoriale. Le opere messe a disposizione con licenze Creative Commons possono essere utilizzate conformemente ai termini e alle condizioni previste da tali licenze. Per l'insieme delle condizioni di utilizzo e per ulteriori informazioni si rinvia al sito web dell'editore.

This item was downloaded from IRIS Luiss (<https://iris.luiss.it/>). When citing, please refer to the published version. | Questo documento è stato scaricato da IRIS Luiss (<https://iris.luiss.it/>). Per la citazione, fare riferimento alla versione pubblicata sul sito dell'editore.

(Article begins on next page | Il contributo inizia nella pagina successiva)



European  
University  
Institute

ROBERT  
SCHUMAN  
CENTRE FOR  
ADVANCED  
STUDIES

# WORKING PAPERS

RSCAS 2014/43

Robert Schuman Centre for Advanced Studies

Communication effects, ethnicity, and support for  
secessionism in stateless nations: results from a survey  
experiment in Catalonia

Mattia Guidi and Yannis Karagiannis



European University Institute  
**Robert Schuman Centre for Advanced Studies**

**Communication effects, ethnicity, and support for secessionism  
in stateless nations: results from a survey experiment in  
Catalonia**

Mattia Guidi and Yannis Karagiannis

EUI Working Paper **RSCAS** 2014/43

This text may be downloaded only for personal research purposes. Additional reproduction for other purposes, whether in hard copies or electronically, requires the consent of the author(s), editor(s). If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the working paper, or other series, the year and the publisher.

ISSN 1028-3625

© Mattia Guidi and Yannis Karagiannis, 2014

Printed in Italy, June 2014

European University Institute

Badia Fiesolana

I – 50014 San Domenico di Fiesole (FI)

Italy

[www.eui.eu/RSCAS/Publications/](http://www.eui.eu/RSCAS/Publications/)

[www.eui.eu](http://www.eui.eu)

[cadmus.eui.eu](http://cadmus.eui.eu)

## **Robert Schuman Centre for Advanced Studies**

The Robert Schuman Centre for Advanced Studies (RSCAS), created in 1992 and directed by Brigid Laffan since September 2013, aims to develop inter-disciplinary and comparative research and to promote work on the major issues facing the process of integration and European society.

The Centre is home to a large post-doctoral programme and hosts major research programmes and projects, and a range of working groups and *ad hoc* initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration and the expanding membership of the European Union.

Details of the research of the Centre can be found on:

<http://www.eui.eu/RSCAS/Research/>

Research publications take the form of Working Papers, Policy Papers, Distinguished Lectures and books. Most of these are also available on the RSCAS website:

<http://www.eui.eu/RSCAS/Publications/>

The EUI and the RSCAS are not responsible for the opinion expressed by the author(s).



## **Abstract**

Over the past twenty years or so, economic and cultural interdependence has gone hand in hand with the rise of nationalism, particularly in stateless nations. For example, Catalan politics has increasingly focused on the issue of secession from the rest of Spain. As in Flanders, Quebec, Scotland, and elsewhere, the ensuing polarization of opinion creates two questions of paramount importance for social scientists: (a) How strong are individual preferences? and (b) what determines these preferences? To answer these questions, we use a custom-designed survey experiment ( $N = 913$ ) which allows us to estimate the effect of frames net of confounding effects, and to determine other determinants of preferences. We find that frames matter even in polarized political times and when voters have had enough time to form their judgement on a given issue. We also detect a strong role for ethnicity, measured as the number of Catalan-speaking grandparents and language spoken at home, as well as for the geographical scope of professional activity. Our findings help challenge the economic approach to politics, whereby agents hold well-defined and constant preferences, and give support to the view that both short- and long-run constructivist elements play a crucial role in centrifugal political movements.

## **Keywords**

Catalonia, secessionism, individual preferences, frames, ethnicity





## 1. Introduction

It is a truism that since the fall of the Berlin Wall and the commencement of the economic reforms undertaken by Deng Xiaoping in China, the world has entered an accelerated period of globalization. Yet, whereas economic, cultural, and even political analysts all agree that national sovereignties are on the waning, some groups manage to overcome their collective action problems and reclaim with force what is supposedly lost forever. Among them, nationalist movements in stateless nations are particularly interesting, for they challenge *both* the assimilationist economic and cultural forces of globalization *and* the centralizing political forces of the states in which they operate. Against such forces, their success depends crucially on the strength of their preferences, as well as on the legitimacy of their arguments.

To study these issues, we focus on the case of Catalonia. Over the past decade Catalonia has witnessed nothing short of a spectacular rise in the level of popular support for secession from Spain. Less than ten years ago, the share of secessionists neighboured only about 15% (CEO 2009); and experts of nationalism/secessionism viewed Spain as a stabilized democracy where centrifugal forces had been successfully accommodated (Brancati 2006: 652; Smith 2008: 26). Not any more. In the winter of 2013-14 most estimates situated support for secession around, and often even above, 50% (e.g. CEO 2013; Muñoz and Tormos 2014).

The rise of secessionism in Catalonia is of crucial importance not only inside, but also outside that part of Spain. If Catalan secessionism ever attained its goals, Spain would become one of first, if not *the* first advanced industrialized democracy to lose one of its richest and geopolitically most important regions. Advanced democracy and/or industrialization status would cease being seen as sufficient conditions preventing secession. Furthermore, the secession of Catalonia would certainly have repercussions in the Basque country, and perhaps even in Galicia, too. It might also have important consequences on secessionist movements elsewhere in Western Europe, such as Scotland, Flanders, or Northern Italy. And, even if the process of independence turned out to be smooth, it would create a series of complex juridical, political and economic issues for the European Union. Gaining an in-depth understanding of the extent, nature, and dynamics of the current movement in Catalonia is thus crucial.

This article contributes to such an understanding by presenting new findings from a survey experiment conducted among nine-hundred Catalan citizens of voting age in January 2013. Of course, by focusing on public opinion we omit other aspects of the politics of Catalan independence. We do acknowledge these, as well as the fact that modern democracies are ruled by far more than just public opinion (Tsebelis 2002). In the case of Catalonia, for example, institutional veto players whose explicit acquiescence would be necessary to bring about full sovereignty and international recognition include the Spanish Parliament, the Spanish Constitutional Tribunal, the five Permanent Members of the United Nations Security Council, and at least some powerful governments of other EU member states.<sup>1</sup> Still, public support for secession is the first necessary, and most highly symbolic, step in such a process. As such, it does influence the bargaining position of most, if not all relevant domestic and international actors.

Note that most positive research on nationalism and secessionism takes either a historical or a macro-political perspective where the nation is treated as a unitary actor (e.g. Breuilly 2013; Smith 2006, 2008; and Alesina and Spolaore 2003; Brancati 2006; Horowitz 1981; Keating and Wilson 2009; Sorens 2012). In this vein, scholars often write about Catalonia as “a nation aspiring to independence” (Boix 2003: 167), about Spain as acting “against Catalonia” (Centre d’Història

---

<sup>1</sup> Some, on both sides of the secessionist argument, have also claimed a role for the Spanish army. Nevertheless, the (conservative and unionist) central government has formally ruled out this possibility, and has attempted to send credible signals to that effect – e.g. La Vanguardia 24/10/2012.

Contemporània de Catalunya 2013), or about the fact that “What Catalans Want” is that Catalonia becomes “Europe’s next state” (Strubell 2011). On the other hand, Sorens has warned that “speaking of collectives as if they were unitary actors does [...] distort reality.” (2012: 6) A few studies try avoiding that problem by focusing on individual-level data, particularly from Québec (e.g. Howe 1998; Mendelsohn 2003; Nadeau et al. 1999), but very recently also in Catalonia (Muñoz and Tormos 2014). We seek to contribute to that strand of the literature, which we view as a necessary complement to the more macro-comparative perspective.

Our starting theoretical point is current work aimed at understanding the nature of public opinion, and more specifically the vulnerability of voters’ preferences to manipulative messages (e.g. Chong and Druckman 2010; Hansen 2007; Sniderman and Theriault 2004). This allows us to focus not only on the determinants of individual preferences (e.g. do individuals support secession because they would personally benefit from it economically?), but also on the strength of such preferences (e.g. is a preference for secession stable, or does new information affect it?). If we find preferences to be strong, as they might very well be given the salience of the issue and the temporal proximity of the Catalan parliamentary elections of November 2012, we will have discovered a limit to short-term constructivist theories and processes; if, on the other hand, we find them to be weak and manipulable even in this least-likely case, then we will have gone a long way in understanding the complexities of social and political dynamics, as opposed to economic processes where actors hold (or are assumed to hold) strong and inalterable preferences. We therefore set out to answer two questions: (a) Quite beyond our estimations regarding the percentage of secessionist support in Catalonia, is that support as stable as preferences are assumed to be in economic theory, or it is vulnerable to framing and manipulation? And (b), assuming at least some secessionist supporters hold truly strong and stable preferences, what is the role played by ethnic, and economic considerations therein?

