Disagreement and dissent on a bench: a quantitative empirical analysis of the Czech Constitutional Court[*]

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1 Introduction

Empirical legal research has been slowly but surely finding it's outside the predominant US context. Historically though most of the empirical studies have been conducted in the US, especially the Supreme Court, context (such as Boyd, Epstein, and Martin 2010; Carrubba et al. 2012; Epstein,

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Landes, and Posner 2011). We now know that judgments are what judges had for a breakfast. Put less pompously, there are many theories and approaches for explanation of judicial behavior (Posner 2010). What we do not know is the extent to which these theories and explanations carry over to other legal systems and context.

Although it has been traditionally espoused that there has been a divide between the empirically oriented US legal scholarship, stemming from a different perception of the role of courts and judges, and the rest of the world (Hamann 2019, 416). Therein the judges empirically researched whether and to what extent they behave as for example political (Carrubba et al. 2012; Clark and Lauderdale 2010; Epstein and Knight 1997; Lauderdale and Clark 2014; Sunstein et al. 2006) or strategic (Cameron and Kornhauser 2017; Clark, Engst, and Staton 2018; Epstein, Landes, and Posner 2011; Epstein and Knight 2000; Kornhauser 1992b, 1992a; Posner 1993, 2010; Roussey and Soubeyran 2018) actors.

In contrast to, especially in European legal systems, such as the one at hand - Czechia, judges have been perceived as "proclaimers of law" and the law handed down by them (Hamann 2019, 417). Such a view had hindered empirical legal research in Europe. The lack of empirical legal research can be partially blamed on lack of high quality data, a prerequisite for any quantitative empirical research. At least so the story goes until recently. The interest in empirical legal studies has picked up in the last years across the whole continent, including studies on plethora of topics within Germany (Arnold, Engst, and Gschwend 2023; Coupette and Fleckner 2018; Engst et al. 2017; Wittig 2016), Spain and Portugal (Hanretty 2012), the UK (Hanretty 2020) or the EU institutions (Bielen et al. 2018; Brekke, Naurin, et al. 2023; Fjelstul 2023, 2019; Fjelstul, Gabel, and Carrubba 2022).

In our article, we set out to conduct an empirical research into the circumstances of disagreement on a court bench, we empirically research the circumstances of disagreement among the judges of the Czech Constitutional Court ("CCC") and we attempt to square the perception of judges as rational-economic beings (Epstein, Landes, and Posner 2011; Epstein and Knight 2000), the identification-disagreement model (Wittig 2016), and our empirical findings.

We find that…

Our article proceeds as follows. We start out with a theory. We explain the main differences between the expectations based on the theory in the CCC context in comparison to the SCOTUS

context and based on that we draw the hypotheses for the empirical part. We briefly explain the choice of our broad methodological framework: the Bayesian statistics. We proceed to test the hypotheses in empirical part divided into sections one per each hypothesis. We discuss the pitfalls of our research and potential room for improvement afterwards. Lastly, we conclude with a summary of our findings.

2 Theory

2.1 Overview of Accounts of Judicial-Decision Making

In general, there are multiple accounts of judicial decision-making process. At first, judges were perceived as deciding simply by means of law. Over time, the perception of judges changed The attitudinal accounts posited that judges are policy oriented. In other words, judges follow their own ideas and preferences when deciding cases. A lot of research has been conducted on whether, how and to what extent do judges indeed seek to advance the policies they desire (Berdejó and Chen 2017; Clark and Lauderdale 2010; Dworkin 1980; Kastellec 2016; Moyer and Tankersley 2012).

However, as of recently, the perspective on judges has shifted. Judges are now allegedly strategic and rational actors. One of the early pioneers of this approach Posner (1993) presents a simple model of judicial utility as function mainly of income, leisure and judicial voting. Further research followed the Posner mode and presented alternative models of judicial utility (based on economic psychology Foxall 2004). Replacing the policy oriented approaches, which hold judges to pursue political policy oriented goals, researchers now focus more on their self-interest in terms of career progression , higher income, more leisure, or lesser workload (Epstein and Knight 2000). For example, Clark, Engst, and Staton (2018) have in a quasi-experimental research design found that judges have preferences regarding their leisure, which then impacts their performance. Brekke, Naurin, et al. (2023) found that the CJEU justices take into account their workload when issuing orders.

