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# How pre- and post-recruitment factors shape role perceptions of European Commission officials\*

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## Abstract

Individuals' role perceptions are central guides to their behavior and choices as members of an organization. Understanding organizational dynamics thus requires knowledge about the determinants of such role perceptions, as well as whether – and when – organizations can influence them. This article brings forward a theoretical framework allowing for both pre-recruitment (*extra-organizational*) and post-recruitment (*intra-organizational*) determinants of individuals' role perceptions, and examines its empirical implications using a large-N data-set of temporary officials in the European Commission. We find that intergovernmental and epistemic role perceptions are strongly linked to pre-recruitment factors (such as educational and professional background), whereas post-recruitment factors (such as length of affiliation and embeddedness within the Commission) are the main driving force behind supranational and departmental role perceptions. This heterogeneity in the importance of pre- and post-recruitment factors for distinct role perceptions has important consequences for conceptualizing organizational change.

**Keywords:** Role perceptions, Organisational behaviour, Seconded national experts, European Commission.

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## Introduction

Public administration scholarship has a long tradition of studying what shapes bureaucrats' beliefs and role perceptions (Gulick 1937; Hooghe 2005; Trondal 2006; Kassim et al. 2013). This is an important question because individuals' perceptions of their role(s) within an organization determine how they behave and what choices they make. The adoption of a particular role in a specific organizational setting indeed induces an alteration in people's behavior such as to fit the set of social expectations linked to that role. In other words, organization members' role perceptions are central guides to their behavioral patterns and choices. From the perspective of any – public as well as private – organization, this raises two important questions. The first is whether “staff express the organizational values embodied by their institutions” (Connolly and Kassim 2016: 717). International civil servants, for instance, can be expected to execute their tasks differently depending on whether they uphold nationally oriented norms, values, goals and codes of conduct (i.e. an *intergovernmental* role perception) rather than those oriented towards a mission and vision independent from particular national interests (i.e. a *supranational* role perception). The second question is whether – and under which conditions – organizations can (re)direct behavioral patterns among their members by influencing their role perceptions (March 1955; Cyert and March 1963; Olsen 2010; Egeberg 2012).

Our analysis aims to contribute to the latter question, which directly engages with the potential socializing power of (international) organizations. This question has triggered a substantial – and as yet unresolved – academic debate. Extensive disagreement indeed “persists about whether the beliefs of staff are formed before they join, after they enter the institution, or are shaped by instrumental calculation” (Connolly and Kassim 2016: 717). The vast literature on the European Commission (henceforth Commission) provides an illustrative example. Whereas some scholars portray the Commission as an organization that profoundly (re)directs the behaviour and roles among its staff (Egeberg 2006, 2012), others see it as an organization that merely reacts to (pre-socialization) processes at member-state level (Hooghe 2005). Similarly, whereas some scholars depict the Commission as strongly penetrated by national interests and reflecting the shadow of *extra*-organizational factors (Coombes 1970; Menon 2003), others see it as a neutral broker where staff is primarily conditioned by their *intra*-organizational belonging (Nugent 2001; Trondal 2010). Clearly, these two distinct views of the Commission reflect diametrically

opposing positions about the drivers of bureaucrats' beliefs and role perceptions within an organization. One view effectively entails that roles in organizations predominantly reflect *extra-organizational*, pre-recruitment factors such as educational and professional background (e.g. Hooghe 2005, 2012). The other view rather advocates that post-recruitment factors *internal* to organizations are paramount (e.g. Egeberg 2006, 2012) – such as length of affiliation and embeddedness in particular units within the organization.

Clearly, such an *either/or* approach is likely to be overly restrictive – or, at least, should be open to further theoretical and empirical scrutiny (Connolly and Kassim 2016). The first contribution in this article is to set out a framework incorporating *both* pre-recruitment (extra-organizational) *and* post-recruitment (intra-organizational) factors affecting actors' role perceptions. The empirical challenge related to such *both/and* approach is to confront both theoretical positions using the same dataset. We are able to do this by exploiting an exceptionally rich large-N data-set of European Commission civil servants incorporating information about *both* pre- *and* post-recruitment factors. As such, variables from both sides of the argument are included, which allows assessing their *relative* explanatory power for the role perceptions evoked by organization members. Our second contribution is linked to the fact that our theoretical framework covers four distinct role perceptions commonly associated with international civil servants – i.e. departmental, epistemic, intergovernmental and supranational roles (more details below). This provides a unique opportunity to derive novel and testable propositions about whether pre- or post-recruitment factors are more strongly linked to particular role perceptions. Connolly and Kassim (2016) likewise develop an empirical model covering both pre- and post-recruitment explanatory factors of Commission officials' roles. Yet, their analysis – in line with much of the foregoing literature on the Commission – is limited to “different definitions of supranationalism” (Connolly and Kassim 2016, 717), and thus cannot address the relative importance of pre- and post-recruitment factors for distinct role perceptions.

Our analysis leads to two novel findings. First, we show that temporary Commission bureaucrats primarily direct their role perceptions towards their unit and sub-unit within the organization (a departmental role), secondarily towards the organization as a whole (a supranational role), and thirdly towards their own expertise and professional group (an epistemic role). Different role

perceptions thus exist alongside each other, albeit at diverging strengths – much like social psychologists believe people have various social identities existing in ‘a hierarchy of salience’ (Stryker 1968: 560; see also Thoits 1983; Ashforth and Mael 1989). Second, ordered logistic regression models illustrate that *both* pre-recruitment intra-organizational *and* post-recruitment extra-organizational factors generally exhibit significant explanatory power with respect to role perceptions evoked by staff. Interestingly, the *relative* explanatory power of both sets of determinants differs substantially across distinct role perceptions. We find that intergovernmental and epistemic role perceptions are strongly linked to pre-recruitment factors (such as educational and professional background), whereas post-recruitment factors (such as length of affiliation and embeddedness within the Commission) are the main driving force behind supranational and departmental role perceptions. These findings indicate that the explanatory power of intra- and extra-organizational factors is role-specific, which has important consequences for how to think about organizational change and (re)design.

The remainder of the paper proceeds as follows. The next section outlines the theoretical arguments by first unpacking the dependent variable (i.e. organizational roles) and then deriving theoretical propositions that highlight the causal weight of extra- and intra-organizational factors, respectively. The subsequent steps include presentation of data, methods and empirical results, and, finally, a concluding discussion.