As it turns out, we find that framing matters, as do ethnicity and economic considerations. Regarding framing, we find that respondents are sensitive to all the different formulations that we test: a positive frame increases the likelihood of support for independence; a negative one yields the opposite effect; and a two-way one increases the chances of opposing independence. This is consistent with a developing body of literature which finds that people respond positively to one-sided messages and become more moderate when they receive competing views. Although we do not, and cannot, claim that framing is responsible for the rise of secessionism, we do, and think we can, argue that framing effects show that (a) Catalan public opinion is still not completely settled, and (b) framing effects play a role in terms of how people respond to the question of whether they favour secession.

Regarding ethnicity, we find that the number of one’s Catalan-speaking grand-parents and the language spoken at home explain a significant proportion of the variation of the dependent variable, too. This finding suggests that, despite their respective claims to be civic movements, both Catalanism and “españolismo” maintain a strong ethnic component. Finally, regarding economic considerations, we find that citizens whose economic activities focus mainly on Catalonia are more likely to support secession than are citizens whose economic activities bind them to the rest of Spain. Whatever side of the debate one may be on, this finding has obvious and far-reaching policy implications.

The rest of this article is organized as follows. Section 2 reviews some of the relevant literature and presents our main hypotheses. Section 3 offers some methodological explanations regarding the methodology of survey experiments and how it was implemented in our case, as well as regarding various other more standard issues. Section 4 presents the data and the empirical analysis. Section 5 concludes.

## **2. Concepts, theory, and hypotheses**

This section theorizes individual preferences regarding the secession of Catalonia from Spain, and presents our main hypotheses. Our theoretical view is based on our conceptualization of the “Catalan

question” as a non-trivial but nevertheless ambivalent political issue. This interpretation allows us to focus away from more essentialist and therefore “strong” theories of nationalism, which cannot easily accommodate short-run constructivist effects such as those predicted by framing theory. At the same time, we also assume that framing effects explain only so much of the variation in observed opinion. Other factors we deem relevant are ethnicity, economic repercussions of secession, and experience with the rest of Spain.

The beginning of our reasoning is the question of whether individuals’ opinions about Catalan secession (a rather ambivalent political issue) should be treated like if they were opinions on, say, consumption (i.e. rather straight-forward economic issues). The examples of the American war of independence in the eighteenth century, the Greek war of independence in the nineteenth century, and the wars on the partitioning of Yugoslavia in the twentieth century all seem to show that people can hold strong views on matters of national self-determination – to the point of being willing to kill and be killed for it. Closer to our case, the spokespersons of the Catalan executive and the secessionist non-governmental organization *Assemblea Nacional de Catalunya* often allude to the life-and-death nature of the issues at stake (e.g. *El País* 11/12/2013; Forcadell 2013).

On the other hand, choosing between supporting the unity of Spain or the independence of Catalonia may not be like choosing between wine and beer for dinner, or like choosing between remaining an English colony with no representation in Westminster and fighting for the independence of the United States. What makes the Catalan case differ is that, despite some actors holding strong anti-Spanish preferences and other holding strong anti-Catalan ones, their normative arguments cannot be mistaken for accurate descriptions of public opinion as a whole. In fact, a certain number of peculiarities may render individual attitudes towards secession particularly uncertain, fluctuating, and manipulable.<sup>2</sup> First, although Catalan nationalism feeds on economic grievances, Catalonia is comparatively wealthier than the United States in the 1770s, or Scotland or Quebec today. Second, although General Franco’s dictatorship was equally oppressive of all peripheral nationalisms in Spain, democracy led to different kinds of politics, with Catalonia benefitting from a considerably more peaceful (and therefore also less policed) setting. Third, even if all developed regions with a strong secessionist movement are complex, pluri-ethnic societies, few host such a big minority as the Spanish community in Catalonia. And finally, although secessionist territories might all need to (provisionally) give up membership of international organizations such as the European Union or the North American Free Trade Agreement, only a few would pay for it such a high price as Catalonia would. Because they define what is at stake, these peculiarities of the Catalan case should also affect the nature of individual preferences.

Consider, for example, the difficulty to pigeonhole Catalan nationalism according to existing typologies of nationalist/secessionist movements as Sorens’ (2012). Sorens draws a typology which distinguishes between advantaged and minority nationalisms. On the one hand, advantaged nationalisms seek to maintain the security of the nation against either external threats (imperialism, irredentism, xenophobia, or protectionism), or internal threats (centralism, state-building, assimilationism). On the other hand, minority nationalisms aim at reunion (irredentism), autonomy (autonomism, independentism, or anti-imperialism), or recognition with unity (regionalism). According to Sorens, secessionism is clearly a minority claim for autonomy (autonomism or independentism) (Sorens 2012: 9-11). Yet, classifying Catalan secessionism under that rubric neglects its state-building, assimilationist, and majority-irredentist dimensions, which are all traits of advantaged nationalisms (e.g. Climent 2011; *El Punt/Avui* 23/12/2013; *La Vanguardia* 10/08/2013,

---

<sup>2</sup> Our argument here is a political science argument about the nature of public opinion under certain circumstances. Our focus is on the strength and stability of the preferences of the average citizen in Catalonia, not on whether she/he favours secession. We claim neither that some citizens do not hold strong or very strong preferences (they certainly do), nor that the whole current political situation in Catalonia is due to a top-down process (as many “españolistas” conclude). We wish to underscore this point and thereby distinguish our analytical claim from one-sided partisan claims.

30/12/2013). Individual Catalan citizens may therefore think of the secessionist movement as an advantaged-nationalism movement, as a minority-nationalism movement, or indeed as both – i.e. without needing to choose.

Catalanist and *españolista* prejudices (in Gadamer's sense of irrationally strong preferences which impede judgment – see Gadamer 1975) are called in doubt not only by the aforementioned hybrid nature of Catalan nationalism, but also by the ambivalence of Spanish nationalism itself. True, Spanish nationalism often assumes an assimilationist and therefore anti-Catalanist attitude. Moreover, it is frequently perceived as impeding the internationalization of the Catalan economy and the consolidation of the Catalan culture (see contributions in Strubell 2011), and as limiting democratic rights of self-determination – a fact which has been hailed by Catalan nationalists as a “factory of secessionists” (La Vanguardia 14/12/2013). Such grievances doubtless lead many Catalan nationalists to adopt secessionist attitudes. Yet, like their *españolista* counterparts, Catalan secessionist attitudes need not be based on prejudice: they can be overturned by informed judgment. Regarding secessionist attitudes, for example, their holders may exercise judgment about the fact that (a) Spain is a consolidated democracy where political freedoms are guaranteed by the Constitution and fully respected in practice (Economist Intelligence Unit 2012); (b) important acts of devolution have periodically occurred despite their obvious centrifugal potential – including in such sensitive areas as education (Brancati 2006; Gellner 1981: 757); and (c) making use of these rights and powers, Catalan nationalists have been free to develop a discourse, a strategy, and a presence in the public sector and in the media which is normally associated with advantaged nationalisms. Similarly, regarding *españolista* attitudes, their holders may exercise judgment about Catalonia's chronic “fiscal deficit”, the extreme popularity of policies aimed at preserving Catalan as a language, or the freedom of Catalan national teams to participate in official international tournaments.

These and other ambivalences of Spanish and Catalan nationalisms, we submit, cause people to be receptive to competing discourses, and to therefore entertain only moderately strong views at any moment in time. This leaves the door open to framing effects, defined as “changes in people's attitudes toward an object due to communications which alter the weights people give to competing considerations” (Druckman 2001: 231). Indeed, public opinion scholars have repeatedly found that a frame is effective when (a) it resonates with people's values; and (b) no competing frame cancels out the effect of the first one (see Chong and Druckman 2010 and references therein).

In the case of Catalonia, the aforementioned ambivalence of Spanish nationalism (and concomitantly, of Catalan nationalism) may weaken individuals' preferences, in the sense that these become susceptible to change as their holders receive new messages. Rather than holding long-standing attitudes (for example, due to the on-going presence of a repressive police state, a situation of relative poverty compared to the rest of Spain, or even just a one-sided policy of centralization) many Catalans may construct their preferences when needed by drawing on accessible information – that is, by allowing themselves to be framed.