2.2 Accounts of Dissenting Behavior

In their empirical study on dissenting behavior on the Supreme Court of the USA ("SCOTUS"), the proponents of the strategic account Epstein, Landes, and Posner (2011) base their theory

of dissents on the strategic-economic framework of self-interested strategically motivated judges. They presume that judges' "leisure preferences, or, equivalently, effort aversion, which they trade off against their desire to have a good reputation and to express their legal and policy beliefs and preferences (and by doing so perhaps influence law and policy) by their vote, and by the judicial opinion explaining their vote, in the cases they hear." The benefits of a dissenting opinion are the potential to undermine the majority opinion when the dissent is influential and the enhanced reputation that the judge enjoys. The dissenting opinion may be cited in the future by other judges or publicly analysed by legal scholars.

The theories they presume and hypotheses they test rest on this framework: in the policy-oriented framework, it would not make sense to expect judges to dissent less as their workload increases. They would still seek a way to advance their political agenda and research has shown that dissenting opinions usually correspond to exactly just that (Clark and Lauderdale 2010). However, in the strategic account, the higher the workload of a judge, the more pressing the effort costs of a dissent. Similarly, if a dissenting opinion imputes costs on the majority, we can theoretically expect it to respond to the dissent with a more thorough or detailed argumentation in the majority opinion.

Wittig (2016) in her dissertation thesis summarizes the potential motivations for judges to attach a separate opinion and, thus, to acquire additional costs: (1) potential of impacting future caselaw, (2) moral obligation to distance oneself from a decision that contradicts her values, (3) to convey certain image about oneself. These motivations also largely rely on the self-perceived stance towards separate opinions in general. The proponents of separate opinions view dissenting positively based on the separate opinions being able to enrich the legal debate, being a sign of judicial independence, increasing the legitimacy of any given decision for it makes the decision more accurate of the real discussion behind it. The opponents of separate opinions mainly argue that showing the inability to speak in one voice undermines a court's legitimacy or the reputation of the dissenting judge. Moreover, judges seeking the appreciation from the general public or legal community may act in their personal interests instead of in the court's interests. Lastly, separate opinions come at collegiality costs and may harm the mutual relationships of judges.

Wittig makes a sharp cut from the accounts coming mainly from the US, more specifically from the research on SCOTUS, and comes up with a model of separate opinions much better suited

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for the civil law context of the CCC, the identification-disagreement model. Wittig argues that the traditional all have limited explanatory power as such and also do not fit within the civil law context, as judges therein are deciding in a different context, bound by different procedural rules, and, thus, given differing, sometimes broader, sometimes more limited, avenues to give way to their preferences or strategic considerations. We now discuss the identification-disagreement model in more detail.

2.3   The Identification-Disagreement Model of Dissenting Behavior

Wittig introduces a non-formal model of separate opinions, the identification-disagreement model. Wittig amalgamates all the previously introduced potential motivations of judges for writing separate opinions into one cohesive and comprehensive model. We build on the identification-disagreement model theoretically and we use it to generate hypotheses for the CCC.

The model is made up of two dimensions. The first dimensions of the model covers the disagreement level. The second dimension concerns the judges' stance and degree of self-identification of their role as a judge, Wittig terms this as a *norm of consensus.* Separate opinions are then "a function of a judge's identification with the norm of consensus and the level of disagreement of judges (Wittig 2016, 74–75).

2.3.1   The norm of consensus

Calderia and Zorn (1998), p. 876-877 define a norm as "a long-run equilibrium outcome, which underpins the interaction between individuals and reflects common understandings as to what is acceptable behavior in given circumstances." The norm of consensus in turn defines the level of dissent that is acceptable at any given court (Narayan and Smyth 2005; Wittig 2016, 75.). Wittig's argument is two-fold. First, in civil law traditions unlike its US counterpart, the prevailing notion of the norm of consensus is that a court should not display disagreement. Second, the extent of adherence to the norm varies among judges,[1] depending on how they weight the costs and benefits they receive from following it (Wittig 2016, 75.).

A disonance between a proposed outcome for a case and any given judge's preferences are

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[1]We conducted interviews with the justices of the third term of the CCC. Many of them more or less directly confirmed that they either share this self-perception to a highly varying degree.

eventually bound to happen. In such a case, the judge can either express their sincere preferences by writing a separate opinion or they can adapt their behavior according to the norm of consensus and suppress the expression of her preferences. The second route has also been termed *dissent aversion* and theoretically fleshed out by Epstein, Landes, and Posner (2011). The decision of judge faced with such a conflict whether to attach a separate opinion or whether to avert their dissent is then a function of multiple potential utilities.

