
Persuasion through reinforcement: evidence from the European Semester

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Abstract

This article examines the potential of persuasion as a way to induce compliance from Member States in the EU. Inspired by Miller's theory of persuasion as a response-reinforcing process versus persuasion as a response-changing process, this article demonstrates that the Commission often employs persuasion to reinforce Member States' existing reform agendas in the European Semester. More importantly, it shows that Country Specific Recommendations (CSRs) are more likely to be better implemented through a response-reinforcing process than a response-changing process. It demonstrates the potential of persuasion as a way to reinforce Member States' existing reform agendas and provide Member States with handy instruments that can be appropriated, thus ultimately improving CSRs' compliance.

Introduction

Is persuasion employed by the Commission to improve compliance¹ from Member States during the European Semester? If so, through what processes can it work and which is more effective? These are the core questions addressed in this article. Drawing inspiration from Miller's (1980) distinction of being persuaded as a response-reinforcing process from being persuaded as a response-changing process, this article demonstrates that the Commission often uses persuasion as a way to reinforce existing reform agendas in Member States. Moreover, this article finds that Country Specific Recommendations (CSRs) based on the response-reinforcing logic are more likely to be better implemented than CSRs based on the response-changing logic, thus demonstrating the potential of persuasion as a response-reinforcing process to improve compliance in the European Semester.

This article makes three contributions. Theoretically, it shows the potential of persuasion to induce compliance as a response-reinforcing process. Despite the many EU compliance studies (Tallberg, 2002; Falkner, *et al.*, 2005; Linos, 2007; Börzel, *et al.*, 2010; Conant, 2012; Treib, 2014), processes of persuasion are hardly researched (Börzel, 2003). While some scholars do consider persuasion as one of the main ways to deal with non-compliance, internationally as well as domestically (Chayes and Chayes, 1993, 1998; Hartlapp, 2007; Hawkins, 1984; Braithwaite, 1985), they tend to focus on persuasion as a response-changing process. Other IR scholars also mainly regard persuasion as a way to change actors' preferences,

¹ Following Stefan (2017), this article takes CSRs as soft law in EU, so compliance with CSRs is viewed from a law perspective.

attitudes, beliefs, and even identities (Checkel, 2001; Finnemore and Sikkink, 1998; Johnston, 2001; Payne, 2001; Risse, 2000). This article contributes to the understanding of how persuasion can work through both response-changing and response-reinforcing processes. More importantly, it shows the potential of the response-reinforcing process to keep reform agendas topical in Member States and sustain the reform momentum.

Empirically, this article contributes to the study of the European Semester, which is currently at the heart of the EU economic and social governance architecture (Zeitlin and Vanhercke, 2014). Despite its importance, ‘few writers have focused on the actual impact of the Semester at the national level’ (Faosis, 2016), while academic scholarship has mostly focused on the Semester’s (im)balance between social and economic objectives (van der Veer and Haverland, 2018, p. 2). Therefore, this article examines the ‘outstanding empirical issue’ of ‘the domestic implementation and causal influence of the European Semester’ (Zeitlin and Vanhercke, 2018, p. 169). However, one caveat to note is that this article does not aim so ambitiously as to explain the implementation outcomes in the Member States. Instead, its goal is more modest, and it only looks into the potential of persuasion as a compliance strategy and its likely impact. Moreover, this article improves the understanding of compliance with CSRs, an important kind of soft law² used in the European Semester since 2011. Soft law has become increasingly important in the EU governance, but there is still a lack of research on its compliance (Saurugger, 2012; Saurugger and Terpan, 2016). This article shows how the Commission can use persuasion to improve compliance of CSRs in the European Semester.

Methodologically, this article applies a quantitative method to demonstrate how persuasion can work through two different mechanisms. Most compliance studies take a qualitative approach to study persuasion, while claiming that conclusive proof of persuasion is elusive (Krebs and Jackson, 2007, p. 40) or that the logic of persuasion is difficult to discern in empirical terms (Hartlapp, 2007, p. 670). Based on manual coding of data mainly from the Commission, this study applies a Cumulative Link Mixed Model (CLMM) developed by Christensen (2015) to show how CSRs based on a response-reinforcing process are more likely to be better complied. Thus this work enriches the tools that can be used to study persuasion.

This article will be organized as follows. The next section will briefly review previous research on persuasion, especially its focus on the response-changing process. Then, drawing inspirations from Miller, how persuasion might work in the European Semester will be explored. After that, detailed information

² Soft law are rules of conduct which, in principle, have no legally binding force but which nevertheless may have practical effects and also legal effects. For instance, in EU recommendations and opinions are prime examples of soft law. See Stefan (2017).

about data and the coding process will be provided, followed by preliminary analysis and then a detailed analysis of the models' results. The last part will briefly conclude the article and provide some implications for future study.

Being persuaded as a response-changing process

As Miller (1980, p. 21) writes:

“being persuaded” is most typically thought of as a response-changing process: smokers are persuaded to become nonsmokers, automobile drivers are persuaded to walk or use public transportation, Christians are persuaded to become Moslems, and so on. Popular use equates “being persuaded” with “being changed”.

Indeed, this is the dominant IR scholarly view of persuasion, as well as the view of most scholars who propose persuasion as a main tactic of improving compliance.

In international relations, scholars tend to regard persuasion as a way of changing actors' preferences, attitudes, beliefs, and even identities, and they often use dramatic cases to show how changes happen due to persuasion. For instance, when Johnston (2001) looks into persuasion as one of the two basic microprocesses in socialization theory, he focuses on its changing process: ‘As a microprocess of socialization, it involved changing minds, opinions, and attitudes about causality and affect (identity) in the absence of overtly material or mental coercion’ (Johnston, 2001, p. 496). Finnemore and Sikkink (1998, p. 914) also consider persuasion as ‘the mission of norm entrepreneurs: they seek to change the utility functions of other players to reflect some new normative commitment’. Payne (2001, p. 40) argues that ‘persuasion occurs when actor preferences change in response to communicative acts and cannot be revealed merely by examining behavior’. When proposing argumentative persuasion, Checkel (2001, p. 562) also defines it as:

a social process of interaction that involves changing attitudes about cause and effect in the absence of overt coercion...a mechanism through which preference change may occur... in which a communicator attempts to induce a change in the belief, attitude, or behavior of another person.

Similarly, Risse (2000, p. 8) looks at ‘rhetorical action’ as a type of communication that ‘actors use arguments to persuade or convince others that they should change their views of the world, their normative beliefs, their preferences, and even their identities’.

Consequently, scholars tend to focus on major game-changing events, such as the norm-driven change of human rights in Ukraine (Checkel, 2001), labour standards change in WTO (Payne, 2001), Gorbachev and Shevardnadze's changing minds on the German unification in the 1990s (Risse, 2000), and how colonialism was denormalized and delegitimized due to persuasive ethical arguments (Crawford, 2002).