The effect of frames may depend on temporal issues, too. For example, an *españolista* Catalan who receives two competing messages simultaneously may process them in such a way that they cancel each other off; but if she receives competing messages across different periods of time, then the accessibility of previous arguments may decay, while the impact of posterior arguments may increase (see generally Chong and Druckman 2010). In the case of Catalonia, given the relative weakness of the unionist discourse and the dominance of the secessionist one over the last years (e.g. La Vanguardia 17/10/2013, 24/01/2014) the number of pro-secession supporters may actually reflect the effectiveness of such framing effects more than the sheer strength of their preferences. In short, relaxing the assumption that the national question in Catalonia is a clear-cut confrontation between supporters and detractors of Catalanism allows us to hypothesize the presence of significant framing effects, such as those routinely found by experimenters in sub-fields other than the study of nationalism (e.g. Chong and Druckman 2007, 2010; Gaines et al. 2007; Hiscox 2006).

Such a proposition is not trivial. In his influential study of secessionist public opinion in Québec, Howe found that attitudes were largely irrational in the sense that they both depended on national identification and were therefore resistant to change (Howe 1998). Catalan nationalist intellectuals, political scientists, and historians have long argued that for ethnic, linguistic, or economic reasons, Catalans hold strong, unalterable preferences for secession (e.g. Alexandre 1999; Boix 2003: 167; Strubell 2011). Conversely, Spanish nationalists warn that secessionist messages produce long-term, hard-to-counter effects (see *El País* 31/05/2013, 22/11/2013; *La Vanguardia* 02/06/2010, 20/12/2013). In contrast, we rely on the view that when individuals hold relatively weak attitudes and cease receiving campaign messages,

“as a general rule, communication effects will decay over time as the considerations behind the opinion become less accessible. An important consequence of decay is that sequential competition between frames will result in ‘recency’ effects rather than cancellation of opposing effects.”  
(Chong and Druckman 2010: 665)

More generally, as regards framing effects, we hypothesize that:

*H1: The kind of frame that people are exposed to affects the probability of declaring themselves in favour or against independence.*

Obviously, in this theoretical framework, the precise effect of frames is conditional on the persuasiveness of the frame and the attributes of the frame’s recipients. We thus expect at least some recipients to *not* respond to frames – i.e. to carry strong, long-standing attitudes. The causes behind such attitudes may be numerous, but the literature has focused on mainly two: economic interests and ethnicity.

Regarding economic interests, we already mentioned above that Howe found they had only a negligible impact on support for secession in Quebec (Howe 1998). Nevertheless, other scholars have made opposite claims. Based on macro theory and data, Alesina and Spolaore (2003), and Boix (2003) find that relatively wealthy regions benefit from, and therefore seek secession from relatively poorer regions which they subsidize. More detailed empirical analyses of micro data have come to the same conclusion, namely that economic expectations matter (e.g. Mendelsohn 2003).

Concerning the economic interests explanation, Muñoz and Tormos (2014) add two important points. From the point of view of theory, they argue that inter-regional inequalities may be part of the story, but that they fail to account for important differences in preferences for secession at the individual level – i.e. within one territory. This is particularly relevant for Catalonia, which is a wealthier-than-average Spanish community where secession may nevertheless not be a clearly majoritarian option. Further, from the point of view of the empirical methodology used to study secessionist opinion, Muñoz and Tormos address the well-known problem of rationalization (i.e. the inverse causation, whereby preferences on secession cause economic expectations rather than the other way round) by running a survey experiment. Their analysis of the data thus produced supports for the idea that “rational” factors matter.

In this paper, we take this point further, by hypothesizing that attitudes towards independence are not influenced by views on the economic outlook in general, but rather by personal economic interests. Given that a unilateral declaration of independence from Catalonia would probably damage trade relationships with the rest of Spain, we expect people whose job or business depends on intra-state trade to oppose independence for this reason. This formulation has the advantage of avoiding any possible source of endogeneity or reverse causality: while opinions on how the economy goes or economic outlooks are shaped both by personal considerations and by political and ideological attitudes, the respondent’s current (not future) dependence from trade with the rest of Spain is a more objective and exogenous measurement. Our second hypothesis is hence that:

*H2: The more a person's job or business depends on good trade relationships with the rest of Spain, the higher the probability that this person is against Catalan independence.*

The last determinant of attitudes towards independence that we take into account is ethnicity. Ethnic and cultural factors have not been cast aside by modern age: they still play an important role in many countries' politics. Many modern nations were conceived as communities of people belonging to the same ethnic/cultural group and sharing common political objectives (Smith 2010), and a "resurgence of ethnicity" (Smith 1993: 48) has been observed worldwide after the end of Cold War (Eriksen 2002: 164). In the case of Québec, French language has been found to be the main determinant of pro-independence attitudes (Howe 1998). The reason why we deem it important to test if such a relationship also exists in the Catalan case is that, according to our knowledge and understanding, the Catalan independence movement is a true nationalist movement, based both on an objective element (a different culture and language) and on a subjective one (a political action that translates these differences in a claim for self-government).<sup>3</sup>

As Weber argued (1922 [1978]), ethnic groups have been defined and studied as communities that *perceive* to be something distinct from other groups. Without some political action "linked to some antagonism against members of an obviously different group" (Weber 1922 [1978]: 385), we cannot talk about nationalism (see also Kedourie 1993). Catalan nationalism, as we have argued, has been successful in building up a growing political consensus for the secessionist option. However, this does not mean that all individuals have been affected by this process to the same extent. Intuitively, the construction of a Catalan national identity should have been more successful among those who share the "objective" element of nationalism, i.e. those who grew up in a Catalan-speaking family. We do not doubt that the relationship between perceiving oneself as part of a community and supporting the independence of that community from the rest of the country might be not univocal – as has been argued, among others, by Hierro (2012) and Muñoz and Tormos (2014). In other words, it is highly plausible that people may declare themselves Catalan *because* they support Catalan independence, and not vice versa. However, by referring to the "objective" element of nationalism, the linguistic one, we are confident that we can isolate the "ethnic" determinant of secessionism. Our third hypothesis is therefore that:

*H3: The more a person is part of the ethnic Catalan community, the higher the probability that this person is in favour of Catalan independence.*

### 3. Methodology, data and operationalization

Beyond testing the effect of frames in such salient policy areas as secession (see also Moñoz and Tormos 2014), our main contributions to the understanding of secessionist movements in consolidated democracies are methodological. First, rather than relying on extant official data, this article is based on original data collected by street-polling in January 2013. We interviewed 913 adults in Barcelona and its metropolitan area (around 45% of the total), and in the cities of Lleida (15%), Tarragona (18%) and Girona (22%). Second, to investigate the strength of individual preferences, respondents were randomly assigned four different introductions which they had to read to before taking the survey. Roughly one fourth of the questionnaires featured a positive introduction, stressing the advantages of Catalan independence from the rest of Spain; one fourth featured a negative one, which highlighted the political and economic risks related to a secession; one fourth featured a combined introduction giving both views on independence; lastly, one fourth contained no introduction at all. The questionnaire included 15 questions in total. Third, the survey was printed and administered in both official

---

<sup>3</sup> The right to self-government is tightly linked to any nationalist idea or movement (Kedourie 1993), and Catalan nationalism is no exception.

languages (Catalan and Castilian), allowing respondents to switch whenever they wished. For the actual wording of the frames, and of the main question, see Appendix 1.

The survey methodology and the practical collection of responses were aimed at minimizing any bias in the data – though we do acknowledge that some solutions create their own problems. First, the survey was conducted in January 2013, i.e. only a few weeks after the Catalan parliamentary elections of 25 November 2012, which were fought almost exclusively on the national issue. This is theoretically and methodologically important because it allows us to investigate the power of constructivist effects at a moment when people have had the chance to reflect, inform, and position themselves on that issue. Any framing effects we observe should therefore be entirely due to the treatment, and not to environmental interferences. Second, the survey was administered face-to-face, so that no personal information of the respondents (such as phone number or address) was made available to pollsters. Third, pollsters were foreign, patently not belonging to any state or regional organization. With this collection method, we intended to minimize the probability both of sample self-selection and of inaccurate or insincere responses. That said, the places where responses were gathered might be a potential source of bias, as we surveyed people in the centre of the four biggest cities of Catalonia. We did not survey peripheral neighbourhoods or other (smaller) cities, in which interviewees may have had different distributions of responses. However, (a) big city centres attract voters from the periphery, too; and (b) our main goal is not to ascertain how many Catalans are in favour or against independence, but rather how they react to frames.