Wittig draws up three types of utility that dictate various levels of the adherence to the norm of consensus. Firstly, the intrinsic utility is maximazed whenever a judge behaves in accordance with their true values and opinions, setting aside their strategic or political considerations. Secondly, expressive utility is harnessed when one displays individuality and counters the notion of conformism. Thirdly, the reputational utility arises when one adjusts their publicly displayed preferences to the expectations of others. Wittig argues that maximizing the former two forms of utilities in a situation of disagreement leads to separate opinions, whereas maximazing the reputational utility in such a situation gives way to the norm of consensus, as the judge would otherwise jeopardize the court's legitimacy as well as their reputation for not adhering to commonly accepted norms (Wittig 2016, 76).

To some extent, we argue, even the third utility may lead to separate opinions insofar the individual reputation of a judge can in any way be linked to their non-conformity with the majority. An example that springs into mind is the late Justice Scalia, whose individual reputation among conservative circles would've been likely more jeopardized by siding with the liberal majority rather than with not adhering to the norm of consensus (Scalia 1998). The decision to dissent or to avert a dissent then is a result of an weighting between costs and benefits of these three types of utilities a judge derives from adhering or not adhering to the norm of consensus.

2.3.2 Disagreement on the bench

A disagreement on a bench arises when the opinions on the matter diverge during a discussion and a judge has a reason to object the majority view. The sources of disagreement are manifold. A major source is that of judge's individuality, each judge has varying preferences regarding the legal rules, dispositions of cases or simply their moral values. On top of that, case characteristics play an important role. Cases with more value-laden or controversial topics may give raise to more

disagreement, similarly highly complex cases leave more space for disagreement.

While we base our hypotheses mainly on Wittig's identification-disagreement model, we believe that strategic considerations as discussed by Epstein, Landes, and Posner (2011) can also come into play, albeit in a different institutional and regulatory setting than on SCOTUS. For example, workload varies across judge rapporteurs in the CCC context rather than across federal courts as in the US context. Therefore, we also base our hypotheses on the strategic account of judicial decision-making.

Within the CCC, we can observe a special example of circumstances giving rise to higher level of disagreement. Lastly, the research on judicial coalitions at the CCC has revealed that the third period of CCC between 2013-2023 is rather polarized and that there are two big coalitions of judges that clash against each other (Chmel 2021; Smekal et al. 2021; Vartazaryan 2022).[2] The articles rely primarily on network analysis of the dissenting opinions in the plenary proceedings and make inferential conclusions based on a rather superficial descriptive analysis. We hypothesize that should the relationship from the plenary sessions indeed exist, they should also carry over to the 3-member panel hearings. Our research question is whether having a 3-member panel composed of justices from both coalitions creates a fertile ground for more disagreement. If this shows to be true, it would provide further evidence to the two coalition theory of the CCC (Chmel 2021; Vartazaryan 2022; Smekal et al. 2021) as well as for the Wittig's identification-disagreement model.

We test whether the presumable existence of the coalitions carry over to and have any effect on the dissenting behavior of judges in the panels. Consistent with our theoretical part, we believe that such an situation is theoretically a special case of circumstances with higher level of disagreement. Our intuition suggests that if indeed there are two coalitions in the plenary proceedings, which strongly disagree between each other, such a disagreement should carry over to the panel level.

3 A brief primer on the CCC

The CCC consists of fifteen justices, out of which one is the president of the CCC, two are vice presidents and twelve associate justices (following the terminology of Kosař and Vyhnánek 2020). These fifteen justices are appointed by the president of the Czech republic upon approval of the

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[2]The Smekal et al. book goes so far to coin the first coalition as a more left-leaning and the second as a more right-leaning, whereas we are not convinced by this label.

Senate. The justices enjoy 10 years terms with the possibility of re-election; there is no limit on the times a justice can be re-elected. The three CCC functionaries are unilaterally appointed by the Czech president.