More specifically in international compliance studies, scholars also mainly regard persuasion as a way to induce changes from states. Two prominent figures of the so-called ‘management school’ (Tallberg, 2002), Chayes and Chayes (1993, p. 204; 1998, p. 25), regard “‘jawboning’ – the effort to persuade the miscreant to change its ways – as the characteristic method by which international regimes seek to induce compliance’. While many compliance studies have applied the management theory to EU (Tallberg, 2002; Linos, 2007; Börzel, *et al.*, 2010; Conant, 2012; Treib, 2014), processes of persuasion are hardly researched (Börzel, 2003). Although in one study Hartlapp (2007) does look into the logic of persuasion in EU compliance, she is mainly following the understanding of Checkel and Risse to see how persuasion ‘aims to change the underlying norms and values that drive Member State action’ (Hartlapp, 2007, p. 656).

However, the result of persuasion may not just be Member States simply changing their minds, preferences, and accordingly their behaviors, because Member States may have already considered similar suggestions and prepared relevant reforms in line with the persuasion. In such cases, Member States already have the propensity to comply, so the issue is to reinforce this propensity rather than to change it. Focusing merely on ‘change’ risks overlooking the other mechanism of persuasion. Miller begins to fill this theoretical gap through his discussion of another mechanism: persuasion as a response-reinforcing process.

Being persuaded as a response-reinforcing process

According to Miller (1980), being persuaded has two behavioral outcomes in addition to behavioral conversion, namely being persuaded as a response-shaping process, and being persuaded as a response-reinforcing process. Response-shaping happens when ‘dealing with persons who have limited prior learning histories or with situations where radically new and novel stimuli have been introduced to the environment’ (p. 16). For present purposes, response-shaping is less relevant, as knowledge abounds with regard to the European Semester.³ Being persuaded as a response-reinforcing process, on the other hand, may have bigger implications for the study of Member States’ compliance. Basically it argues that persuasion also happens ‘if an individual clings to an attitude (and the behaviors associated with it) more strongly after exposure to a communication’ (Miller, 1980, p. 19). From Miller and Burgoon’s (1973, p. 5) perspective:

Rather than aiming at changes in attitudes and behaviors, much persuasive communication seeks to reinforce currently held convictions and to make them more resistant to change. Most Sunday sermons serve this function, as do keynote speeches at political conventions and presidential addresses at meetings of scholarly societies. In such cases, emphasis is on making

³ The suggestions from CSRs are not radically new or alien to Member States, which has very limited similarity to what Miller illustrates with a newly-born child.

the persuadees more devout Methodists, more active Democrats, or more committed psychologists, not on converting them to Unitarianism, the Socialist Workers Party, or romance languages.

Indeed, persuasion as a response-reinforcing process fits very well with compliance theories from the management school. The fundamental assumption of this school is that states have the propensity to comply voluntarily with international treaties (Chayes and Chayes, 1993, 1998). Under such an assumption, then persuasion as a response-changing process is less relevant, as Member States' preferences already tend towards compliance. Thus it makes little sense to talk about persuading Member States to change their attitudes or preferences. Instead, looking into how persuasion can reinforce their existing preferences to comply could be much more meaningful.

Persuasion: reinforcing and changing processes in the European Semester

Inspired by Miller's insights, this article applies the reinforcing-changing division to the European Semester, an annual social-economic policy coordination process introduced in 2011. During each European Semester, Member States submit National Reform Programmes (NRPs) and Stability/Convergence Programmes (CPs) to the Commission in April, laying out reform agendas. Then the Commission will accordingly propose Country-Specific Recommendations (CSRs) for each Member State, which are revised and adopted by the Council in July. Member States are then obliged to implement CSRs, and the Commission will issue Country Report and evaluate the progress of CSR implementation in each Member State, usually in February of the following year (see Appendix 1 for an illustration of the European Semester). Each year the Commission will have two or three formal bilateral meetings with each Member State, as well as some informal meetings carried out by the fact-finding missions (Vanheuverzwijn, 2016). This intensified interaction between the Commission and Member States offers a great opportunity to look into the potential of persuasion as a way of inducing compliance from Member States in implementing CSRs.

Moreover, it's not just the intensified interaction generating potential for persuasion; evidence shows that the Commission actively follows a response-reinforcing logic to persuade Member States. For instance, Fasois (2016, p. 7) cites a quote from the Commission that 'Belgian pension reforms have been going on since before the Semester, so I don't think that the Semester has done anything more than to encourage them to go along the way'. Zeitlin and Vanhercke (2014, p. 58) also find that some Member States are happy to receive CSRs, because the Commission gives it a push. More importantly, the most direct evidence comes from an interview with one civil servant from the Commission, saying that:

The current government is a minority government, they would like to have such recommendations...in those areas where they need these recommendations as (an) instrument,

as (a) leverage, to fight, to get through with force... They are appreciating what we are drafting, as long as it does not contradict to their own policy. Rather we are pushing their policy forward and telling them: “Yes, you are on the right path, please continue. But please do more.” (Com 01)

Another interviewee from the Secretary General points out:

We want to reflect the priorities of Member States. Because for us it’s important that the recommendations we publish, and the Council endorse, also match what the Member States want to do in their own states and their own territories. It has to be taken up by some level of ownership, in order to be implemented. It is important that it matches what the authorities in the local, regional and national think. (Com 02)

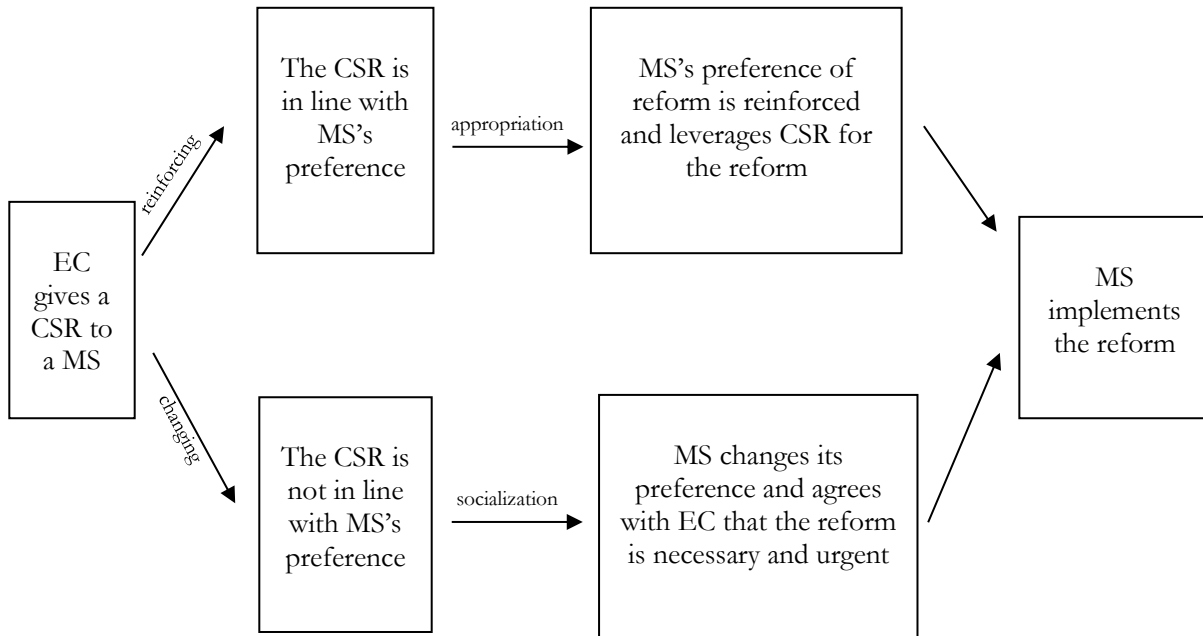
Clearly, these show that the Commission uses CSRs to persuade Member States to implement structural reforms that are already more or less in the pipeline. Indeed, this is very much in line with the response-reinforcing mechanism, as in these cases the Commission is not aiming to induce new reforms that sound completely alien to the Member States. However, does this work? Is it more effective in facilitating the implementation and improving compliance than a response-changing mechanism whereby the Commission tries to challenge Member States? To answer these questions, this article will compare the implementation of CSRs that are based on the response-reinforcing process with those that are based on the response-changing process.