Regarding the frames, i.e. the formulation of the introductions to surveys, we were careful in avoiding any reference to “experts”, “scholars”, or other authorities arguing in favour or against independence. We did so because in that case we would have juxtaposed two possible types of influence: an “authoritative argument” one, and a more substantive one. Respondents might have been influenced both by the merits of the statement and by the fact that the statement was presented as an expert judgement, and it would not have been possible to disentangle the two effects. We also avoided what Gaines et al. (2007: 10) call “accidental spillover effects”, which occur when the responses to some questions are influenced by those to previous questions. In our survey, the questions on Catalan independence came first, right after the introduction; all other questions regarded personal features of the respondents, not likely to be influenced by framing or by previous answers.

Besides the question on personal support for Catalan independence, we collected information on other variables that are likely to affect respondents’ attitudes towards independence. As regards the impact of the economic dimension (which we employ to test Hypothesis 2), we asked information about the respondent’s professional dependence on the rest of Spain.<sup>4</sup> Our assumption is that those who have stronger economic ties with Spain will be less in favour of secessions. Following a similar rationale, we also gathered data on the number of trips outside Catalonia (in the rest of Spain), in order to control for the relationship with the rest of country (be it more economic or more social<sup>5</sup>).

Another dimension that may influence opinions on secession is, as we have seen for Hypothesis 3, the ethnic one. In this respect, we decided to employ two distinct indicators: the number of Catalan-speaking grandparents, and the language spoken at home. Regarding the first, it is a rather simple but effective proxy for the ethnic origins of respondents, and it has never been used in similar studies, to our knowledge. The other proxy indicates the main cultural community to which the respondent perceives to belong. Ethnicity is not just “blood”, but also (mainly) culture, language, sense of being part of a social group. With these two indicators, we aim to capture both dimensions. Other controls that we employed are age, sex, education, vote in last elections, religious attitude and whether the respondent is resident or not in Catalonia.

---

<sup>4</sup> The question was “Do you depend in your job on relations with (the rest of) Spain?”. Possible responses were: “not at all”, “a little”, “rather”, “a lot”.

<sup>5</sup> Because, for instance, the respondent has relatives living in other regions of Spain.



#### 4. Statistical analysis and discussion of results

Before we illustrate how we test the hypotheses put forward in Section 2, we present some descriptive statistics showing the effect of frames. Table 1 reports the percentages of respondents who answered “yes” to the question regarding their support for Catalan independence from (the rest of) Spain. Even at first sight, the framing effect is rather pronounced. In the whole sample, people supporting independence are about a half of the respondents. The anti- and pro-independence introductions significantly affect the percentage of positive answers, while with a two-way introduction the result is very close to that of the whole sample. As regards the percentage of *yeses* when no introduction was given, it is sensibly higher than both the percentage with both introductions and the overall value of the sample: this points to the existence of a general pro-independence attitude in the population (or, better said, in the Catalan political environment).

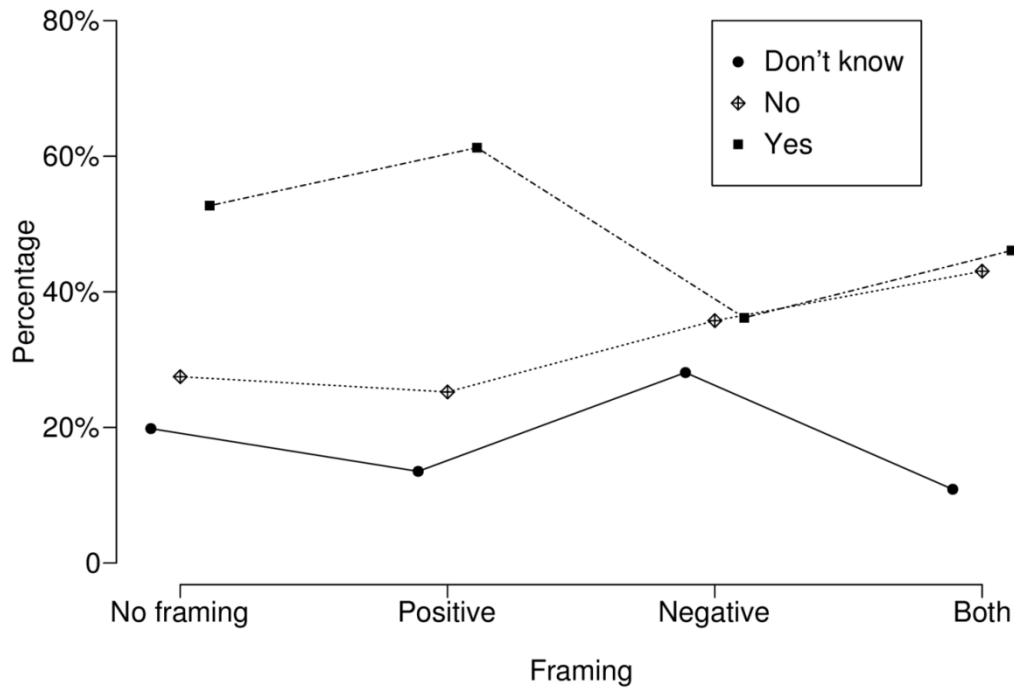
*Question: Are you in favour of the independence of Catalonia from (the rest of) Spain?*

**Table 1: Percentages of respondents who are in favour of Catalan independence**

<i>All respondents</i> (N = 913)	48%
<i>No introduction</i> (N = 223)	52%
<i>Anti-independence introduction</i> (N = 236)	36%
<i>Pro-independence introduction</i> (N = 222)	61%
<i>Mixed introduction</i> (N = 232)	46%

The variation in the responses can be better grasped by looking at Figure 1, which includes also “no” and “don’t know” answers. Both are quite interesting to analyse. As regards negative answers, we came across a result that we did not expect in the first place – i.e. that the percentage of *noes* is considerably higher (43%) with the mixed introduction than when independence is negatively framed (36%). Two (not mutually exclusive) interpretations can be given for this finding. The first is that, because the negative statement came after the positive one (see note 4), its effect systematically prevailed over that of the positive statement (so-called “recency effect”). It must be noted, however, that positive answers increase as well compared to those given with the negative framing. The second interpretation is that, because independence in Catalonia is a very sensitive issue at the moment, and because the Catalan democratic institutions openly support the request of independence, some people tend to be suspicious of narratives perceived as “not mainstream”. In other words, since the pro-independence position is mainstream, some tend to reject anti-independence points of view because they perceive them as biased, while they are more willing to consider them when coupled with opposite arguments that make them look more impartial.

**Figure 1: Percentages of responses for the four different introductions**



As regards “don’t know” answers, their frequency higher than we expected in such a highly debated and not “technical” (at least, not in the formulation proposed in our survey) issue. This does not denote a lack of knowledge, but rather an uncertainty due to the difficulty in choosing between conflicting values (self-determination vs. cross-regional support, political change vs. stability). When no introduction is assigned, one fifth of the interviewees choose to not answer the question. The percentage decreases when the mixed introduction is given – meaning that such framing is seen as informative and it makes the reader more confident in his opinion. With the anti-independence framing, vice versa, the percentage of “don’t know” peaks at 28%. This indicates, once again, that the negative framing is perceived by most respondents more as propaganda than as information, and, although fewer people answer “yes”, they prefer to “abstain” rather than to answer “no”.

We now turn to analyse more in depth the determinants of the personal attitude towards independence. As argued in Section 2, various factors can affect each individual’s tendency to support or oppose secession. The main effects on which we focus in our three hypotheses are the influence of framing, and the influence of personal economic considerations and ethnicity. In order to choose how to model the data, we have considered that the questionnaire’s framing has an impact not only on positive and negative answers, but also on abstentions, as Figure 1 shows. Therefore, we deem that “don’t know” answers cannot be treated as independent from the framing. This means that focusing on *yeses* and *noes* only (modelling the responses as a binary variable) would make us miss relevant information. We find it instead more appropriate to analyse the determinants of all of the three distinct outcomes. For this reason, we estimate a multinomial logistic regression model, in which the dependent variable is an unordered categorical variable – the answer to the question “Are you in favour of the independence of Catalonia from Spain?” – with three discrete outcomes ( $Y_i = \text{“Yes”} \mid Y_i = \text{“No”} \mid Y_i = \text{“Don’t know”}$ ). We test four different specifications of our model with different sets of explanatory and control variables (see Table 2).<sup>6</sup>

<sup>6</sup> Models were estimated with the packages Zelig 3.5.4 (Imai et al. 2008, Imai et al. 2009) and nnet (Venables and Ripley 2002) in R (R Core Team 2013).