Regarding the competences, the CCC is a typical Kelsenian court inspired mainly by the German Federal Constitutional Court. The CCC enjoys the power of abstract constitutional review, including constitutional amendments. The abstract review procedure is initiated by political actors (for example MPs) and usually concerns political issues. Moreover, an ordinary court can initiate a concrete review procedure, if that court reaches the conclusion that a legal norm upon which its decision depends is not compatible with the constitution. Individuals can also lodge constitutional complaints before the CCC. Lastly, the CCC can also resolve separation-of-powers disputes, it can *ex ante* review international treaties, decide on impeachment of the president of the republic, and it has additional ancillary powers (for a complete overview, see Kosař and Vyhnánek 2020).

The CCC is an example of a collegial court. From the perspective of the inner, the CCC can decide in four bodies: (1) individual justices, (2) 3-member chambers (*senáty*), (3) the plenum (*plénum*), and (4) special disciplinary chambers. However, the 3-member chambers and the plenum play a crucial role. The plenum is composed of all justices, whereas the four 3-member chambers are composed of the associate justices. Neither the president of the CCC or her vice-presidents are permanents members of the 3-member chambers. Until 2016, the composition of the chambers was static. However, in 2016, a system of regular 2-yearly rotations was introduced, wherein the president of the chamber rotates to a different every 2 years. I am of the view that such a institutional change opens up potential for quasi-experimental research similar to the Gschwend, Sternberg, and Zittlau (2016) study utilizing judge absences within the 3-member panels of the German federal constitutional court. In general, the plenum is responsible for the abstract review, whereas the 3-member chambers are responsible for the individual constitutional complaints.

In the chamber proceedings, decisions on admissibility must be unanimous, decisions on merits need not be, therefore, two votes are necessary.[3] In the plenum, the general voting quorum is a simple majority and the plenum is quorate when there are ten justices present. The abstract review is one of the exceptions that sets the quorum higher, more specifically to 9 votes.

A judge rapporteur plays a crucial role (Chmel 2017; Hořeňovský and Chmel 2015 study the

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[3]Which enables the attachment of separate opinions

large influence of the judge rapporteurs at the CCC). Each case of the CCC gets assigned to a judge raporteur. The assignement is regulated by a case allocation plan.[4] She is tasked with drafting the opinion, about which the body then votes. The president of the CCC (in plenary cases) or the president of the chamber (in chamber cases) may re-assign a case to a different judge rapporteur if the draft opinion by the original judge rapporteur did not receive a majority of votes. Unfortunately, the CCC does not keep track of these reassignments.[5]

The CCC allows for separate opinions. They can take two forms: dissenting or concurring opinions. Each justice has the right to author a separate opinion, which then gets published with the CCC decision. It follows that not every anti-majority vote implies a separate opinion, it is up to the justices to decide whether they want to attach a separate opinion with their vote. Vice-versa, not every separate opinion implies an anti-majority vote, as the justices can attach a concurring opinion. In contrast to dissenting opinion, when a judge attaches a concurring opinion, they voted with the majority but disagree with its argumentation.[6]

The room for the dissenting judge and the majority to address each other differs between the two bodies. Based on our internal insight, there is less back and forth interplay between the judges, more akin to the SCOTUS context, and most of the communication is handled remotely in the panel proceedings, whereas the plenum meets regularly to discuss the cases in person. Despite that, procedurally speaking, the process of generating separate opinions is the same. In both cases, the rapporteurs are informed about the outcome of the vote, which is filed in the voting record. The separate opinion is then sent to the judge rapporteur before the decision is announced, as it cannot be added until after the announcement. It is important to note that judges have the possibility, not the obligation, to dissent. In other words, there is room for judges to give way to strategic considerations.

It may be concluded that the CCC takes after the american model of selection of justices,

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[4]The original term is *rozvrh práce*, which is usually translated as a *work schedule*, however, I borrow the term *case allocation plan* from Hamann (2019), p. 673

[5]More specifically, some decisions mention the reassignment. However, not all do, therefore an attempt to retrieve the information from the texts was highly unreliable. According to my internal insight, the CCC should always pass a short procedural decision when a reassignement takes place. I unsuccessfully attempted to retrieve the information with the right to information as the procedural decision is not available in electronic form and retrieving the full information would thus entail manually going through all paper files.