In general, this article assumes the Commission is persuading Member States to implement CSRs through two different mechanisms. On the one hand, it works through a response-changing process. In that case, the Commission tries to induce drastic changes in the Member States’ preferences, so it issues CSRs that are not in line with their plans. In order for this mechanism to work, Member States need to socialize the CSRs, which means that they ‘change their preferences as a result of contact with the EU level decision-making procedures’ (Fasois 2017, p. 7). In the end, Member States implement these CSRs. On the other hand, it could work through a response-reinforcing process. In that case, the Commission tries to reinforce Member States’ preferences, so it issues CSRs that are in line with their plans. To be effective, then Member States need to appropriate⁴ the CSRs, which means that they ‘use the concepts, jargon and arguments of the discussions at the EU level as means to legitimize and promote their own agenda’ (Fasois 2017, p. 6). In the end, they will implement these CSRs that are already being considered domestically. The two mechanisms of persuasion are illustrated in Figure 1. Note that this figure only shows the scenarios where these two processes successfully persuade Member States to implement

⁴ Or some scholars call this leverage effect, see Hamel and Vanhercke, 2009; Zeitlin, 2009; Visser, 2005.

reforms, rather than presenting all the possible outcomes of persuasion. For instance, it is likely that despite reinforcement from the Commission, Member States still fail to implement reforms due to many other reasons, such as administrative capacity, bad timing, etc.

Figure 1: an Illustration of Persuasion as a Response-Reinforcing Process versus a Response-Changing Process in the European Semester



Presumably people would expect the reinforcement mechanism to work better. Since Member States often carefully safeguard themselves against interference from EU Institutions, it might be easier for them to implement the CSRs that are already being considered, as they are less intrusive, than to change preferences and implement CSRs not in line with their own thinking. However, there are also reasons to suspect that a response-changing mechanism could work better. Firstly, the Commission has greatly enhanced its surveillance capacity during the European Semester (Savage and Verden, 2015), so it is likely that the Commission can also pressurize Member States to change their preferences. Secondly, while those CSRs in line with the preferences of Member States sound less intrusive, they can also be regarded as useless. Because they do not introduce anything new, ironically they can be too soft to be paid attention to. Therefore the response-reinforcing process may not be more effective than the response-changing process in facilitating implementation. In order to answer this question of which mechanism might work better, this article compiles a dataset and applies a quantitative model to shed light on it.

Data and coding

Data

In this study, a novel dataset was built up from official EU websites. All the CSRs from 2013-2018 were collected from Commission Country Reports. The Economic Governance Support Unit (EGOV) in IPOL from the European Parliament has compiled all the CSRs and their evaluations from the Commission into summary tables, which were used as the main data source. Then all the NRPs were downloaded from the Commission website on the European Semester, which were the main sources for coding the independent variable. Following Efstathiou and Wolff's (2018, p. 3) study, the unit of analysis in this article is the sub-CSRs rather than CSRs, because "Breaking CSRs up into more specific components offers some clear advantages: evaluating implementation of recommendations at this more granular level becomes easier, more accurate and more informative". Moreover, using sub-CSRs can improve both reliability and validity of coding, which will be explained later. One example is provided in Appendix 2 to show how the Commission divides the original CSRs. CSRs from 2011-12, are not used. The Commission did not systematically assess the implementation of CSRs in 2011, so the 2011 CSRs were excluded. In 2012, the Commission used different categories to assess CSR implementation, and did not define the categories explicitly (EGOV, 2014), so it is difficult to adjust them to be line with later assessments. Moreover, the Commission did not divide CSRs into sub-CSRs in 2011-12. Based on the sub-CSRs, a total of 1960 observations for 26 Member States were collected⁵.

Dependent variable

In this study, the dependent variable is the level of implementation of each CSR. Two kinds of measurement are used. The first measurement comes from the Commission. Each February⁶, the Commission assesses in the Country Report the implementation of CSRs in each Member State issued in the previous year. There are five categories of implementation, namely *No Progress*, *Limited Progress*, *Some Progress*, *Substantial Progress*, and *Full Implementation*. The assessment criteria of the Commission for its evaluation of CSRs implementation can be found in Appendix 3. The second measurement is based on the first measurement. In its annual summary, EGOV collapses the Commission five categories into three, combining *No Progress* and *Limited Progress*, retaining *Some Progress*, and again combining *Substantial Progress* and *Full Implementation*. Measurements based on five categories might yield different results from

⁵ Only 26 countries are included in this article, as data for Portugal and Greece are not included. Portugal's NRPs are all in Portuguese, so it is not possible to code the data, as will be explained later. Greece is not included because it was excluded from the European Semester process from 2013-18.

⁶ In 2014, the Country Report was called the Staff Working Document, and it was published in June.

measurements based on three categories, so this study chooses to test the model on both sets of measurements.

Independent variable

In this article, the independent variable is the two persuasion processes, which is categorized as either the process of response-reinforcing or response-changing. This is measured by manually coding the extent to which a CSR is reflected in the Member State's NRP early in that year. The logic behind this measurement is: since NRPs are submitted by each Member State to the Commission in April each year to present their reform agendas, they are considered as representing the preferences of each Member State. Then CSRs will be proposed by the Commission in May and then revised and adopted in July, after the Commission assesses the NRPs. If a CSR is reflected in that year's NRP, which includes a rather detailed description of how the government is going to address the issue, then the CSR is considered to be persuasive via a response-reinforcing process. Because the government already wants to carry out similar structural reforms in April, a CSR on these issues from the Commission shows its intention to reinforce the Member State preferences and provide instruments for domestic appropriation. Accordingly this CSR is coded as 1, representing the mechanism of response-reinforcing. On the contrary, if the CSR is not reflected at all in that year's NRP, or it is explicitly stated that the government is not going to do anything about the issue, or only a portion of the CSR's content is reflected in the NRP, then the CSR is considered to be persuasive via a response-changing process. Because the government does not have plans for a certain reform in its NRP, a CSR on the issue shows the intention of the Commission to challenge the Member State to take reforms after the Commission has assessed the NRP. Accordingly this CSR is coded as 0, representing the mechanism of response-changing. A detailed code book is provided in Appendix 4.