## Theoretical framework

### **Step I: Unpacking roles and role perceptions in organizations**

Organizations are multidimensional by exhibiting processes of both exploitation and exploration (March 2010), and should thus best be analyzed by fine-grained operational accounts to understand their diverse *modus operandi* (March and Olsen 1989). The diverse *modus operandi* of organizations become reflected in distinct actor-level roles, which may be complementary rather than contradictory, and are likely to become evoked to different degrees under different conditions (Ashforth and Johnson 2001). In the case of *international* organizations, for instance, inherent tensions are specifically assumed to exist between four different dynamics associated with four core roles: intergovernmental, supranational, departmental, and epistemic roles (Trondal 2006). Importantly, by shifting perceptions of loyalty towards national (i.e.

intergovernmental) rather than communitarian (i.e. supranational) ideals, organizational sub-units in the organization (i.e. departmental) and professional and expert communities (i.e. epistemic), subsequent decision-making within the organization will take different roads.

Specifically, both intergovernmental and supranational role perceptions uphold territorial preferences, concerns, and loyalties. A supranational role perception denotes that office holders share some norms, values, goals and codes of conduct that are directed towards the international organization broadly speaking. This entails that officials are loyal to a supranational mission and vision – or, at least, to some parts of it. Such civil servants are expected to acquire collective perceptions and independence from particular national interests. In contrast, intergovernmental role perceptions uphold nationally oriented norms, values, goals and codes of conduct, and entail that officials are loyal to a national mission and vision. In both cases, supranational as well as intergovernmental roles contain both the ‘true believers’ (who believe in the overall mission of the (inter)national organization and its finality) and the ‘sector enthusiasts’ (who believe in particular issues that the organization deals with and in the organization’s role in solving and handling these issues) (Trondal and Veggeland 2014).

A departmental role perception entails that office-holders see themselves as ‘natural, intelligent, generalist professionals who advise ministers’ (Richards and Smith 2004: 779). Such officials would tend to evoke inward-looking role patterns geared towards their ‘own’ organization – or, at least, some parts of it. The official is expected to employ classical Weberian civil servant virtues: i.e. being guided by formal rules and procedures, emphasizing party-political neutrality, attaching identity towards their unit and portfolio, and abiding by rules and procedures of their organization. This is the Westminster model that sees officials as neutral, permanent and loyal to the agency. Their role perception and loyalties are also directed inwards towards the organization to which they are primarily affiliated, and they perceive themselves as representatives of their portfolio and/or unit (Trondal 2006).

Finally, an epistemic role perception requires that office holders believe they enjoy great deal of professional discretion and are influenced by external professional reference groups. They are expected to prepare dossiers, argue and negotiate on the basis of their professional competences

and to legitimate their authority on scientific expertise (Haas 1992). Their behavior is expected to be guided by considerations of scientific and professional correctness and the power of the better argument. Their role perceptions and loyalties are primarily directed towards their expertise and educational backgrounds as well as towards those external professional networks to which they are affiliated (Trondal 2006).

## **Step II: Two propositions on the origins of roles in organizations**

Having presented the different roles available to members of (international) organizations, we now proceed to an assessment of the two distinct sets of intra- and extra-organizational factors determining their prevalence in organizations' staff. From a theoretical perspective, an emphasis on *intra*-organizational factors presupposes that norms, rules, and routines embedded in organizations offer guidelines and categories that structure organization members' search for satisficing and appropriate solutions (Cyert and March 1963; March and Olsen 1989; Murdoch, 2015; Schattschneider 1975; Simon 1957). Consequently, the roles and role perceptions evoked by organization members are expected to reflect their organizational embeddedness into organizational structures and organizational socialization processes, and thus treats roles and role perceptions as endogenous to organizations (Gullick 1937; March and Olsen 1983). By contrast, a theoretical framework stressing *extra*-organizational factors as the primary determinants of roles rather invokes a *thin* conception of organizations. Organizations are analytically viewed as (at best) intervening variables, and individuals' roles and role perceptions are treated as exogenous to organizations.

### Extra-organizational (pre-recruitment) factors

According to a 'thin' conception of organizations, organization members are individually pre-socialized outside organizations. They are 'pre-packed' before entering the organization. The theory of representative bureaucracy, for instance, claims that in order to understand governmental decision-making the demographic characteristics that office-holders bring into government institutions are pivotal (Pfeffer 1982; Selden 1997). Background characteristics of officials become particularly important when 'passive representation' leads to 'active representation'. Passive or descriptive representation refers to shared characteristics along (usually socio-demographic) dimensions of interest, whereas active or substantive representation

tends to refer to decision-making processes in the interest, or on behalf, of the represented. Although recent work on representative bureaucracy has often uncovered a link between passive and active representation, both forms of representation need not necessarily occur jointly or be causally connected (Murdoch et al. 2016, 2017a). Crucially, however, this theoretical framework presupposes that individual pre-socialization outside organizations is key to account for the origins of roles inside organizations.

Even so, individual pre-socialization – which might derive from, for instance, education, geographical origin, and individuals' career plans – may explain certain role perceptions better than others. First, we propose that an international educational background may be conducive to international organization members evoking a supranational role. *Ceteris paribus*, individuals with educational experiences from outside their home country or from truly international universities (e.g. the College of Europe, Bruges) are more likely to adopt a supranational role perception prior to entering an international organization than individuals with a national educational background. Individuals with a long educational pre-socialization within a university environment may also be more likely to adopt an epistemic role perception within international organizations than individuals with shorter socialization exposure in universities. Hence, one might expect that organization members with a doctorate are more likely to emphasize an epistemic role than officials without a doctorate.

The second proxy for individual-level pre-socialization concerns individuals' geographical origin, which is arguably of particular importance in international organizations. *Ceteris paribus*, those originating from relatively newer member-states in international organizations are expected to give priority to an intergovernmental role whereas those originating from older member-states are more likely to have become supranationally oriented before entering the international organization. This claim emphasizes a positive relationship between the length of extra-organizational socialization and the extent to which members develop shared perceptions and beliefs outside organizations. Protracted and intensive socialization prior to entering international organizations is conducive to internalization of certain norms, rules and interests of communities outside organizations (Checkel 2005; Beyers 2010).



Finally, demographic characteristics determining the level of individual's pre-socialization also include their past, present and future careers. Whereas studies of organizational pre-socialization have studied the effect of past organizational affiliations (Trondal et al. 2015), the effect of anticipated future career plans has attracted far less attention. We suggest that future career plans inside or outside the organization will affect the role perceptions of staff while active within the organization. The reason is that career plans outside international organizations are likely to increase the probability of early pre-socialization towards this possible future, and thus decrease the likelihood that organization members evoke a supranational role perception. Having a future career plan outside the international organization would thus increase the likelihood of organization members emphasizing an intergovernmental or even an epistemic role.