**Table 2: Multinomial logistic regression models**

## Multinomial logit models

	<i>Dependent variable: Are you in favour of the independence of Catalonia from (the rest of) Spain?</i>							
	No (1)	Yes (2)	No (3)	Yes (4)	No (5)	Yes (6)	No (7)	Yes (8)
Framing [positive]	0.337 (0.312)	0.376 (0.286)	0.223 (0.315)	0.642** (0.295)	0.249 (0.317)	0.593** (0.298)	0.594* (0.347)	0.789** (0.322)
Framing [negative]	-0.176 (0.268)	-0.812*** (0.263)	-0.218 (0.273)	-0.737*** (0.277)	-0.240 (0.273)	-0.757*** (0.278)	0.200 (0.303)	-0.697** (0.300)
Framing [both]	0.913*** (0.311)	0.450 (0.303)	0.940*** (0.313)	0.465 (0.314)	0.910*** (0.313)	0.450 (0.314)	1.201*** (0.345)	0.648* (0.338)
Trade dependence	0.015 (0.099)	-0.326*** (0.100)	-0.043 (0.100)	-0.189* (0.105)	-0.027 (0.101)	-0.210** (0.106)	-0.095 (0.107)	-0.285** (0.112)
Catalan-speaking grandparents	-0.231*** (0.071)	0.348*** (0.065)			-0.114 (0.083)	0.089 (0.080)	-0.113 (0.088)	0.098 (0.085)
Language spoken at home [Catalan]			-0.627** (0.313)	1.262*** (0.263)	-0.451 (0.334)	1.132*** (0.284)	-0.510 (0.354)	0.986*** (0.302)
Language spoken at home [Castilian]			0.605** (0.253)	-1.099*** (0.287)	0.544** (0.258)	-1.053*** (0.290)	0.549* (0.280)	-1.165*** (0.315)
Language spoken at home [other]			-0.018 (0.502)	0.131 (0.488)	-0.131 (0.510)	0.230 (0.496)	-0.359 (0.543)	0.152 (0.515)
Long visits to (rest of) Spain	0.152*** (0.049)	0.031 (0.051)	0.134*** (0.050)	0.085 (0.053)	0.137*** (0.050)	0.081 (0.053)	0.105** (0.052)	0.050 (0.056)
Voted in last election	0.725*** (0.238)	0.940*** (0.242)	0.675*** (0.247)	1.061*** (0.266)	0.702*** (0.248)	1.037*** (0.267)	0.642** (0.268)	1.015*** (0.287)
Education	-0.009 (0.037)	-0.048 (0.036)	0.009 (0.038)	-0.076** (0.037)	0.009 (0.038)	-0.075** (0.037)	0.034 (0.042)	-0.070* (0.041)
Age	-0.008 (0.007)	-0.006 (0.007)	-0.007 (0.007)	-0.010 (0.007)	-0.007 (0.007)	-0.010 (0.007)	-0.012 (0.008)	-0.009 (0.008)
Religion							0.133*** (0.041)	-0.006 (0.041)
Resident in Catalonia							0.349 (0.497)	-0.513 (0.536)
Constant	0.312 (0.656)	0.884 (0.639)	-0.315 (0.721)	1.364* (0.715)	-0.197 (0.725)	1.275* (0.719)	-1.152 (0.933)	1.822** (0.925)
N	880	880	878	878	877	877	788	788
Akaike Inf. Crit.	1,604.05	1,604.05	1,459.22	1,459.22	1,455.15	1,455.15	1,293.49	1,293.49
McFadden's Pseudo R <sup>2</sup>	0.16	0.16	0.24	0.24	0.25	0.25	0.34	0.34

Note: Multinomial logistic regression. Estimates' significance: \*p<0.1; \*\*p<0.05; \*\*\*p<0.01

In the first model (columns 1 and 2), we test our three hypotheses using the number of Catalan-speaking grandparents as a proxy for ethnicity. We also control for the number of visits to the rest of

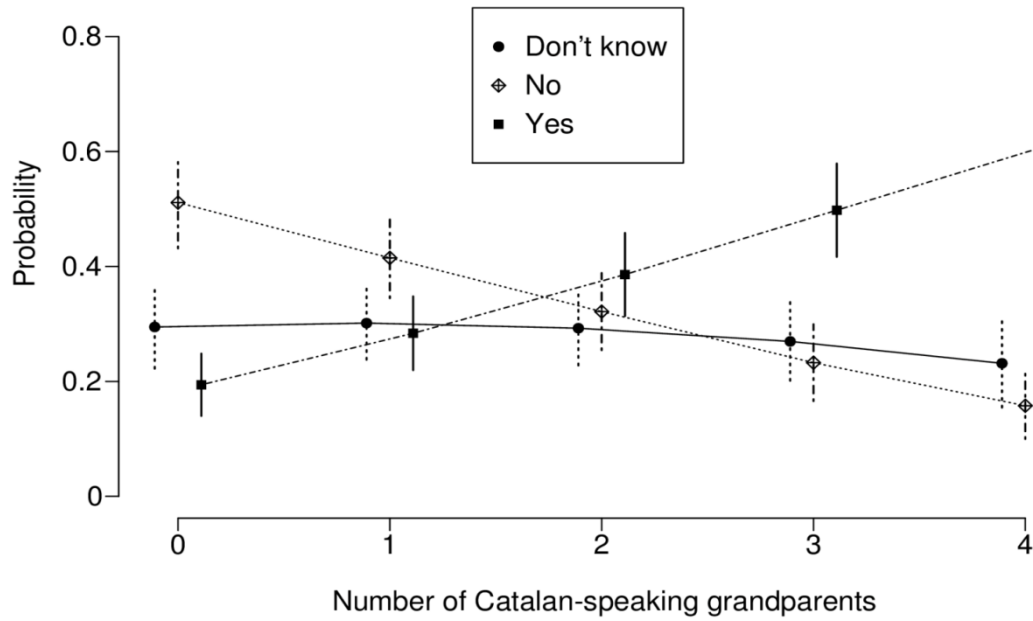
Spain, participation to 2012 election, age and education. We find that negative and mixed introduction significantly affect the chances of being, respectively, in favour or against independence – compared to the chances of abstaining. In particular, when respondents are assigned the negative framing, the probability that they answer “yes” is about half of when no framing is given. When instead respondents are given the mixed framing, their probability of answering “no” is more than twice than when no framing is given. These coefficients remain significant and consistent through all models, thus confirming H1. Also the effect of the second explanatory variable is in line with our hypothesis (H2): economic dependence has a negative effect on *yeses*, meaning that respondents whose economic activity depends on good relationships with the rest of Spain tend to be more cautious towards secession. Also this effect is significant regardless of different model specifications. The results of the regression confirm our third hypothesis (H3) as well: the higher the number of Catalan-speaking grandparents, the lower the probability of *noes* and the higher the probability of *yeses*. Figure 2 illustrates this relationship.<sup>7</sup> As we can see, the difference between a respondent with no Catalan-speaking grandparents and another with four is striking: the former has a 20% probability of answering “yes” and a 51% probability of answering no; the latter has a 61% probability (+41) of answering “yes” and a 16% probability (–35) of answering “no”.

In Model 2, 3 and 4 (columns from 3 to 8), we test the effect of the second variable that we employ to measure ethnicity, the language spoken at home. In Model 2 we drop the grandparents indicator, while in Models 3 and 4 we use both variables together. Model 4 also includes some additional controls. The results confirm the impact of ethnic factors: respondents who belong to the “Spanish community” are more likely to be against secession than those belonging to the “Catalan community”, and vice versa. As the effect of the number of Catalan grandparents becomes not significant when the language variable is added to the model, we can conclude that language is an intervening variable in this case: ethnic origins determine, to a large extent, the language used by people in everyday life, which in turn affects attitudes towards independence. The effect of the language spoken at home on the attitudes towards secession is clearly illustrated in Figure 3: Catalan-speaking respondents have a 60% probability of being in favour of independence and only a 17% probability of being against; the proportion is more or less the opposite for Castilian-speaking respondents, who have a 9% probability of answering “yes” and a 62% probability of answering “no”. For respondents speaking both languages at home and for those speaking other languages there is no significant difference between the likelihood of the responses.