Two choices demand clarification. Firstly, NRPs are used, while CPs are ignored, because CPs are both technical and devoted entirely to the fiscal sector, while NRPs cover all structural reforms that the Member State is dealing with⁷. Secondly, the reason why the sub-CSR, instead of the full CSR, is used as the unit of analysis is simply to increase both the validity and the reliability of the coding process. In terms of validity, sub-CSRs are much shorter and concise, which enables coding of the fit between sub-CSRs and NRP content to be more precise. As for reliability, this also helps reduce errors among the

⁷ Each year there are some Member States without observations, due to the fact that NRPs were not in English. In 2013, there was France. In 2014, there were Romania, Spain, and France. In 2015, there were Italy, Spain, and Estonia. In 2016, there were Germany, Sweden, Slovakia. In 2017, there were Croatia, Denmark, Czech, France, Germany, Italy, Slovakia, Spain. In 2018 there were Belgium, Croatia, France, Germany, Italy, and Spain.

coders (the researcher and an external student assistant⁸), as shorter CSRs are obviously easier to catch in the NRPs.

Control variables

The total number of CSRs: For sure, if a country receives many CSRs, it will have an impact on final implementation, because the capacity to deal with issues is limited. Therefore, the more CSRs a Member State gets, the less likely these CSRs will be fully implemented. However, the total number of CSRs may also influence the choice of the two persuasion mechanisms. For instance, if there are more CSRs, the Commission might choose to use a larger share of CSRs to challenge and change the Member State's preferences than if there are very few CSRs. Therefore, this is an important confounding variable.

The complexity of CSRs: Even if sub-CSRs cover fewer issues, sometimes they are also written in long sentences and look complex. Such CSRs might be less likely to be fully implemented, simple because it is complicated. On the other hand, it is also less likely for a complicated CSR to be fully considered by the Member State, because the Member State might only plan to reform part of the issue covered by it. Therefore, the complexity of the CSR influences both the mechanism of persuasion and the implementation outcome, so it needs to be controlled. To measure the complexity of a CSR, the number of words is counted, and it is assumed that a CSR with more words is more complicated.

Year: Each year the situation might be different both for EU and for the Member State. For instance, EU might change presidency, so year can influence the choice of persuasion strategies. For instance, the Junker administration may prefer to use more response-reinforcing than the Barroso administration, especially since it has made bold reform to revamp the European Semester. On the other hand, Member States may implement CSRs especially well in some years than the others. Therefore, year is an important control variable here.

Sector: Presumably, CSRs in some sectors are more likely to be implemented than CSRs in others. For instance, CSRs on the issue of fiscal discipline are closely related to the Stability and Growth Pact (SGP), and the Commission may impose financial sanctions on a Member State that fails to comply (de la Porte and Heins, 2016). Then those CSRs can have better implementation due to more pressure. On the other hand, the Commission may prefer to use response-changing in some sectors more than the other. For instance, since it has more competence in fiscal governance, it might use response-changing to be more challenging. In a word, sector is associated both with the choice of persuasion mechanisms and the implementation outcome. This article codes each CSR into the five big sectors, based on the overview of policy areas issued by the Commission in 2017⁹. These five areas are: public finances & taxation, financial

⁸ Due to logistic reasons, the student only coded data from 2013-2016.

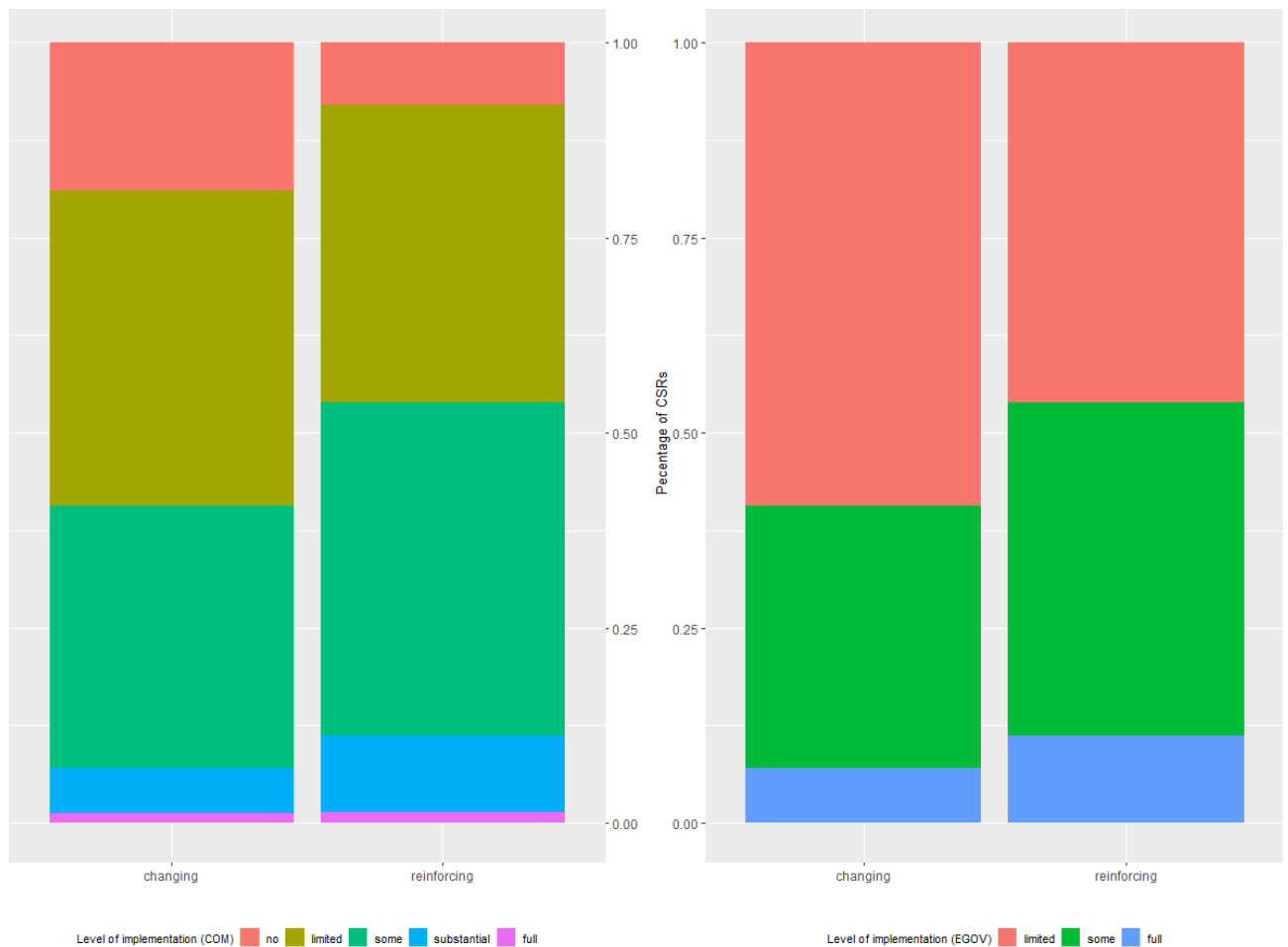
⁹ <http://europa.eu/rapid/attachment/IP-17-1311/en/Policy-areas-in-CSRs-2017.pdf>

sector, labour market & education & social policies, structural policies, and public administration & business environment.