#### Intra-organizational (post-recruitment) factors

Two sets of theoretical arguments challenge this reliance on extra-organizational factors to explain individuals' roles and role perceptions in organizations. Whereas recent social constructivist work has carefully studied the potential importance of *re-socialization* processes inside organizations (Checkel 2005; Murdoch et al. 2017b), organization theory scholarship has concentrated on institutions' *organizational specialization* determining social interaction within public sector organizations (Trondal 2006; Egeberg 2006, 2012). Both literatures challenge the assumption that roles in organizations primarily originate from outside these organizations, but in distinct ways.

##### *(i) Organizational re-socialization*

A vast constructivist and institutionalist literature has revealed that the impact of pre-socialization outside organizations may be substantially modified by organizational re-socialization inside organizations (e.g. Checkel 2005; Murdoch et al. 2017b). At the organizational level, socialization is a dynamic process whereby organizations acquire some sense of shared values and meaning (Selznick 1992). At the actor level, organizational re-socialization reflects the process whereby individuals are induced into the norms and rules of a given community by loyalty and commitment (Pratt 2001; Selznick 1992). This literature advocates that the role perceptions evoked by organization members may change due to enduring exposure to organizations, accompanying new perceptions of appropriate roles. A similar argument is brought

forward in the neo-functionalist approach in European Union studies. These scholars likewise argue that the potential for re-socialization (i.e. a ‘shift of loyalty towards a new centre’; Haas 1958: 16) is positively related to the duration and intensity of interaction *within* organizations (e.g. within the Commission). This claim rests on socialization theory, which accentuates a positive relationship between the intensity of participation within a collective group and the extent to which members of this group develop certain shared perceptions of group belonging (Beyers 2010).

Similar to the pre-socialization mechanism, organizational re-socialization may also explain certain role perceptions more than others. This study applies ‘number of years of organizational exposure’ as a proxy of re-socialization (Beyers 2010; Suvarierol et al. 2013), and it is assumed that organization members with longer terms in office are more likely to evoke a supranational and departmental role compared to officials with shorter terms in office. The latter are more likely to evoke intergovernmental or epistemic roles.

#### *(ii) Organizational specialization*

Finally, an organization theory approach advocates that organizational behaviour – and the role perceptions emerging among organization members – reflects ways of organizing collective groups. It is maintained that the organizational context within which organization members are embedded make some behavior and roles more likely than others, and that organizations possess internal capacities to shape staff through mechanisms such as discipline (behavioral adaptation through incentive systems) and control (behavioral adaptation through hierarchical control and supervision) (Ostrom and Ostrom 2014; Page 1992; Weber 1978). These mechanisms ensure that organizations and their members perform tasks relatively independent of personal interests or outside pressure, but within boundaries set by their legal contracts and (political) leadership (Weber 1978). Emphasis is thus put on the internal organizational structure of collective groups. The Weberian bureaucracy model, for instance, provides a picture of formal organizations as creators of ‘organizational men’ (Simon 1957) and as a stabilizing element in politics more broadly (Olsen 2010). According to this model, organizations develop their nuts and bolts quite autonomously of society. The model implies that organization members may act upon roles that are shaped by the organizational structure in which they are embedded. It is thus assumed that

organizational behavior and role perceptions are framed by ‘in-house’ organizational factors. The underlying reason is that organizations provide collective order out of cognitive disorders by creating local rationalities upon which organization members may act (March and Shapira 1992). Organizational structures thus become systematic devices for simplifying, classifying, routinizing, directing and sequencing information towards particular decision situations (Schattschneider 1975).

Within this theoretical viewpoint, the role perceptions evoked by organization members are expected to be directed primarily towards those organizational units that are primary suppliers of relevant decision premises. Moreover, how this organizational structure is specialized is expected to help explain variation in the role perceptions evoked by staff. Most international organizations – including, for instance, the Commission – reflect three principles of horizontal specialization: sector/function (e.g., directorates and their sub-unit structure), ideology (e.g., the partisan composition of the leadership), and territory (e.g., the national recruitment base of central posts). Still, the sectoral and functional structure is generally paramount. The Commission administration, for instance, is horizontally specialized primarily according to the Germanic *Ressortprinzip*, which emphasizes ministerial autonomy vis-à-vis other ministries (Egeberg and Trondal 1999; Stevens and Stevens 2001). This principle tends to strengthen ‘silo thinking’ within each ministerial domain and to hamper inter-ministerial co-ordination and oversight, which is likely to result in less than adequate horizontal co-ordination across departmental units and better co-ordination within departmental units. As such, it can also be expected to bias organization members’ role perceptions towards a departmental logic and departmental roles (Trondal 2006).

## Data and methods

### Case selection and dataset

The dataset to empirically assess the theoretical propositions derived in the previous section is obtained from a web-based survey administered between January and April 2011 to all 1098 then active national officials working on time-limited contracts (maximum six years) in the European Commission (i.e. Seconded National Experts, or SNEs). The Commission is a particularly attractive empirical laboratory because it has gained substantial capacities to support its formal

independence vis-à-vis the Member States (Kassim 2006). It also has a strong political and administrative incentive to make its officials follow its routines and procedures, and thereby maintain its policy independence. This clearly makes it an international organization of prime interest for analyses of organizational role development (Hooghe 2005; Kassim et al. 2013; Suvarierol et al. 2013; Schafer 2014), since it can be viewed as a best-case setting for the possible importance of organizational re-socialization and organizational embedment.

While previous work on Commission officials has predominantly focused on staff with permanent contracts, we instead study officials with time-limited contracts (see also Murdoch and Trondal 2013; Murdoch 2015). The reason is that such staff offers an ideal analytical setting to evaluate the relative significance of extra- or intra-organizational determinants of roles in organizations. The temporary and often dual nature of short-term staff members' position creates substantial ambiguities regarding their organizational boundaries, which may influence the development of their role perceptions (Hammarssköld 1961; Mouritzen 1990; Murdoch and Geys 2012). Indeed, having a shorter time horizon within the organization than permanent office holders, temporary staff members have fewer incentives to take the 'long view' inside the organization, and may be particularly likely to be guided by extra-organizational factors. As such, a focus on temporary staff members stacks the deck *against* finding evidence for *intra*-organizational factors, which allows us to interpret our findings as a strong test for the (potential) relevance of such factors (relative to extra-organizational factors). Note also that SNEs in the Commission provide an excellent example of such temporary staff with a dual allegiance. They retain their long-term organizational affiliation with – and continue to receive their salary from – their home institution, while their position and the policy salience of their work is generally equivalent to that of permanent Commission staff – although with some restrictions on their responsibilities (e.g. in terms of representation or entering into commitments on behalf of the Commission) (Murdoch and Trondal 2013; Trondal et al. 2015). This creates considerable ambiguity in their position, which we can exploit in our analysis.<sup>1</sup>

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<sup>1</sup> Nonetheless, there are evidently also some limitations to using SNEs as our empirical laboratory. They represent a relatively small share of the total work force within the Commission (i.e. just over 7% of Administrator-level staff; Murdoch and Trondal 2013), and are most essentially birds of passage. This makes them a special case, and does not exhaust the descriptive potential as to the distribution – and drivers – of organizational roles in the entire organization. Future research should thus extend our analysis to other categories of staff within the Commission, and assess to what extent our findings generalize beyond our SNE sample.