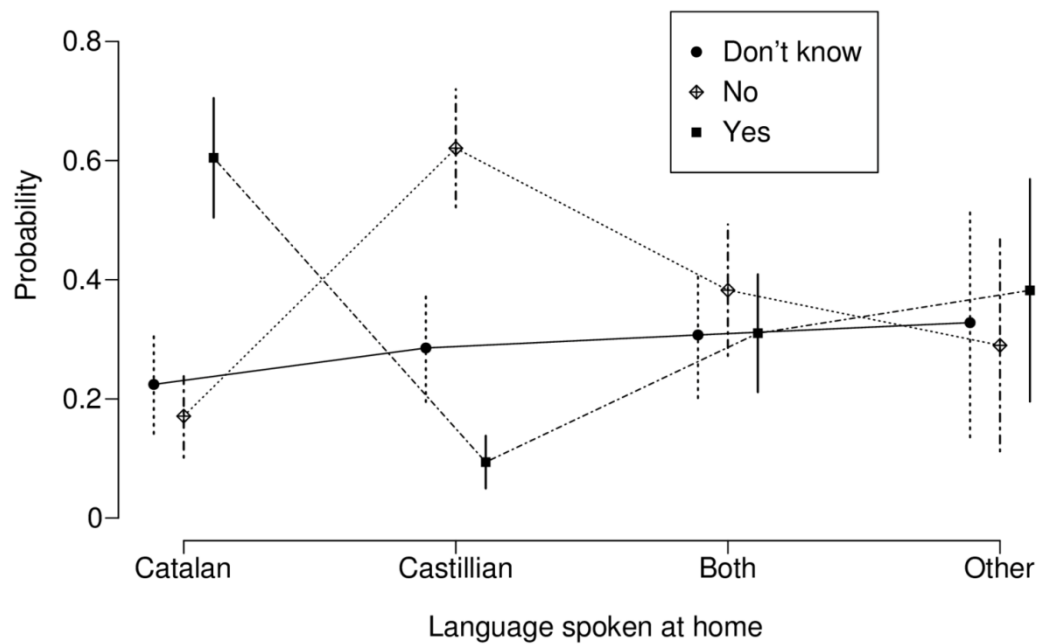
---

<sup>7</sup> The data used for drawing the graphs in Figure 2, 3 and 4 have been estimated through stochastic simulation using the package Zelig 3.5.4 in R.

**Figure 2: Expected values of the three responses with different number of Catalan-speaking grandparents (vertical lines denote 95% confidence intervals) [simulation based on Model 1]**



**Figure 3: Expected values of the three responses with different number of Catalan-speaking grandparents (vertical lines denote 95% confidence intervals) [simulation based on Model 4]**



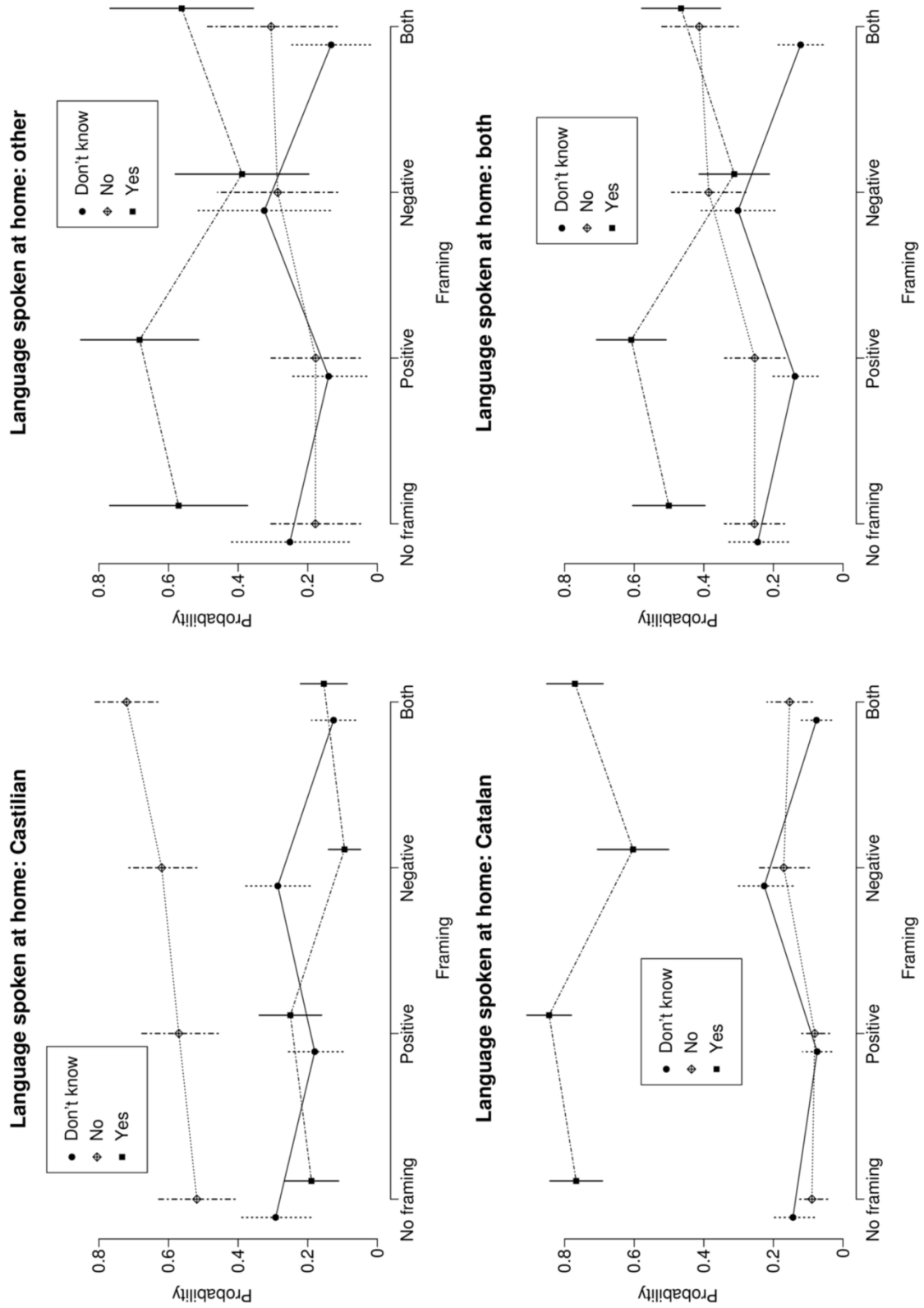
It is also interesting to observe how introductory statements affect different subsets of the population (see Table 4). In particular, while for *yeses* and “don’t know” answers we find similar patterns of framing effects in all subgroups, for “no” responses we note a strikingly distinct reaction to framing of the Castilian-speaking group. In all subgroups, *yeses* increase with the positive framing, decrease with the negative framing and increase again with the mixed one (though not at the level of the positive framing). Conversely, abstentions decrease with the positive introduction, increase with the negative one and decrease again with the two-way framing. *Noes*, on average, are higher with both the negative and the mixed introduction. However, the Castilian-speaking subset responds differently from all the others under the positive framing: despite an introduction that describes independence as a positive outcome for all Catalan people, negative responses *increase*. Although further research would be needed in order to properly explain this finding, we advance the interpretation that Castilian-speakers are to some extent suspicious of statements in favour of independence, and therefore resist being framed. It is worth noting that even in the other subgroups there is no negative effect on *noes* of the positive framing. This means that the positive introduction has an impact that is almost equivalent to the lack of any introduction. In other words, the positive framing seems to be already embedded in the political environment.

With regard to the control variables employed in this empirical analysis, their impact is in general the one that we expected. Personal relationships (not only economic ones) with the rest of Spain matter: the more people have lived for some time in the rest of Spain, the more they tend to be against Catalan independence. Respondents that have voted in the previous elections are more likely to choose either response rather than abstaining, since they are more interested in politics and more politically involved. Another interesting effect is that of education: although the effect is not strongly significant in Model 4 and would therefore require additional investigation, every further year of education seem to decrease the probability of being in favour of independence. Finally, respondents are more likely to be against secession the more religious they are.

## **5. Concluding remarks**

Our empirical analysis has confirmed the three hypotheses that we had put forward. The proof that frames matter (and do so to a relevant extent) even in a simple, clear-cut question like that of Catalan secession from Spain is surely the most important finding of this paper. Contrarily to what is claimed by some politicians and scholars, Catalan people do not appear to hold fixed and stable preferences with regard to this issue. We also found, like previous studies on similar cases had proved, that economic and ethnic factors still play a role. Many people’s attitude towards independence relies on personal economic concerns about the future of their job or business. This entails that there is some consensus on the fact that the possible transition to independence might be neither smooth nor easy to implement. The importance of ethnic determinants must also not be underestimated. The results we have illustrated tell us that belonging to a certain ethnic group does not only affect the probability of being in favour or against independence; it also produces different framing effects: positive or negative views on Catalan secession are successful when they resonate with the respondents’ prior beliefs.