Descriptive analysis

From Figure 2, it can be seen how the level of CSR implementation changes between those two different mechanisms of persuasion. In general, the broad picture is that CSRs based on response-reinforcing mechanisms tend to see a larger proportion of them being fully or substantially implemented. The left graph is based on the five categories defined by the Commission, while the right one is based on the three categories coded from EGOV. They are more or less similar in the general trend, which should be unsurprising, as EGOV categorization simply combines *no progress* with *limited progress*, as well as *substantial progress* with *full implementation*. This preliminary analysis should give some confidence that persuasion as a response-reinforcing process is likely to be more effective than a response-changing process to facilitate implementation.

Figure 2: Barplots of the Percentage of CSRs at the Two Different Mechanisms



A Cumulative Link Mixed Model

In this article, a Cumulative Link Mixed Model (CLMM), developed by Christensen (2015) is applied. There are several reasons for this choice. Firstly, the dependent variable is ordinal. Both the five categories from the Commission and the three categories from EGOV are clearly ordered from lower level of implementation to higher level. Therefore, an ordinal model is needed, because ‘ordinal methods have greater power for detecting relevant trends or location alternatives to the null hypothesis of “no effect” of an explanatory variable on the response variable’ (Agresti, 2010, p. 3). Secondly, it seems that the implementation outcome is substantially influenced by country-specific characteristics, such as administrative capacity, GDP growth rate, the compliance culture, the political instability, etc (see Treib, 2014 for a summary). This means that the effect of the two persuasion mechanisms would be conditional on these very significant but country-specific factors. Therefore, those factors need to be controlled. However, finding data and controlling all of them do not seem plausible. More importantly, the main interest of this article is not to compare the effects of the two persuasion mechanisms across the different Member States, for instance to see if response-reinforcing is more effective in France than in Denmark. Instead, the main purpose is to learn about the ‘within-cluster’ effects (Agresti, 2010, p. 311), that is, to learn if reinforce-reinforcing is on average more effective than response-changing in each Member State. Therefore, the better way is to take Member States as blocking variable and consider these individual features as random effects for a given country. Fortunately, the CLMM model does exactly that. It could take the individual effects to be random, under the assumption that the individual effects are IID normal (Christensen, 2015). This is also the reason why all these features have not been listed as control variables.

In short, the CLMM model fitted in this article is defined as the following:

$$\text{logit}(P(Y_i \leq j)) = \theta_j - \beta (\text{mecha}_i) - \lambda_k X_{ki} - u(\text{country}_i), \quad (1)$$

$$i = 1, \dots, n, j = 1, \dots, J - 1, k = 1, \dots, k$$

This is a model for the cumulative probability of the i th CSR’s level of implementation falling in the j th category or below, where i indexes all observations and j indexes the different categories of CSR implementation ($J = 5$ based on the Commission measurement while $J = 3$ based on EGOV measurement). θ_j are threshold parameters or cut points at the level of CSR implementation. β is the coefficient the independent variable, while mecha_i is the mechanism of persuasion used by the Commission for the i th CSR. $\lambda_k X_{ki}$ is the vector of control variables ($k = 4$). u is the random effects of each country. The same random effect is applied to each cut point. This means that the larger random effect for a given country, the bigger cumulative probabilities of implementation will CSRs have in that given country.

Model results and analysis

Table 1 summarizes all the models applied in this article. The first five models are based on the measurement from the Commission, while the other five models are based on the measurement from EGOV. From Model 1 to Model 5, more and more control variables are added, and the same process also applies to the other five models based on EGOV categorization. Here ‘response-reinforcing’ is the main interest of the article. In general, although the values of the coefficients of it decrease a bit when the first five models are compared with the later five models, it is evident that across all ten models, all of them are strongly significant, with the range of 95 per cent confidence interval strictly above 0. To illustrate, if the coefficients are transformed into odds ratios, then in Model 5, it means that the odds ratio of the mechanism of response-reinforcing against mechanism of response-changing (the baseline), is 1.8, with a confidence interval of (1.5 2.2); in Model 10, the odds ratio of the mechanism of response-reinforcing against mechanism of response-changing is 1.7, with a confidence interval of (1.4 2.1). Interpreting this, it means that if a CSR is taking the persuasion process of response-reinforcing, then it is 1.8 times more likely (from Model 5) or 1.7 times more likely (from Model 10) to be better implemented, than if a CSR is taking the persuasion process of response-changing.

This can be illustrated with an example. Imagine the Commission gives Denmark in a given year one CSR on its pension system, and another CSR on its unemployment benefit. Both CSRs are in the social policy sectors, and both have similar complexity. Assume that the pension CSR is fully reflected in Denmark’s NRP, but the unemployment benefit CSR is totally missing from it. According to Model 10, it means that in Denmark, the estimated odds of the pension CSR landing in the category of ‘full implementation’ instead of ‘some implementation’ or ‘limited implementation’, and the estimated odds of landing in the category of ‘full implementation’ or ‘some implementation’ instead of ‘limited implementation’, is on average 1.7 times bigger than the estimated odds of unemployment benefit CSR. This clearly demonstrates the potential of the strategy of persuasion from the Commission as a way to reinforce the existing ideas of reforms in Member States and then facilitate CSR implementation. Of course, this effect of persuasion as a response-reinforcing mechanism is conditional on the random country effects. It is likely that in another Member State, due to the many other peculiar domestic factors, even a CSR taking the response-reinforcing mechanism might still end up being limitedly implemented, because the random country effects could reduce the overall cumulative probability of implementation of all the CSRs in that country.

One thing to note here is that, this article only aims to compare the effectiveness of the two processes of persuasion, rather than to demonstrate the absolute effectiveness of persuasion. Therefore, this article acknowledges the high implementation deficits of CSRs in the European Semester (EGOV, 2015, 2016;

Deroose and Griesse, 2013), which are also demonstrated in Figure 2, where lots of CSRs based on the mechanism of response-reinforcing are still poorly implemented. This suggests that persuasion as a whole might not be very effective in inducing compliance. And there are many reasons for this. For example, it is possible that despite the reinforcement, Member States still fail to implement due to their domestic factors, just as the random country effects show. However, this article demonstrates that despite all these possibilities, persuasion as a response-reinforcing process can still make CSRs more likely to be better implemented than those based on a response-changing process.

In the end, Table 1 shows that the control variables do not alter the effect of the response-reinforcing mechanism that much. Moreover, these control variables do not show much significance across the models, except for the financial sector. It seems that compared with CSRs in the sector of public administration & business environment, the CSRs in the financial sectors have a much higher chance to be better implemented.