[6]Which makes it difficult to, for example, conduct the same point-estimation with data on dissenting behavior of justices as Hanretty (2012) has done on the Portuguese and Spanish Constitutional Courts.

with the president of the republic and the upper chamber being in the spotlight, but is also a typical example of a Kelsenian specialised court with concentrated constitutional review. The CCC stands out in how powerful its constitutional review is, having attracted the power to review even constitutional amendments, thus, the CCC is a powerful player in the Czech political system. Despite its strength, it's not mandated to behave as one voice. Separate opinions are enabled by law in two forms, dissenting and concurring opinion. The leeway given to the CCC justices as to when they can attach a separate opinion opens up space for strategical considerations as well as consideration of the norm of consensus. Therefore, we believe the CCC to be an interesting subject of empirical study into the dissenting behavior of judges.

4 Hypotheses

Following the identification-disagreement model, the likelihood of a separate opinion depends on judges' adherence to the norm of consensus and the level of disagreement. Therofore, the first two hypotheses are as follows:

H₁: *The probability of observing a separate opinion is higher for judges with low norm-identification than for judges with high norm-identification.*

H₂: *The probability of observing a separate opinion is higher for cases with a higher level of disagreement than in cases with a lower level of disagreement.*

According to Epstein, Landes, and Posner (2011): "[t]he economic theory of judicial behavior predicts that a decline in the judicial workload would lower the opportunity cost of dissenting and increase the frequency of separate opinions, and also that the greater the ideological heterogeneity among judges the more likely they are to disagree and so the higher the dissent rate will be." The authors find a positive relationship between the dissent rate, i.e., number of dissents divided by the number of cases, and caseload. Using the language of the identification-disagreement model, we believe leisure to be an example of the individual utility a judge may consider. We believe individual utility may also pull the other way: against a separate opinion. Therefore, our hypothesis 3 suggests:

H₃: *The higher the workload of a judge, the lower their likelihood of dissent.*

Epstein, Landes, and Posner (2011) address the issue of collegiality costs arising for a dissenting judge: "The effort involved in these revisions, and the resentment at criticism by the dissenting

judge, may impose a collegiality cost on the dissenting judge by making it more difficult for him to persuade judges to join his majority opinions in future cases." Based on this theory, they predict and indeed empirically confirm that "dissents will be less frequent in circuits that have fewer judges because any two of its judges will sit together more frequently and thus have a greater incentive to invest in collegiality." Put simply, the researchers compare the dissent rates between courts with differing number of members.

While it is hard for us to see how a variation between the number of members in the plenary session and 3-member panels could be isolated from a plethora of potential confounding variables, we are able to make use of the limited term of CCC judges. We test whether judges that are at the start of their term, and thus are aware that they will "sit together more frequently" invest in collegiality by averting separate opinions and whether when their term draws to an end, they give way to their disagreement. This presumes that the outlook of sharing the 10 year term with your colleagues at the beginning of judges' terms increases the collegiality costs of dissenting, whereas at the end of their terms, the collegiality costs decrease with the end of the shared term looming on the horizon.

Moreover, Wittig argues that the adherence to the norm of consensus varies across professions the justices enter into after their term: the closer they are to the end of their terms, the wider the gap between the professions. Justices that stay in the judiciary or go into scholarship are theoretically expected to adhere to the norm of consensus stronger, especially at the end of their terms. For reasons discussed bellow, such an approach does not fit well the CCC as its justices are rather old when they leave their office. We replace that with the profession that the justices held when they entered the office.

"Another part of the literature claims that the time judges have been in office plays a crucial role in their behavior at the court. This often called freshmen or acclimation effect draws on the argument that new judges undergo a period of adjustment until they get used to the workload and the procedures at the court. Brenner and Hagle describe it as follows: "The essence of an acclimation effect is that justices' normal behavior patterns are temporarily disrupted while adjusting to the Court's procedures and the workload" (1996, 239). Hence, in their earlier years at the court the judges are expected to write less separate opinions than later in their term in office (Lanier 2011; Boyea 2010; Hurwitz and Stefko 2004; Hettinger, Lindquist, and Martinek 2003; Brenner and

Hagle 1996; Hagle 1993)."