Just over 400 out of all 1098 SNEs in the Commission provided responses to all relevant questions for the present study (i.e. response rate just under 38%). Although background characteristics of all SNEs were not made available to us, respondents' distribution across Directorate-Generals (DGs) compares to that observed for all Commission SNEs in 2011: i.e., we have more respondents from DGs concerned with statistics, taxation and climate action, compared to DGs dealing with purely administrative areas (such as human resources and language services). The distribution in terms of gender (40 percent female) and age (no birth-year represents more than 7 percent of the sample, and about 55 percent is between 33 and 47 years old) also appears a close match to the distribution of Commission permanent staff at the Administrator (AD) level. As such, we are confident that our sample reflects the central characteristics of the overall SNE population, and allows us to draw valid inferences.

### **Dependent variable**

To operationalize the role perceptions of national civil servants working on temporary assignments in the Commission, we exploit the same survey question previously employed by, for instance, Trondal (2006) and Murdoch and Trondal (2013). Specifically, the question presented to respondents in the survey is: 'In your daily work, to what extent do you feel you act as [an independent expert / a representative of your country's government / a representative of the Commission / a representative of your unit or department]?'. Respondents' answers to each of these four questions is coded using a six-point scale from 'fully' (coded as 0) to 'not at all' (coded as 5), and thus represents the extent to which they agree that a certain role characterizes them while working in the Commission. For ease of interpretation, we invert the scale in our analysis below (such that higher numbers reflect stronger assessment of a particular role). Observe that this question explicitly makes reference to respondents' daily work without mentioning their organizational setting and work environment. This is important since it thus makes salient their activities within the Commission without inducing unwarranted bias towards intra-organizational factors. Moreover, the question covers all four available role perceptions

outlined above, which enables us to gauge the relative importance of intra- and extra-organizational factor on each of these four roles.<sup>2</sup>

The empirical focus thus is on *actor-level role perceptions*. There are at least three rationales for applying this actor-level focus. First, the discretion available to bureaucracies is made real by individual office-holders (Trondal et al. 2015). Secondly, a thick conception of organizations and a subsequent endogenous idea of roles requires that organization members' 'preferences and conceptions of themselves and others' are profoundly biased and shaped by organizations (Olsen 2005: 13). Moreover, role perceptions are generalized receipts for action as well as normative systems of self-reference that provide codes for behavioural choices and feelings of allegiance to organizational members (Bevir et al. 2003; Mayntz 1999). Ultimately, such perceptions may guide – but not determine – the actual behavior of organizational members because roles provide 'conceptions of reality, standards of assessment, affective ties, and endowments, and (...) a capacity for purposeful action' (March and Olsen 1995: 30; Selden 1997: 140). Finally, the actual enactment of particular roles is hard to observe, such that self-perceived role perceptions are arguably the best available empirical proxy.

The distribution of answers over the four roles presented to our respondents is pictured in Figure 1. Figure 1 first of all illustrates that most SNEs express very strong departmental roles. That is, more than 75% agree 'fully' or 'very much' when asked whether they act as a representative of their unit or department within the Commission. This is not very surprising given that this unit/department is arguably their prime affiliation during secondment, and thus from a theoretical perspective may be expected to take a central position in individuals' role perceptions. Figure 1 also indicates that epistemic role perceptions (i.e. the feeling to act as an independent expert) play a relatively strong role for most SNEs. This arguably reflects the *raison d'être* of SNEs – namely, providing technical expertise not available to the Commission within its regular staff. Finally, we can see that expressions of national role perceptions are uncommon. Only few respondents agree to acting as a representative of their country's government, while most indicate that such role

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<sup>2</sup> Even so, there is clearly a risk involved in relying on one single survey question for operationalizing the dependent variable (Connolly and Kassim, 2016). Unfortunately, the need to keep the survey as short as possible did not provide us the opportunity to introduce multiple questions on respondents' role perceptions (and cross-validate our results across multiple measures).

matters ‘very little’ or ‘not at all’. The reverse pattern is observed for supranational role perceptions – i.e. respondents feeling they act as a representative of the Commission. National and supra-national role perceptions thus present a close mirror image in figure 1. Clearly, this may at least partially reflect socially desirable answers, given that the Commission formally requires its staff to act in an independent manner. Nevertheless, substantial variation in SNEs’ answers remains, which is much harder to account for by a simple social desirability assumption. It is this variation – which is effectively observed across all four role perceptions – that is exploited in the analysis below.

FIGURE 1 ABOUT HERE

### Estimation model

What drives the variation in role perceptions across SNEs observed in figure 1, and to what extent can this variation be linked to intra- and/or extra-organizational factors? To address this question, and empirically assess the theoretical propositions brought forward above, we estimate the following regression model (with subscript  $i$  for individuals):

$$\begin{aligned} \text{Role}_i = & \alpha + \beta \text{ Individual pre-socialization}_i + \gamma \text{ Organizational re-socialization}_i \\ & + \delta \text{ Organizational specialization}_i + \theta \text{ Controls}_i + \varepsilon_i \end{aligned} \quad (1)$$

where  $\text{Role}_i$  represents a set of four dependent variables for the four role perceptions included in figure 1 (i.e. Epistemic, Intergovernmental, Supranational and Departmental roles). Each of these is operationalized as individuals’ response on a scale from 0 to 5. As mentioned, we inverted the original scale such that 5 now implies strong agreement of having this role, whereas 0 reflects strong disagreement of having this role. Given this operationalization and measurement, we estimate equation (1) using an ordered logistic regression approach.

Our central explanatory variables are combined in three groups, reflecting the three main theoretical determinants of individuals’ role perceptions: i.e. individual pre-socialization, organizational re-socialization, and organizational specialization. As such, variables from both sides of the argument are included in the same regression model. This allows assessing their

*relative* explanatory power for each of the four role perceptions, as well as whether their relative explanatory power is *role-specific*. To start with intra-organizational factors, we operationalize organizational specialization via a set of indicator variables for SNEs' DG belonging. These DGs represent the primary suppliers of relevant decision premises for our respondents, and from an organization theoretical perspective thus can be expected to influence the role perceptions invoked by these individuals. We thereby differentiate between seven sets of DGs covering distinct policy areas (previously differentiated by Murdoch and Trondal 2013).<sup>3</sup> This approach directly reflects the idea that different policy areas in the Commission – and thus horizontal specialization by purpose – are generally believed to foster varying cultures of representation (Kennedy 2014). Organizational re-socialization is measured via SNEs' length of affiliation with the Commission, which exploits the idea that time is 'a decisive factor in a socialization process' (Beyers 2010: 913; see also Hooghe 2005).