Robustness checks

In order to check whether the result is robust, the first thing is to confirm that the models fulfill the model assumption, that is, the proportional odds assumption. The proportional odds assumption holds that ‘the effect β is the same for each cumulative probability. For each j , the odds of outcome $Y_2 \leq j$ equal $\exp(\beta)$ multiplied by the odds of outcome $Y_1 \leq j$ ’ (Agresti, 2010, p. 231). Simply put it, if this assumption does not hold, then there should be $(J - 1)$ different β s instead of a single β . The model without the proportional odds assumption would be as the following:

$$\text{logit}(P(Y_i \leq j)) = \theta_j - \beta_j(\text{mecha}_i) - \lambda_k X_{ki} - u(\text{country}_i), \quad (2)$$

$$i = 1, \dots, n, j = 1, \dots, J - 1, k = 1, \dots, k$$

After the nominal test from the CLMM package, it turns out that although the first five models all show significant results for the independent variable, they fail to satisfy the model assumption. In comparison, the models based on EGOV’s three categories of CSR implementation satisfy the model assumption, with no significance of the nominal effects. Therefore, EGOV measurement of the implementation level is more robust in this article. This is probably because EGOV categorization only has two β s without the proportional odds assumption. In contrast, the Commission’s original assessment will have four β s without the proportional odds assumption, then it is less plausible to assume them to be roughly the same across the different cut points.

Secondly, an ANOVA test is carried out to see if adding the random effect of countries is significant. Comparing the model without the random effect with the model with random effect based on Model 10, it demonstrates that the random effect of countries is very significant. Therefore, this justifies the use of

country random effects in this model. Again, this is not surprising, as many previous researchers have demonstrated that domestic factors matter a lot for Member States' compliance (see Treib, 2014 for a summary).

Thirdly, a bootstrapping procedure is operated to check the confidence interval of the model coefficients. Based on model 10, the original data is resampled 1000 times with replacement. Then the whole model is run again, producing a coefficient each time. The result (see Appendix 6) shows that the 95 per cent confidence interval of the coefficient of 'response-reinforcing' is from 0.304 to 0.769, with an average of 0.533, which is very close to the result 0.53 shown in Table 1. Since this confidence interval is strictly above 0, it demonstrates that persuasion as a response-reinforcing process is more effective than a response-changing process in facilitating CSRs implementation.

Lastly, another coding of the independent variable is carried out. Instead of coding a CSR into either based on the mechanism of response-changing or response-reinforcing, the category of response-changing is recoded as either pure response-changing, which means that the Commission is challenging the government to take reforms that it mentions nothing at all in its NRP, or that the government completely rejects the idea of reforming; or weak response-reinforcing, which means that the Commission is recommending the government to take reforms that are partly mentioned or planned in its NRP. It turned out that CSRs based on both weak response-reinforcing and strong response-reinforcing are significantly more likely to be better complied, compared with CSRs that are based purely on response-changing. The results can be found on Appendix 7.

Table 1: Summary of all Models

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
response-reinforcing	0.60*** (0.10)	0.58*** (0.10)	0.58*** (0.10)	0.61*** (0.10)	0.60*** (0.10)	0.49*** (0.10)	0.47*** (0.11)	0.47*** (0.11)	0.53*** (0.11)	0.53*** (0.11)
number of CSRs		0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)		0.02* (0.01)	0.02 (0.01)	0.02* (0.01)	0.00 (0.02)
complexity			0.00 (0.00)	0.00 (0.00)	0.00 (0.00)			0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
sector-financial sector				1.18*** (0.21)	1.20*** (0.21)				1.40*** (0.22)	1.42*** (0.23)
sector-labour market, education and social policies				0.14 (0.16)	0.14 (0.16)				0.21 (0.17)	0.20 (0.17)
sector-public finance & taxation				-0.00 (0.17)	0.01 (0.18)				0.29 (0.19)	0.29 (0.19)
sector-structural policies				0.05 (0.19)	0.04 (0.19)				0.12 (0.21)	0.11 (0.21)
year-2014					-0.08 (0.13)					-0.03 (0.14)
year-2015					-0.29 (0.23)					-0.40 (0.25)
year-2016					-0.07 (0.24)					-0.20 (0.25)
year-2017					0.12 (0.27)					-0.06 (0.29)
year-2018					-0.30 (0.28)					-0.50 (0.31)
Log Likelihood	-1862.19	-1861.13	-1861.12	-1840.24	-1837.33	-1363.06	-1361.09	-1361.09	-1336.72	-1333.93
AIC	3732.38	3732.27	3734.24	3700.49	3704.65	2734.12	2732.19	2734.17	2693.44	2697.85
BIC	3753.71	3758.92	3766.22	3753.80	3784.62	2755.45	2758.84	2766.16	2746.75	2777.82
Num. obs.	1527	1527	1527	1527	1527	1527	1527	1527	1527	1527
Groups (country)	26	26	26	26	26	26	26	26	26	26
Variance: country: (Intercept)	0.35	0.37	0.36	0.37	0.35	0.39	0.41	0.41	0.42	0.38

***p < 0.001, **p < 0.01, *p < 0.05

Discussion and conclusion

This article examines whether and how persuasion has been used by the Commission to improve compliance of CSRs in the European Semester. Theoretically, it draws inspiration from Miller's distinction of the two persuasion processes. It finds that previous scholars have largely focused on how persuasion can produce behavioral changes from Member States, while the potential of persuasion as a response-reinforcing process has been largely overlooked. Applying Miller's theory to the European Semester, it finds that the Commission has often been trying to persuade Member States to implement structural reforms through a response-reinforcing process. To see whether persuasion as a response-reinforcing process is more effective than persuasion as a response-changing process, this article builds up a dataset with all the CSRs from 2013–18, and then applies a CLMM model to compare CSRs based on these two different persuasion processes.

The result shows that Member States are more likely to comply with CSRs if the Commission uses persuasion as a response-reinforcing process, than if the Commission tries to impose different reform agendas. In addition, the effect of persuasion is conditional on Member States' particularities, such as their compliance culture or their administrative capacity. The findings are in line with previous findings that Member States tend to leverage EU recommendations for domestic reforms (Zeitlin and Vanhercke, 2018; Munta, 2017). However, this study sees from the Commission's perspective, and shows that it can reinforce Member States' reform momentum, by providing CSRs as instruments for domestic appropriation.

In all, this article enriches the existing literature's understanding of the processes of persuasion in inducing compliance from Member States in EU. It also contributes to the empirical study of the European Semester and its CSRs, while adding a quantitative tool to the research of persuasion by employing the CLMM package. Moreover, findings from this article have several implications for future research. Theoretically, since persuasion can work through different processes, it would be interesting researching the conditions under which one process is used more often than the other. For instance, van der Veer and Haverland (2018) have demonstrated how politicization has led the Commission to issue CSRs less oriented towards social investment. Therefore, further research could try to better theorize the conditions for the two persuasion processes, and then apply this to the Commission. Empirically, since there has been increased national ownership of the European Semester process, it is possible that persuasion as a response-reinforcing process will have even more potential in the future. Thus further research could evaluate data as it becomes available in order to identify trends in the persuasion processes of CSR compliance. Moreover, as the country random effects are very significant, future research needs to look into these domestic factors and their influence on CSR implementation. Methodologically,

qualitative methods can be used to analyze more concrete cases of how the Commission can reinforce Member States' reform agendas and lead to final implementation. In such cases, process-tracing could be a powerful tool to look into the causal mechanisms that underlie reinforcement and final implementation.