We pose the following research question: does the judges' likelihood of separate opinions across their terms as a result of differing collegiality costs and as a result of their professional history. We test the following hypotheses:

H$_4$: *The closer the date of the decision to the date at which the judge entered the office, the lower likelihood of a separate opinion, whereas the closer the date of the decision to the date at which the judge left the office, the higher the likelihood of a separate opinion.*

H$_5$: *The closer the date of the decision to the date at which the judge will enter or leave the office, the larger the difference between the professions.*

Lastly, we test whether the 3-member chambers with members from both judicial coalitions formed at the plenum make up a special case of circumstances of higher level of disagreement. Our research question is thus whether judicial coalitions formed in the plenary proceedings affect the amount of disagreement and, in turn, the likelihood of dissent of a judge in 3-member panels. Our hypothesis is as follows:

H$_6$: *Having a 3-member panel composed of members of both judicial coalitions increases judges' likelihood of a dissent.*

5   Empirical analysis

5.1   Data description

The data is based on the CCC dataset, which contains all decisions published by the CCC since its foundation, complete text corpus as well as plenty of metadata. We narrow our cases to all plenum decisions and to all 3-member chamber decisions on merits up until the end of 2022. The admissibility decisions of the 3-member chambers must be made unanimously, concurring decisions therein are a rarity.[7] The following plot confirms our intuition about the lack of variance among the admissibility decisions.

We skip the first decade of the CCC as the data on it are rather incomplete and inconsistent: For example, very few decisions contain the information on the composition in the text and many

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[7]On top of that out of the 39 separate opinions in admissibility 3-chamber decisions, 25 of that are a copypasta from justice Jan Filip and 6 are a copypasta from justice Josef Fiala in alike cases. Thus, there is only a few left for a meaningful analysis. The class imbalance of the remaining ~10 decisions would be too large against the XXX of all chamber decisions on admissibility
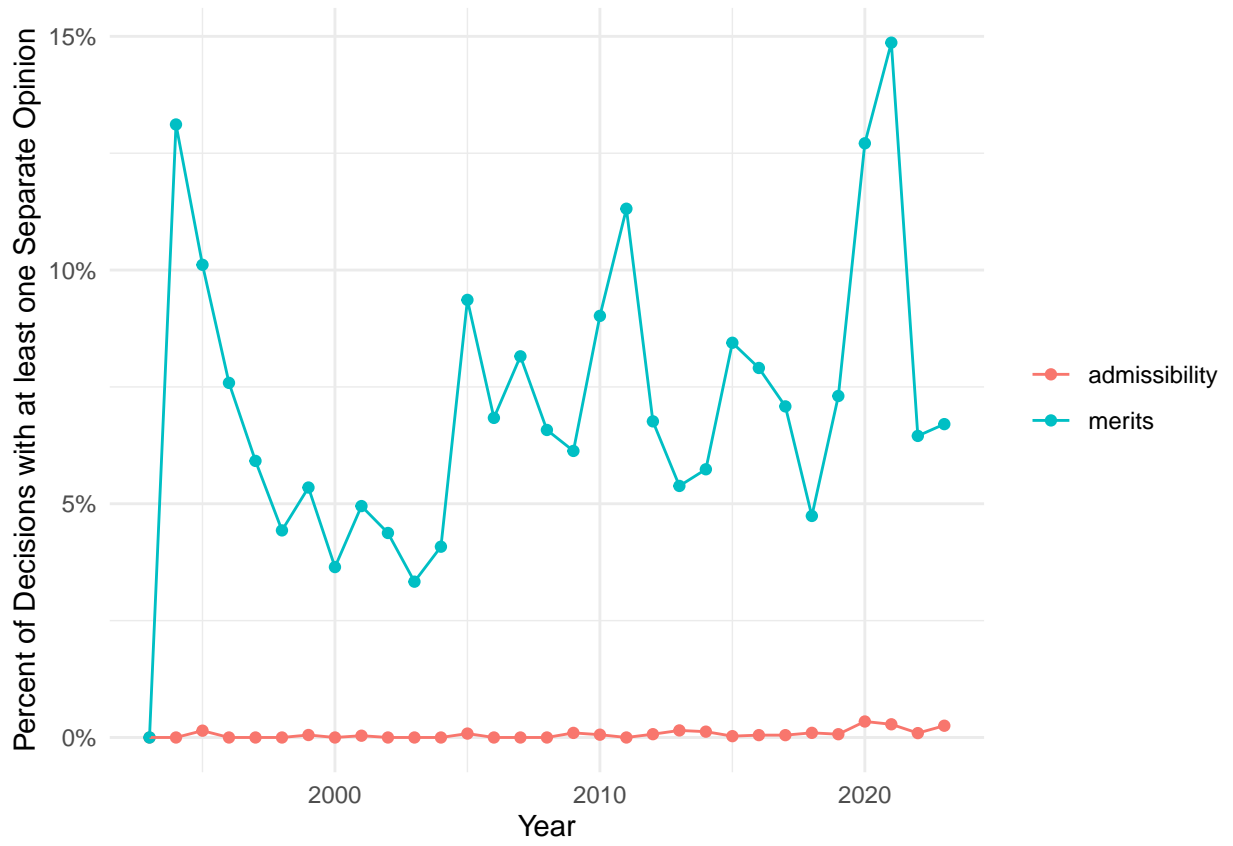
Figure 1: Percentage of Decisions with at least one Separate Opinion