**Figure 4: Framing effect for subsets of the sample selected by language spoken at home (vertical lines denote 95% confidence intervals) [simulation based on Model 4]**



More in general, the power of frames pointed out by this analysis reveals that debates on independence in Catalonia take place in a very fluid environment. Although our experiment was conducted after a period in which the voters' awareness on this issue was meant to be at its maximum, we still observe high uncertainty among the respondents. In our view, three main reasons can account for this finding. The first is that being in favour or against independence is a simple choice only at first sight. It may be an easy choice for those who carry strong ideological preferences, but for most people who have to make their decision considering pros and cons of each option, the factors to consider are many, and their choice is not straightforward. This connects to the second reason we identify, i.e. that the rise of the secessionist option has been so rapid that voters' opinions on this issue have so far been based mainly on emotional motives, rather than on rational considerations: Catalonia finds itself in a political situation where recent changes have not yet been fully rationalized (cf. Schofield 2002). Finally, the uncertainty of voters about alternative political options might signal the lack of a thorough and informative debate, as if ideological and partisan positions (on both sides) had so far hindered any attempt to discuss Catalan independence constructively.

One final remark concerns the relevance and the validity of our results. Based on Chong and Druckman (2010), we mentioned that survey experiments do not allow researchers to control for the length of the framing effect. It might well be that the introductions have an immediate impact on responses given a few seconds after reading them, but that this effect quickly vanishes and voters return to their prior beliefs. Assuming that this were the case, would our analysis still be relevant? We believe so, because frame effects need not be prolonged to be effective. If we think of a context in which frames matter the most – election campaigns – we see that in the period preceding elections all parties attempt to influence the voters' perceptions on the issues that they deem most important. Election campaigns are also decided by more or less successful framing. During campaigns citizens are so continuously exposed to frames until the end that it is difficult to argue that the parties' framing strategies do not affect the voters' final choice. If this is true, it is also true that once a successful framing strategy has been crystallized in a vote, it will exert its effects on institutions for quite a long period of time (usually several years). This effect would be even more significant in the case of a vote on secession, in which the possible impact of framing might last (virtually) forever. Hence we maintain that, be their effect more or less prolonged, framing strategies are very likely to have an extended influence on political institutions. This is why their impact is worth studying, especially where the issues at stake are of great importance and the political environment is particularly unstable, like in Catalonia nowadays.



## References

- Alesina, Alberto and Enrico Spolaore (2003) *The size of nations*. Cambridge, Mass.; London: MIT.
- Alexandre, Victor (1999), *Jo no soc espanyol*. Barcelona: Proa Debat.
- Balcells, Albert (ed.) (1992) *Història del nacionalisme català: dels orígens al nostre temps*. Generalitat de Catalunya, Departament de la Presidència, Entitat Autònoma del Diari Oficial i de Publicacions.
- Boix, Carles (2003), *Democracy and Redistribution*. New York: Cambridge University Press.
- Brancati, Dawn (2006) 'Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict and Secessionism?' *International Organization*, 60(3), 651–85.
- Breuilly, John (ed.) (2013) *The Oxford handbook of the history of nationalism*. Oxford: Oxford University Press.
- CEO (Centre d'Estudis d'Opinió) (2009), *Barometre d'opinió política – 1<sup>a</sup> onada 2009*. Accessible from <http://www.ceo.gencat.cat/ceop/AppJava/pages/estudis/categories/lListaCategoria.html?colId=3&lastTitle=Bar%F2metre+d%27Opini%F3+Pol%EDtica>
- CEO (Centre d'Estudis d'Opinió) (2013), *Barometre d'opinió política – 3<sup>a</sup> onada 2013*. <http://www.ceo.gencat.cat/ceop/AppJava/pages/home/fitxaEstudi.html?colId=4688&lastTitle=Bar%F2metre+d%27Opini%F3+Pol%EDtica+%28BOP%29.+3a+onada+2013>
- Centre d'Història Contemporània de Catalunya (2013), Simposi: Espanya contra Catalunya: una mirada històrica (1714-2014). [http://www20.gencat.cat/docs/chcc/0-WEB\\_AEC\\_CHCC/CHCC/ESPANYA%20CONTRA%20CATALUNYA.pdf](http://www20.gencat.cat/docs/chcc/0-WEB_AEC_CHCC/CHCC/ESPANYA%20CONTRA%20CATALUNYA.pdf)
- Chong, Dennis and James N. Druckman (2007) 'Framing theory', *Annual Review of Political Science*, 10, 103–26.
- Chong, Dennis and James N. Druckman (2010) 'Dynamic public opinion: Communication effects over time', *American Political Science Review*, 104(4), 663–80.
- Climent, Eliseu (2011), 'Valencians: Catalans from "Down Under"', in Toni Strubell (ed.) *What Catalans Want: Could Catalonia be Europe's Next State?* Ashfield (Mass.): Catalonia Press.
- Druckman, James N. (2001) 'The Implications of Framing Effects for Citizen Competence', *Political Behavior*, 23(3), 225–56.
- Economist Intelligence Unit (2012), *Democracy Index 2012: Democracy at a standstill*. EIU: London.
- El País 31/05/2013, 'TV-3 defiende el polémico 'Hola, Europe!' por ser un "documental de autor".' [http://ccaa.elpais.com/ccaa/2013/05/31/catalunya/1370013800\\_818757.html](http://ccaa.elpais.com/ccaa/2013/05/31/catalunya/1370013800_818757.html)
- El País 22/11/2013, 'La independència se estabiliza en Cataluña'. [http://ccaa.elpais.com/ccaa/2013/11/22/catalunya/1385116727\\_729424.html](http://ccaa.elpais.com/ccaa/2013/11/22/catalunya/1385116727_729424.html)
- El País 11/12/2013, 'La Generalitat acusa a PP y Ciudadanos de querer "liquidar Cataluña"' [http://ccaa.elpais.com/ccaa/2013/12/11/catalunya/1386753330\\_135992.html](http://ccaa.elpais.com/ccaa/2013/12/11/catalunya/1386753330_135992.html)
- Eriksen, Thomas H. (2002). *Ethnicity and Nationalism: Anthropological Perspectives*. 2nd edition. Pluto Press.
- Forcadell, Carme (2013), 'Discurs de la Carme Forcadell a la Marina de Sants.' <http://www.youtube.com/watch?v=qNrMSwbkI-s>
- Gadamer, Hans-Georg (1975) *Truth and Method*. New York, NY: Crossroad.

- Gaines, Brian J., James H. Kuklinski, and Paul J. Quirk (2007). 'The Logic of the Survey Experiment Reexamined.' *Political Analysis*, 15(1): 1–20.
- Gellner, Ernest (1981), 'Nationalism' *Theory and Society* 10(6): 753-776.
- Hansen, Kasper M. (2007) 'The sophisticated public: The effect of competing frames on public opinion', *Scandinavian Political Studies*, 30(3), 377–96.
- Hierro, María José (2012) *Change in National Identification. A Study of the Catalan Case*. Unpublished PhD dissertation, Universidad Autónoma de Madrid.
- Horowitz, Donald L. (1981) 'Patterns of ethnic separatism', *Comparative Studies in Society and History*, 23(2), 165–95.
- Howe, Paul (1998), 'Rationality and Sovereignty Support in Quebec.' *Canadian Journal of Political Science* 31(1): 31-59.
- Imai, Kosuke, Gary King, and Olivia Lau (2008). 'Toward A Common Framework for Statistical Analysis and Development.' *Journal of Computational and Graphical Statistics* 17(4): 892–913.
- Imai, Kosuke, Gary King, and Olivia Lau (2009). "Zelig: Everyone's Statistical Software", <http://gking.harvard.edu/zelig>.
- Keating, Michael and Alex Wilson (2009) 'Renegotiating the State of Autonomies: Statute Reform and Multi-level Politics in Spain', *West European Politics*, 32(3), 536–58.
- Kedourie, Elie (1993). *Nationalism*. 4th edition. Oxford: Blackwell.
- La Vanguardia 02/06/2010, 'PP y C's critican la emisión en TV3 de un documental sobre la independencia.' <http://www.lavanguardia.com/politica/20100602/53938894149/pp-y-c-s-critican-la-emision-en-tv3-de-un-documental-sobre-la-independencia.html>
- La Vanguardia 28/09/2012, 'Vidal-Quadras pide intervenir Catalunya con la Guardia Civil.' <http://www.lavanguardia.com/politica/20120928/54352005936/vidal-quadras-intervenir-catalunya-guardia-civil.html>
- La Vanguardia 24/10/2012, 'La eurodiputada Maria Badia (PSC) dimite como 'número dos' de los socialistas españoles en la Eurocámara.' <http://www.lavanguardia.com/politica/20121024/54353842580/eurodiputada-maria-badia-deja-eurocamara.html>
- La Vanguardia 25/11/2012, 'Elecciones Catalanas: Mas no logra la mayoría amplia que pidió.' <http://www.lavanguardia.com/politica/elecciones-catalanas/20121125/54355835134/elecciones-catalanas-mas-no-logra-mayoria-amplia-pidio-soberanismo-retrocede.html>
- La Vanguardia 10/08/2013, 'ERC apuesta por mantener la inmersión lingüística si Cataluña se independiza.' <http://www.lavanguardia.com/politica/20130810/54378473602/erc-inmersion-linguistica-catalunya-independiza.html>
- La Vanguardia 17/10/2013, 'Pere Navarro pide a Rajoy que actúe porque el tiempo no lo cura todo.' <http://www.lavanguardia.com/politica/20131017/54391279768/pere-navarro-rajoy-actue.html>
- La Vanguardia 14/12/2013, 'Junqueras agradece al gobierno que sea una "fábrica de independentistas".' <http://www.lavanguardia.com/politica/20131214/54396205765/junqueras-agradece-gobierno-fabrica-independentistas.html>
- La Vanguardia 30/12/2013, 'Miles de personas exigen en Palma el derecho a decidir de Países Catalanes.' <http://www.lavanguardia.com/internacional/20131230/54397671203/miles-de-personas-exigen-en-palma-el-derecho-a-decidir-de-paises-catalanes.html>