To measure the potential influence of individual-level pre-socialization on SNEs' role perceptions, we introduce a number of variables capturing different aspects of their pre-Commission life. The importance of individuals' education is captured by two indicator variables equal to 1 when the respondent obtained a PhD degree (0 otherwise), or equal to 1 when the respondent studied abroad (0 otherwise). Then, we capture potential differences due to respondents' national backgrounds through two indicator variables equal to 1 when the respondent is from one of the six founding member states of the EU (0 otherwise), or one of the nine states joining the EU prior to the large-scale expansion in 2004 (0 otherwise). The last two measures assessing individual-level pre-socialization are the number of years (s)he has worked in the home institution and whether or not the respondent intends to return there upon the completion of the secondment (1 if 'yes', 0 if 'no').

Finally, we include respondents' age and gender as control variables. The effect of age is a priori unclear, but its inclusion may be important to avoid biased inferences on individuals' experience (since older individuals are likely to have longer work experience in their home institution). With

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<sup>3</sup> The seven policy areas are 'Market', which is comprised of DGs COMP, ECFIN, ENTR and MARKT; 'External Relations' is DGs ELARG, DEVCO, FPI, ECHO and TRADE; 'Social Regulation' is DGs CLIMA, EAC, EMPL, ENV, SANCO, HOME and JUST; 'Supply' is DGs ENER, CNECT, MOVE, RTD and TAXUD; 'Provision' is DGs AGRI, MARE and REGIO; 'Research' is DGs ESTAT and JRC; Central consists of BUDG, COMM, IAS, BEPA, SJ and OLAF (DG acronyms are explained in the appendix).



respect to gender, previous studies suggest that female officials in the Commission are somewhat less supranationally oriented than their male colleagues – both among permanent and contracted staff (Kassim et al. 2013; Trondal et al. 2015). Note also that, consistent with our theoretical framework, one might argue that any influence of social desirability on respondents’ answers to our role perception questions could depend in part on the organizational context. For instance, norms to seem supranational or remain in touch with home institutions may be stronger for some nationalities (or in some DGs) than others. As this undermines the independence of observations from the same country (or DG), we address this by clustering standard errors at the level of the SNEs’ country (or DG).

## Results

Our main findings are brought together in Table 1, where each column contains the regression result using respondents’ answers about one of the four role perceptions as the dependent variable. Each equation is estimated individually, though it is important to point out that joint estimation of all four equations does not affect the inferences drawn below. While the coefficient estimates included in Table 1 give important information about the determinants of individuals’ role perceptions, the bottom row of Table 1 is critical to evaluate the *relative* explanatory power of extra- and intra-organizational factors in explaining the different role perceptions evoked by staff. This row indeed presents the joint significance of different subsets of variables in the model (i.e. measuring individual pre-socialization, organizational re-socialization, and organizational specialization), and thereby provides a measure of the overall explanatory power of each subset of explanatory factors included in equation 1. Remember that the coding of our dependent variables in the analysis is such that a positive sign in Table 1 reflects a *stronger* prevalence of this particular role perception.

### TABLE 1 ABOUT HERE

Four main conclusions can be drawn from the analysis in Table 1. First, we find that all three categories of variables have some explanatory power in Table 1. More interestingly, however, our results strongly suggest that different types of role perceptions are linked to diverging sets of explanatory determinants. For instance, the strongest explanatory power with respect to

individuals' intergovernmental role perceptions derives from SNEs' intention to return to their home institutions after secondment, while epistemic role perceptions are most strongly linked to having a PhD and working in the Commission's research DGs. Since the latter DGs by construction host more SNEs in our sample with a PhD (31% versus 19% in the rest of the Commission) and with a university background (11% versus 5% in the rest of the Commission), individual pre-socialization linked to individuals' background characteristics seems to arise as the dominant force behind epistemic role perceptions. In contrast, organizational re-socialization (i.e. the time SNEs have spent in the Commission) and organizational specialization (i.e. embeddedness in market, supply and research DGs) are found to be the main driving forces behind supranational role perceptions in the Commission. Given that most previous work has tended to concentrate on one specific set of role perceptions (i.e. generally supranational roles; Hooghe 2005, 2012; Kassim et al. 2013; Connolly and Kassim 2016), this heterogeneity in the driving forces behind distinct role perceptions is an important observation.<sup>4</sup>

Second, while Hooghe (2005) finds that supranational roles among permanent Commission staff are driven by individual pre-socialization outside the Commission – notably at the member-state level – our results rather suggest that supranationalism inside the Commission is predominantly fueled by intra-organizational factors (notably organizational re-socialization and the organizational specialization of the Commission services). One potential explanation for these contrasting findings may lie in the fact that we study temporary rather than permanent staff, and that different mechanisms are at play for both groups. This is clearly an important avenue for further research in this field, and Kassim and Connolly (2016) take a number of important first steps in this direction.

Third, we find some supportive evidence of the hypothesis that *time* plays a decisive role organizational re-socialization processes. *SNEs' length of affiliation* within the Commission shows the expected relation to their supranational and departmental role perceptions. It also has a strong association with their epistemic role perceptions. Each of these role perceptions is

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<sup>4</sup> Departmental role perceptions appear hard to explain with the variables at hand, since only SNEs' age turns out to have a statistically strong and substantively meaningful impact. Clearly, it may be that such role perceptions are best explained by more disaggregated variables capturing unit/department-specific issues. These are, unfortunately, not available to us, such that this tentative explanation remains an important avenue for future research.

statistically significantly stronger when SNEs have spent more than four years in the Commission. Still, it should be noted at this point that our cross-sectional analysis cannot separate socialization and selection effects (Beyers 2010; Suvarierol et al. 2013). It may be that part of the observed effect here is driven by the self-selection of less integrated individuals out of the Commission structures and into alternative jobs. This would leave only the most integrated individuals in our sample of long-term SNEs, which may induce at least part of the effect observed in Table 1. Further clarification of this issue would require longitudinal datasets (see, for instance, Murdoch et al. 2017b).

Finally, we should note that organizational specialization is the only set of variables that consistently has statistically significant explanatory power for all four role perceptions included in the analysis. As such, it appears that organizational specialization represents an important overall determinant of organization members' role perceptions – independent of the exact type of role perception under analysis. Even so, the exact nature of organizational specialization may still matter for the development of specific role perceptions. Indeed, we observe that – relative to SNEs in external relations DGs (our reference category) – SNEs in research DGs are more likely to possess strong epistemic role perceptions, SNEs in supply and provision DGs have weaker intergovernmental role perceptions, and SNEs in market, supply and research DGs have weaker supranational role perceptions. This observation reconfirms the importance of carefully accounting for potential sources of heterogeneity in the driving forces behind distinct role perceptions (see above).