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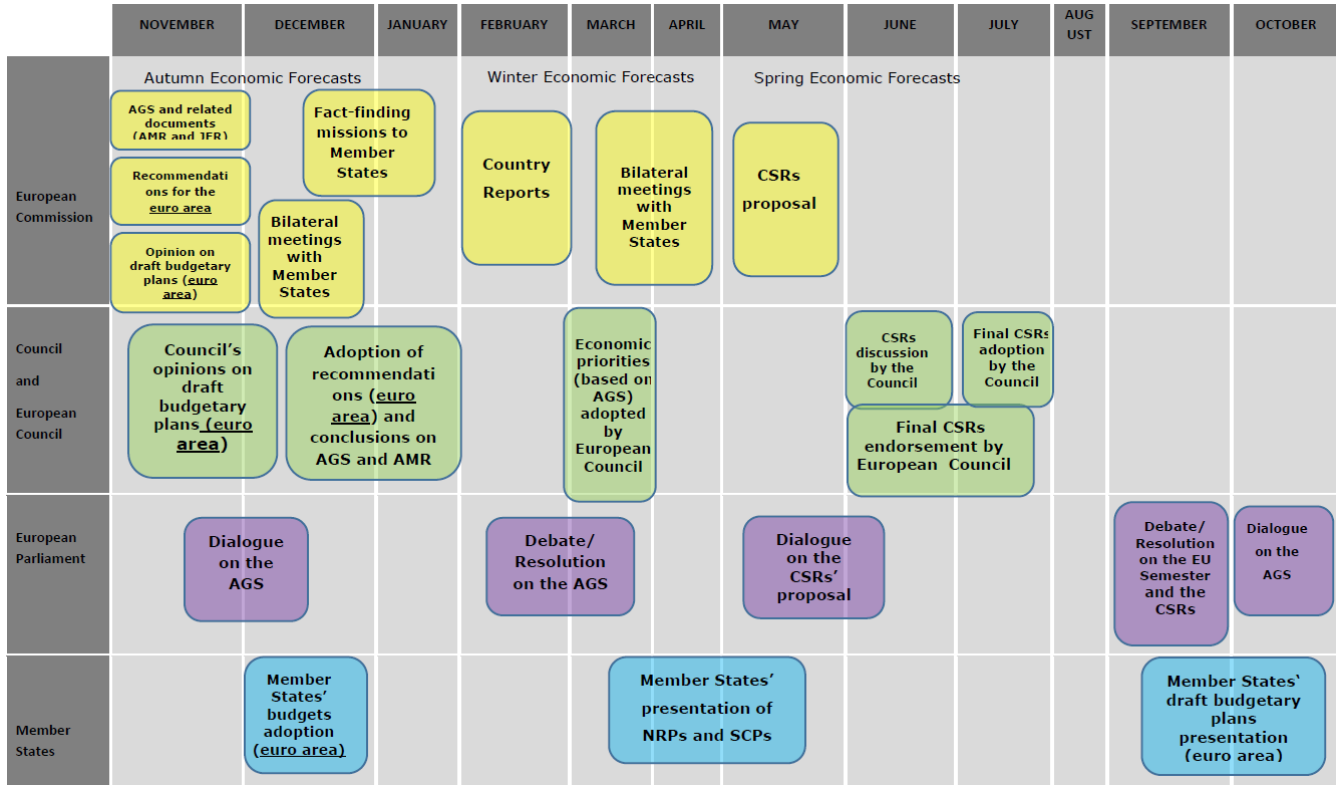
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Interviews

1. Commission, Secretariat General (SG), Brussels, 27 March 2018.
2. Commission Representation in Denmark, Copenhagen, 25 February 2018.

Appendix 1: an Illustration of the European Semester



Source: EP (2016, p. 31) Mainstreaming employment and social indicators into macroeconomic surveillance.

Appendix 2: an Example of Original CSR and Sub-CSRs

<p>CSR 2:</p> <p>Enhance productivity and private sector investment by increasing competition in the domestic services sector, in particular retail and construction and to incentivise the cooperation between businesses and universities.</p> <p>Enhance productivity and private sector investment by increasing competition in the domestic services sector, in particular retail and construction ...</p> <p>... and to incentivise the cooperation between businesses and universities</p>	<p>Denmark has made some progress in addressing CSR 2</p> <p>Some progress has been made in enhancing productivity and private sector investment. On facilitating market access in retail: in January 2017 the government presented a proposal to the Parliament to amend the Planning Act. However, since this proposal has not yet been adopted, the assessment is limited progress. There was some progress on facilitating market access in construction, following the mapping of standards in 2015, the updating of the law on electrical installations in 2015, and the proposed amendments to the Building Regulation to simplify procedures.</p> <p>Some progress has been made on incentivising cooperation between businesses and universities: There is some initiative from the national authorities to strengthen the links between universities and the private sector through dialogues involving both parties, new guidelines and specific programmes that stimulate collaboration.</p>
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Source: European Commission, 2017, Country Report for Denmark, p. 41.

Appendix 3: European Commission: Assessment Criteria of the CSRs Implementation

The following categories are used to assess progress in implementing the 2016 country-specific recommendations:

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:

- no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament / relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);
- no non-legislative acts have been presented by the governing or legislator body;
- the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:

- announced certain measures but these only address the CSR to a limited extent; and/or
- presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the CSR will be implemented;
- presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR and/or the Member State has adopted measures that address the CSR, but a fair amount of work is still needed to fully address the CSR as only a few of the adopted measures have been implemented. For instance: adopted by national parliament; by ministerial decision; but no implementing decisions are in place.

Substantial progress: The Member State has adopted measures that go a long way in addressing the CSR and most of which have been implemented.

Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

Source: European Commission, 2017, Country Report Denmark 2017, p. 41

Appendix 4: Coding Scheme

csr-nrp	criteria
2	The CSR is mentioned in NRP. A lot of measures have been done. There are some measures planned to be done in the coming years, or there are measures still ongoing. The government is supportive.
1	The CSR is half mentioned. About half of the CSR content is mentioned. Or it is mentioned by the government, but there are no concrete measures on it. Or it is mentioned, but the deadline is different from the CSR.
0	The CSR is not mentioned at all. Or words with similar meanings are not there at all. Or the government openly says no relevant measures will be taken.
NA	No NRP; NRP not in English.