- La Vanguardia 24/01/2014, 'Duran pide a Rajoy argumentos atractivos no sólo contra la independencia.' <http://www.lavanguardia.com/politica/20140124/54399510928/duran-pide-rajoy-argumentos-atractivos-no-solo-contraindependencia.html>
- La Vanguardia 27/01/2014, 'Vidal-Quadras se da de baja del PP por discrepancias con Rajoy.' <http://www.lavanguardia.com/politica/20140127/54399591401/vidal-quadras-solicita-baja-como-afiliado-del-pp-tras-30-anos-de-militancia.html>
- Mendelsohn, Matthew (2003) 'Rational Choice and Socio-Psychological Explanation for Opinion on Quebec Sovereignty', *Canadian Journal of Political Science*, 36(3), 511–38.
- Muñoz, Jordi and Ramón Tormos (2014), 'Economic Expectations and Support for Secession in Catalonia: Between Causality and Rationalization.' Universitat Autònoma de Barcelona, unpublished manuscript.
- Nadeau, Richard, Pierre Martin, and André Blais (1999) 'Attitude towards risk-taking and individual choice in the Quebec referendum on sovereignty', *British Journal of Political Science*, 29(3), 523–39.
- R Core Team (2013). R: A Language and Environment for Statistical Computing [online]. Vienna, Austria. Retrieved from <http://www.R-project.org/>
- Schofield, Norman (2002). "Evolution of the Constitution." *British Journal of Political Science*, 32(1): 1–20.
- Smith, Anthony D. (1993) "The ethnic sources of nationalism." *Survival*, 35(1): 48–62.
- Smith, Anthony D. (2006) "'Set in the silver sea": English national identity and European integration', *Nations and Nationalism*, 12(3), 433–52.
- Smith, Anthony D. (2010) *Nationalism*. Cambridge, UK; Malden, MA, USA: Polity Press.
- Sniderman, Paul M. and Sean M. Theriault (2004) 'The structure of political argument and the logic of issue framing', in W. E. Saris and P. M. Sniderman (eds.), *Studies in public opinion: Attitudes, nonattitudes, measurement error, and change*. Princeton, N.J.: Princeton University Press, pp. 133–65.
- Sorens, Jason (2012) *Secessionism: Identity, Interest, and Strategy*. McGill-Queen's Press.
- Strubell, Toni (2011), *What Catalans Want: Could Catalonia Be Europe's Next State?* Ashfield (Mass.): Catalonia Press.
- Tsebelis, George (2002) *Veto Players: How Political Institutions Work*. Princeton, N.J.: Princeton University Press.
- Venables, William N., and Brian D. Ripley (2002). *Modern Applied Statistics with S*. 4th edition. New York, NY: Springer.
- Weber, Max (1922 [1978]). *Economy and Society: An Outline of Interpretive Sociology*. Berkeley: University of California Press.

## **Appendix 1**

### ***Frames and main question of the survey***

#### ***FRAME 1***

**CAT:** Molta gent creu que la independència de Catalunya reactivarà l'economia catalana, millorarà l'eficiència de les polítiques públiques, i garantirà el gaudiment de majors drets polítics.

**SP:** Mucha gente cree que la independencia de Cataluña reactivará la economía catalana, mejorará la eficiencia de las políticas públicas, y garantizará el disfrute de mayores derechos políticos.

#### ***FRAME 2***

**CAT:** Molta gent creu que la independència de Catalunya posarà en risc les relacions econòmiques amb Espanya i amb el resta de la Unió Europea, i pot inclús portar a conflictes polítics importants.

**SP:** Mucha gente cree que la independencia de Cataluña pondrá en peligro las relaciones económicas con España y con el resto de la Unión Europea, y puede incluso llevar a importantes conflictos políticos.

#### ***FRAME 3***

**CAT:** Molta gent creu que la independència de Catalunya reactivarà l'economia catalana, millorarà l'eficiència de les polítiques públiques, i garantirà el gaudiment de majors drets polítics. Altres creuen que la independència de Catalunya posarà en risc les relacions econòmiques amb Espanya i amb el resta de la Unió Europea, i pot inclús portar a conflictes polítics importants.

**SP:** Mucha gente cree que la independencia de Cataluña reactivará la economía catalana, mejorará la eficiencia de las políticas públicas, y garantizará el disfrute de mayores derechos políticos. Otros creen que la independencia de Cataluña pondrá en peligro las relaciones económicas con España y con el resto de la Unión Europea, y puede incluso llevar a importantes conflictos políticos.

#### ***FRAME 4***

**CAT:** --

**SP:** --

*QUESTION 1: Està vostè a favor de la independència de Catalunya de (la resta d') Espanya? / ¿Está usted a favor de la independencia de Cataluña de (el resto de) España?*

- a) A favor de la independència / A favor de la independencia
- b) Contra la independència / Contra la independencia
- c) No ho sé ; no contesto / No sé ; no contesto

## Appendix 2

*Multinomial logistic regression testing the impact of number of Catalan-speaking grandparents on the language spoken at home*

Table A2: Multinomial logistic regression model

	<i>Dependent variable: language spoken at home</i>		
	Cat	other	Spa
	(1)	(2)	(3)
Catalan-speaking grandparents	0.666*** (0.065)	−0.984*** (0.234)	−0.424*** (0.072)
Education	−0.052* (0.032)	−0.124* (0.066)	−0.049 (0.031)
Age	−0.003 (0.007)	−0.061*** (0.016)	−0.009 (0.006)
Constant	−0.048 (0.584)	2.833*** (1.090)	1.821*** (0.568)
Akaike Inf. Crit.	1,794.749	1,794.749	1,794.749
N	889	889	889

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Appendix 3

### *Summary statistics of the main variables employed in the statistical analysis*

**Table A3a: Summary statistics of the main numerical variables**

	N	Mean	St. Dev.	Min	Max
Long visits to (the rest of) Spain	909	1.607	2.654	0	30
Age	911	36.168	14.742	18	88
Years of education	906	14.959	3.021	6	25
Religion	821	2.955	2.977	0	10

**Table A3b: Summary statistics of the main categorical variables**

<i>Variable</i>					
	No framing	Positive	Negative	Both	
Framing	223	232	236	222	
	None	One	Two	Three	Four
Number of Catalan-speaking grandparents	341	77	180	91	222
	None	A little	Quite some	A lot	
Trade dependence	344	270	188	106	
	Catalan	Castilian	Both	Other	
Language spoken at home	367	290	214	39	

**Author contacts:**

**Mattia Guidi**

Robert Schuman Centre for Advanced Studies

European University Institute

Badia Fiesolana, Via dei Roccettini 9

50014 San Domenico di Fiesole

Italy

Email: [Mattia.Guidi@eui.eu](mailto:Mattia.Guidi@eui.eu)

**Yannis Karagiannis**

Institut Barcelona d'Estudis Internacionals

Carrer d'Elisabets 10

08001 Barcelona

Spain

Email: [ykaragiannis@ibei.org](mailto:ykaragiannis@ibei.org)