## Conclusion

Are organization members' role perceptions mainly driven by *extra*-organizational factors – such as individuals' pre-socialization outside organizations – or *intra*-organizational factors – such as organizational specialization and re-socialization? This paper has added two contributions to this persistent and as yet unresolved debate. First, theoretically, we presented a framework incorporating *both* extra- *and* intra-organizational determinants of individuals' role perceptions, which enables specifying conditions under which certain roles primarily develop endogenously or exogenously to organizations. Second, empirically, we examined the ensuing theoretical

propositions using a novel large-N data set on the role perceptions evoked by the temporary officials in the European Commission.

Our main findings can be summarized as follows. First, the descriptive statistics suggests that organization members primarily direct their role perceptions inwards towards their unit and sub-unit (a departmental role), secondarily towards the organization as a whole (a supranational role), and thirdly towards their own expertise and professional group (an epistemic role). While each of these role perceptions is observed to some extent in all respondents of our survey, the (relative) weight of them differs substantially across individuals. This finding is reminiscent of the argument in social psychology that individuals have various social identities linked to their embeddedness in multiple social categories including sex, race, nationality, religion, work group, and so forth (Thoits 1983; Ashforth and Mael 1989). Second, similar to the notion that the social identity actually invoked in a given situation depends on its *situational relevance* (i.e. how appropriate it is in a particular context; Ashforth and Johnson 2001: 32), we find that distinct role perceptions are linked to different sets of intra- and extra-organizational factors. This strongly suggests that future research should more carefully account for potential sources of heterogeneity in the driving forces behind specific role perceptions. Finally, with respect to the study of the temporal dimension of role development, we show that the time spent within an organization appears relevant for individuals' role perceptions. Still, given the potential self-selection of individuals with certain characteristics into (or out of) specific organizations, the research community urgently needs longitudinal data-sets able to pair dynamic theories of organizations with dynamic observations.

While our analysis includes both intra- and extra-organizational factors in the same regression model – and thereby can assess their *relative* explanatory power for distinct role perceptions – we do not analyze the conditions under which both sets of factors reinforce or modify each other. The main reason for excluding such interaction or mediating effects from our empirical analysis is that it requires clear theoretical guidance and hypotheses (to avoid ‘false’ positives likely to arise when testing the numerous possible interactions between all distinct sets of variables operationalizing the intra- and extra-organizational determinants of role perceptions). Although a

rigorous treatment of this issue credibly falls beyond the confines of our paper, it arguably constitutes a critical next step in this literature.

## References

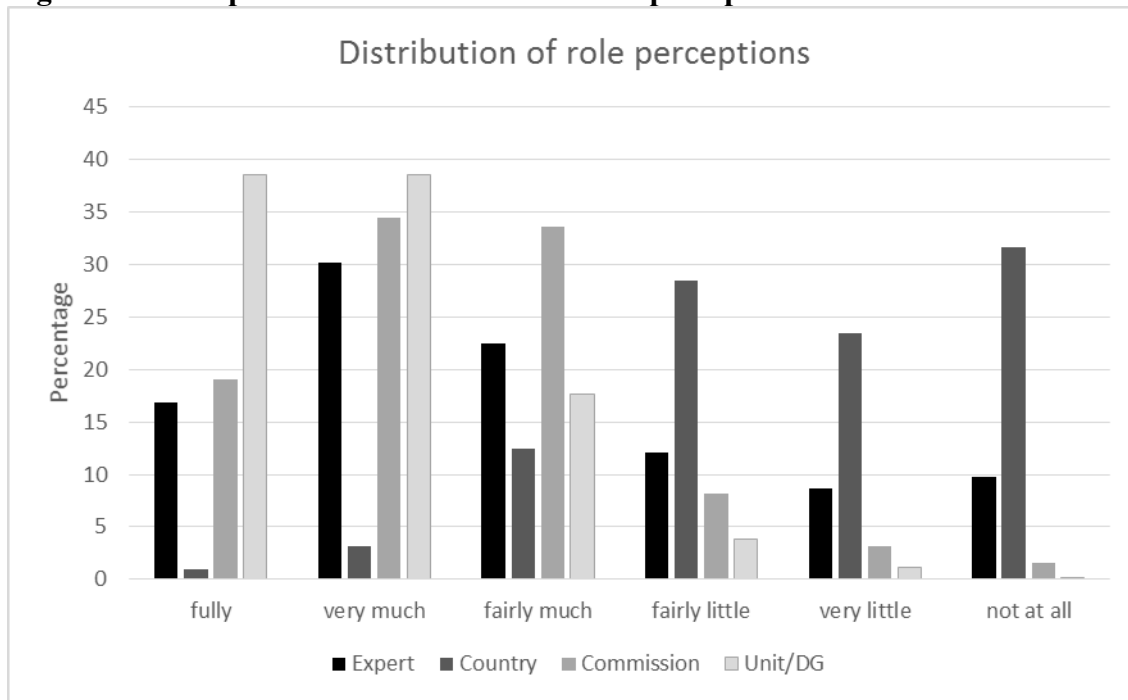
- Ashforth, B.E. and F. Mael (1989). Social Identity Theory and the Organization, *Academy of Management Review* 14(1): 20-39.
- Ashforth, B.E., and S.A. Johnson (2001). Which Hat to Wear? The Relative Salience of Multiple Identities in Organizational Contexts. In M.A. Hogg and D.J. Terry (Eds.), *Social identity processes in organizational contexts*. Philadelphia: Psychology Press, pp. 31-48.
- Bevir, M., R.A.W. Rhodes and P. Weller (2003). Traditions of Governance: Interpreting the changing role of the public sector, *Public Administration* 81(1): 1-17.
- Beyers, J. (2010). Conceptual and methodological challenges in the study of European socialization, *Journal of European Public Policy* 17(6): 909-920.
- Checkel, J.T. (2005). International Institutions and Socialization in Europe: Introduction and Framework, *International Organization* 59: 801-826.
- Connolly, S. and H. Kassim (2016). Supranationalism in Question: Beliefs, Values and the Socializing Power of the European Commission Revisited. *Public Administration* 94(3): 717-737.
- Coombes, D. (1970). *Politics and Bureaucracy in the European Community: A portrait of the Commission of the E.E.C.* London: Allen and Unwin.
- Cyert, R. and J.G. March (1963). *A Behavioral Theory of the Firm*. London: Blackwell.
- Egeberg, M. (2006). *Multilevel Union Administration. The Transformation of Executive Politics in Europe*. London: Palgrave.
- Egeberg, M. (2012). Experiments in supranational institution-building: The European Commission as a laboratory, *Journal of European Public Policy* 19(6): 939-950.
- Egeberg, M. and J. Trondal (1999). Differentiated Integration in Europe: The Case of the EEA Country Norway, *Journal of Common Market Studies* 37(1): 133-142.
- Gulick, L. (1937). Notes on the theory of organization. In L. Gulick and L. Urwick (Eds.), *Papers on the Science of Administration*. London: Routledge.
- Haas, E.B. (1958). *The Uniting of Europe*. Stanford: Stanford University Press.
- Haas, P. (1992). Epistemic Communities and International Policy Coordination, *International Organization* 46(1): 1-35.
- Hammaršköld, D. (1961). The international civil servant in law and in fact, *Lecture delivered to Congregation at Oxford University*, 30 May 1961.
- Hooghe, L. (2005). Several roads lead to international norms, but few via international socialization. A case study of the European Commission, *International Organization* 59(5): 861-898.
- Hooghe, L. (2012). Images of Europe: How Commission Officials Conceive their Institution's Role. *Journal of Common Market Studies* 50(1): 87-111.
- Kassim, H. (2006). The Secretariat General of the European Commission. In D. Spence (Ed.), *The European Commission*. London: John Harper Publishing.
- Kassim, H., J. Peterson, M. Bauer, S. Connolly, R. Dehousse, L. Hooghe and A. Thompson. (2013). *The European Commission of the 21<sup>st</sup> Century*. Oxford: Oxford University Press.
- Kassim, H. and S. Connolly (2016). Post-national or Multinational? Revisiting Nationality in the European Commission. University of East-Anglia, mimeo.
- Kennedy, B. (2014). Unravelling representative democracy: A systematic analysis of the literature, *Administration and Society* 46(4): 395-421.
- March, J.G. (1955). An introduction to the theory and measurement of influence, *American Political Science Review* 49(2): 431-451.
- March, J.G. (2010). *The Ambiguities of Experience*. Ithaca: Cornell University Press.