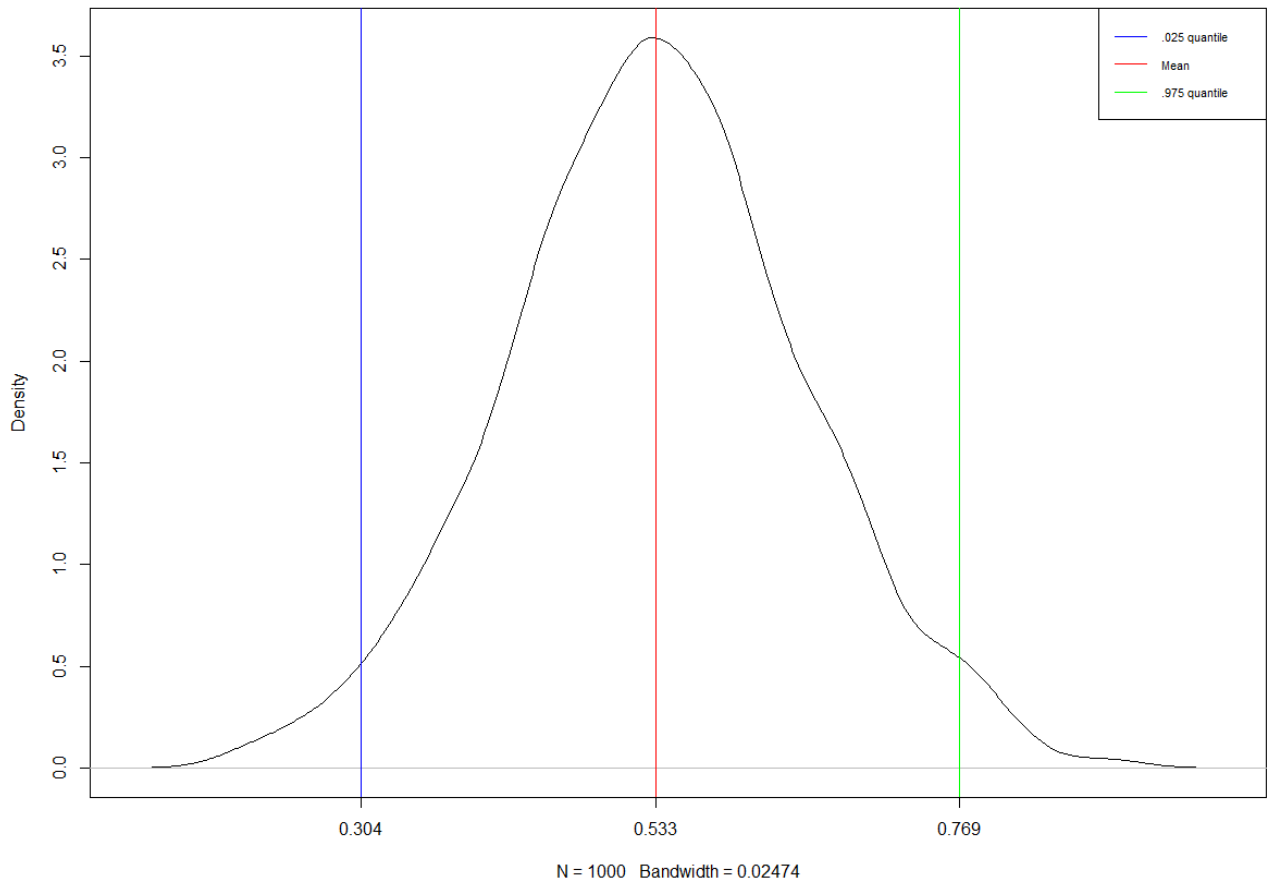
Note: this is the original coding scheme. In this paper the category of 0 and 1 are combined as based on the mechanism of response-changing, and they are recoded as 0. The category of 2 is recoded as 1 in this paper. However, the three categories of 0, 1, 2 are used as robustness check.

Appendix 5: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
Level of implementation (Commission)	1,862	2.447	0.847	1.000	2.000	2.000	3.000	5.000
Level of implementation (EGOV)	1,862	1.560	0.649	1.000	1.000	1.000	2.000	3.000
Response-reinforcing	1,565	0.555	0.497	0.000	0.000	1.000	1.000	1.000
Total number of CSRs	1,960	17.742	8.938	1	11	16	25	45
Total words of CSRs	1,960	19.940	14.992	2	11	17	24	181

year	2013	2014	2015	2016	2017	2018
Number of observations	470	541	260	256	222	211

Sector	public administration & business environment	financial sector	labour market, education and social policies	public finance & taxation	structural policies
Number of observations	264	179	703	517	297

Appendix 6: Density Plot of the Results of 1000 Bootstrapping Based on Model 10

Appendix 7: Model Results after Recoding the Independent Variable into Response-changing, Weak Response-reinforcing, and Strong Response-reinforcing

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
weak_response_reinforcing	0.54*** (0.15)	0.54*** (0.15)	0.54*** (0.15)	0.63*** (0.15)	0.63*** (0.15)	0.34* (0.16)	0.35* (0.16)	0.35* (0.16)	0.47** (0.16)	0.47** (0.16)
strong_response_reinforcing	0.90*** (0.13)	0.88*** (0.13)	0.88*** (0.13)	0.96*** (0.13)	0.96*** (0.13)	0.69*** (0.14)	0.67*** (0.14)	0.67*** (0.14)	0.80*** (0.14)	0.79*** (0.14)
number of csr		0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)		0.02* (0.01)	0.02 (0.01)	0.02* (0.01)	0.00 (0.02)
complexity of csr			-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)			-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
sector-financial sector				1.26*** (0.21)	1.28*** (0.21)				1.46*** (0.23)	1.47*** (0.23)
sector-labour market, education and social policies				0.15 (0.16)	0.16 (0.16)				0.21 (0.17)	0.21 (0.17)
sector-public finance & taxation				0.03 (0.18)	0.04 (0.18)				0.31 (0.19)	0.31 (0.19)
sector-structural policies				0.04 (0.19)	0.04 (0.19)				0.11 (0.21)	0.10 (0.21)
year-2014					-0.08 (0.14)					-0.03 (0.14)
year-2015					-0.27 (0.23)					-0.39 (0.25)
year-2016					-0.06 (0.24)					-0.20 (0.26)
year-2017					0.16 (0.27)					-0.04 (0.29)
year-2018					-0.28 (0.28)					-0.49 (0.31)
Log Likelihood	-1855.51	-1854.48	-1854.47	-1831.34	-1828.39	-1360.55	-1358.58	-1358.58	-1332.41	-1329.66
AIC	3721.0 1	3720.9 6	3722.9 3	3684.6 8	3688.7 8	2731.1 1	2729.1 6	2731.1 6	2686.8 3	2691.3 2
BIC	3747.6 7	3752.9 4	3760.2 5	3743.3 2	3774.0 8	2757.7 6	2761.1 5	2768.4 7	2745.4 7	2776.6 2
Num. obs.	1527	1527	1527	1527	1527	1527	1527	1527	1527	1527
Groups (country)	26	26	26	26	26	26	26	26	26	26
Variance: country: (Intercept)	0.35	0.36	0.36	0.36	0.35	0.38	0.41	0.41	0.42	0.38

***p < 0.001, **p < 0.01, *p < 0.05