- March, J.G. and J.P. Olsen (1983). Organizing political life: What administrative reorganization tells us about government, *American Political Science Review* 77: 281-297.
- March, J. and J.P. Olsen (1989). *Rediscovering Institutions: The Organizational Basics of Politics*. New York: Free Press.
- March, J.G. and J.P. Olsen (1995). *Democratic Governance*. New York: The Free Press.
- March, J.G. and Z. Shapira (1992). Behavioral Decision Making Theory and Organizational Decision Theory. In M. Zey (Ed.), *Decision Making. Alternatives to Rational Choice Models*. Newbury Park: SAGE.
- Mayntz, R. (1999). Organizations, Agents and Representatives. In M. Egeberg and P. Laegreid (Eds.), *Organizing Political Institutions*. Oslo: Scandinavian University Press.
- Menon, A. (2003). Member states and international institutions: Institutionalizing intergovernmentalism in the European Union, *Comparative European Politics* 1(2): 171-201.
- Mouritzen, H. (1990). *The International Civil Service*. Aldershot: Dartmouth.
- Murdoch, Z. (2015). Organization Theory and the Study of European Union Institutions: Lessons and Opportunities, *Organization Studies* 36(12): 1675-1692.
- Murdoch, Z., and B. Geys (2012). Instrumental calculation, cognitive role-playing, or both? Self-perceptions of seconded national experts in the European Commission, *Journal of European Public Policy* 19(9): 1357-1376.
- Murdoch, Z. and J. Trondal (2013). Contracted government: Unveiling the European Commission's contracted staff, *West European Politics* 36(1): 1-21.
- Murdoch, Z., J. Trondal and B. Geys (2016). Representative Bureaucracy and Seconded National Government Officials in the European Commission. *Regulation and Governance* forthcoming.
- Murdoch, Z., S. Connolly and H. Kassim (2017a). Administrative Legitimacy and the Democratic Deficit of the European Union. *Journal of European Public Policy* forthcoming.
- Murdoch, Z., S. Connolly, B. Geys and H. Kassim (2017b). Socialization and Attitude Change in International Organizations: Evidence from a Two-wave Survey in the European Commission. University of Agder, mimeo.
- Nugent, N. (2001). *The European Commission*. Houndmills: Palgrave.
- Olsen, J.P. (2005). The Political Organization of Europe: Differentiation and Unification. The Stein Rokkan Memorial Lecture, ARENA working paper 23.
- Olsen, J.P. (2010). *Governing Through Institutional Building*. Oxford: Oxford University Press.
- Ostrom, E. and V. Ostrom (2014). *Choice, Rules and Collective Action*. Colchester: ECPR Press.
- Page, E.C. (1992). *Political Authority and Bureaucratic Power. A Comparative Analysis*. New York: Harvester Wheatsheaf.
- Pfeffer, J. (1982). *Organizations and Organization Theory*. Boston: Pitman.
- Pratt, M.G. (2001). Social identity dynamics in modern organizations: An organizational psychology/organizational behavior perspective. In M.A. Hogg and D.J. Terry (Eds.), *Social Identity Processes in Organizational Contexts*. Ann Arbor: Psychology Press.
- Richards, D. and M.J. Smith (2004). Interpreting the world of political elites, *Public Administration* 82: 777-800.
- Schafer, J. (2014). European Commission officials' policy attitudes, *Journal of Common Market Studies* 52(4): 911-927.
- Schattschneider, E.E. (1975). *The Semi-Sovereign People: A Realist's View of Democracy in America*. Austin: Holt, Rinehart and Winston.
- Selden, S.C. (1997). *The promise of representative bureaucracy*. New York: M.E. Sharpe.
- Selznick, P. (1992). *The Moral Commonwealth: Social Theory and the Promise of Community*. California: University of California Press.

- Simon, H. (1957). *Administrative Behavior* (2<sup>nd</sup> Edition). New York: Macmillan.
- Stevens, A. and H. Stevens (2001). *Brussels Bureaucrats? The Administration of the European Union*. Houndmills: Palgrave.
- Stryker, S. (1968). Identity Salience and Role Performance: The Relevance of Symbolic Interaction Theory for Family Research, *Journal of Marriage and Family* 30(4): 558-564.
- Suvarierol, S., M. Busuoic and M. Groenleer (2013). Working for Europe: Socialization in the European Commission and Agencies of the European Union, *Public Administration* 18(2): 181-200.
- Thoits, Peggy A. (1983). Multiple Identities and Psychological Well-Being: A Reformulation and Test of the Social Isolation Hypothesis. *American Sociological Review* 48(2): 174-187.
- Trondal, J. (2006). Governing at the frontier of the European Commission: The case of seconded national officials, *West European Politics* 29(1): 147-160.
- Trondal, J. (2010). *An Emergent European Executive Order*. Oxford: Oxford University Press.
- Trondal, J., and F. Veggeland (2014). The Autonomy of Bureaucratic Organizations: An Organization Theory Argument. *Journal of International Organizations Studies* 5(2): 55-69.
- Trondal, J., Z. Murdoch and B. Geys (2015). On Trojan Horses and revolving doors: Assessing the autonomy of national officials in the European Commission, *European Journal of Political Research* 54(2): 249-270.
- Weber, M. (1978). *Economy and Society*. Berkeley: University of California Press.



**Figure 1: Descriptive statistics on the four role perceptions**



Note: The figure presents respondents answers to question: ‘In your daily work, to what extent do you feel you act as [an independent expert / a representative of your country’s government / a representative of the Commission / a representative of your unit or department]?’ Entries reflect the share of respondents for each answer category.

**Table 1: Ordered logistic regression results**

	<i>Epistemic role</i>	<i>Intergovernmental role</i>	<i>Supranational role</i>	<i>Departmental role</i>
<b>Individual pre-socialisation</b>				
PhD	0.640 ***	-0.173	-0.299	-0.036
(dummy)	(3.24)	(-0.87)	(-1.24)	(-0.15)
Studyabroad	-0.237	-0.297	0.175	0.414 *
(dummy)	(-0.96)	(-1.09)	(0.85)	(1.94)
EU6	-0.031	0.091	-0.142	-0.015
(dummy)	(-0.12)	(0.24)	(-0.50)	(-0.07)
EU9	0.060	0.028	-0.091	0.366 *
(dummy)	(0.20)	(0.09)	(-0.44)	(1.67)
Home experience	0.0002	-0.004	0.012	0.028 **
(years)	(0.01)	(-0.23)	(0.62)	(1.99)
ReturnHome	0.181	0.542 **	-0.015	-0.263
(dummy)	(0.87)	(2.33)	(-0.07)	(-1.33)
<b>Organisational re-socialisation</b>				
<i>(reference group)</i>				
SNE years 1-2				
SNE year 3	0.135	0.265	0.293	-0.010
(dummy)	(0.75)	(1.12)	(0.94)	(-0.03)
SNE year 4	0.363	-0.019	-0.105	0.091
(dummy)	(1.20)	(-0.07)	(-0.39)	(0.34)
SNE year >4	0.618 ***	0.067	0.668 **	0.774 **
(dummy)	(2.81)	(0.23)	(2.26)	(2.37)
<b>Organisational specialization</b>				
<i>(reference group)</i>				
External Relations DGs				
Central DGs	0.456	0.296	-0.428	-0.559
(dummy)	(1.37)	(0.73)	(-0.83)	(-1.09)
Market DGs	0.557	0.365	-0.852 ***	-0.414
(dummy)	(1.53)	(1.63)	(-2.48)	(-1.43)
Social Regulation DGs	0.240	-0.121	-0.032	0.112
(dummy)	(0.83)	(-0.49)	(-0.11)	(0.46)
Supply DGs	0.223	-0.636 *	-0.613 *	-0.177
(dummy)	(0.65)	(-1.93)	(-1.75)	(-0.74)
Provision DGs	0.200	-0.597 *	-0.173	0.439
(dummy)	(0.72)	(-1.77)	(-0.38)	(0.88)
Research DGs	0.814 ***	0.271	-0.817 **	-0.220
(dummy)	(3.16)	(0.58)	(-1.99)	(-0.56)
<b>Control variables</b>				
Age	0.005	0.020	-0.005	-0.039 ***
(years)	(0.47)	(1.46)	(-0.36)	(-3.07)
Male	0.270	-0.365 **	0.273	0.332
(dummy)	(1.61)	(-2.01)	(1.41)	(1.60)
N	409	417	417	416
Wald chi2 (pre-soc)	16.95 ***	17.31 ***	5.68	10.70 *
Wald chi2 (re-soc)	7.92 **	1.56	14.37 ***	6.45 *
Wald chi2 (specialization)	18.11 ***	14.54 **	20.01 ***	12.25 *

Note: t statistics based on standard errors corrected for clustering at the country-level between brackets, \*\*\* significant at 1%, \*\* at 5% and \* at 10%. Wald Chi<sup>2</sup> attests to the joint significance of different subsets of variables in the model. The dependent variable are respondents' answers to the question: 'In your daily work, to what extent do you feel you act as [an independent expert / a representative of your country's government / a representative of the Commission / a representative of your unit or department]?' For ease of interpretation, the original six-point scale (ranging from 0 to 5) has been reversed such that higher numbers reflect stronger assessment of a particular role. DG groups are composed as follows:

'Market' is Directorate-Generals COMP, ECFIN, ENTR and MARKT (excluded reference group);

'External Relations' is Directorate-Generals ELARG, DEVCO, FPI, ECHO and TRADE;

'Social Regulation' is Directorate-Generals CLIMA, EAC, EMPL, ENV, SANCO, HOME and JUST;

'Supply' is Directorate-Generals ENER, CNECT, MOVE, RTD and TAXUD;

'Provision' is Directorate-Generals AGRI, MARE and REGIO;

'Research' is Directorate-Generals ESTAT and JRC;

'Central' consists of BUDG, COMM, IAS, BEPA, SJ and OLAF

## **Appendix: Acronyms of Commission Directorates-General and Services**

### Departments (Directorate-Generals)

Agriculture and Rural Development (AGRI)  
Budget (BUDG)  
Climate Action (CLIMA)  
Communication (COMM)  
Communications Networks, Content and Technology (CNECT)  
Competition (COMP)  
Economic and Financial Affairs (ECFIN)  
Education and Culture (EAC)  
Employment, Social Affairs and Inclusion (EMPL)  
Energy (ENER)  
Enlargement (ELARG)  
Enterprise and Industry (ENTR)  
Environment (ENV)  
EuropeAid Development & Cooperation (DEVCO)  
Eurostat (ESTAT)  
Health and Consumers (SANCO)  
Home Affairs (HOME)  
Humanitarian Aid (ECHO)  
Internal Market and Services (MARKT)  
Joint Research Centre (JRC)  
Justice (JUST)  
Maritime Affairs and Fisheries (MARE)  
Mobility and Transport (MOVE)  
Regional Policy (REGIO)  
Research and Innovation (RTD)  
Service for Foreign Policy Instruments (FPI)  
Taxation and Customs Union (TAXUD)  
Trade (TRADE)

### Services

Bureau of European Policy Advisers (BEPA)  
European Anti-Fraud Office (OLAF)  
Internal Audit Service (IAS)  
Legal Service (SJ)