do not contain the name of the dissenting judge at all. We also limit our analysis until the end of 2022 as the CCC entered its 4th term in 2023 and started to undergo a complete personal change.

The final dataset for analysis contains 4668 decisions of the CCC. Out of them, 81.2% are decisions by the 3-member chambers on merits, around 9.2% are plenum decisions on merits and the remaining 9.6% are plenum decisions on admissibility. At least one separate opinion contain 4.3% decisions out of the 3-member decisions, 11.2% decisions of the plenum decisionson admissibility, and 39.4% decisions of the plenum decisions on merits.

Table 1: Summary statistics for the whole dataset

Formation	Admissibility	Count	Ratio - Total	Dissents - Ratio
Chamber	merits	3862	81.2%	4.3%
Plenum	admissibility	456	9.6%	11.2%
Plenum	merits	436	9.2%	39.4%

5.2 Operationalization

5.2.1 Dependent variable: a separate opinion

We conceptualize our dependent variable as the information whether a justice attached a separate opinion to a decision or not.[8] Our dependent variable *Separate opinion* is thus a dummy variable that has two categories: either a justice did attach a separate opinion (1) or she did not in any given case (0).

We do not distinguish between a concurrence and a dissent. The reason is two-fold: practical and theoretical. Theoretically, the difference between the two lays only in the disposition of the case. The justices may equally disagree on the interpretation of legal rules, thus, in the case-space model terms (Landa and Lax 2007–2008; Lax 2011), the judge cut points in any given case differ even when a justice attaches "only" concurrence. The difference is that in the cases containing concurrence, the case facts may have completely accidentally fallen on the same side both of the

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[8]Unlike Wittig we do not call our dependent variable a judge's vote, as that refers to a slightly different thing within the CCC context. A judge may vote against the majority opinion but since they are not mandated to write a separate opinion, these do not necessarily overlap. Similarly, a judge may vote for a disposition of a case and still attach a concurrence separate opinion.

concurring judge as well as the majority, whereas in the cases containing a dissenting opinion, the case fell in between the cut points. We do not consider this phenomenon as theoretically interesting. Practically, it was impossible to distinguish between the two categories as some decisions simply do not contain the information whether a separate opinion was a concurring or dissenting opinion.

5.2.2   Explanatory variables

5.2.2.1   Disagreement potential
From the theoretical perspective it may be expected that the potential for disagreement varies across cases. In some cases, the disagreement potential is higher and, thus, the likelihood of a separate opinion is higher than in the cases with lower potential for disagreement. More specifically, we expect the potential for disagreement to be captured by two characteristics of any given case: (1) its complexity and (2) its controversy.

5.2.2.1.1   Complexity
As Corley, Steigerwalt, and Ward (2013), p70 argue and empirically measure, complexity of a case leads to less certainty and more ambiguity for the justices, which leads to a higher likelihood of disagreement. The authors define legal complexity as the number of legal issues a case has to address. True to the Corley, Steigerwalt, and Ward (2013) study, our operationalization of complexity relies on the assumption that the more legal issues there are in any given case, the higher the number of references to other laws and caselaw in the text of the corresponding decision.

The variable *concerned acts* captures the number of concerned ordinary legal acts on the legal-act level, the variable *concerned constitutional acts* captures the number of articles of the constitutional legal acts (mostly the Czech Constitution and the Charter of Fundamental Rights and Freedoms) and variable *caselaw* captures the number of citations to its own caselaw. The information on the first two variables is based on the metadata provided by the CCC, the last is based on the regular expressions search of the text of the decisions.

Table 2: Correlations between Independent Variables of Case Complexity

Variable	1	2	3
1. # of Ordinary Acts	—	—	—

2. # of Constitutional Articles .35	—	—
3. # of CCC References .32	.48	—

The first two we believe to be sufficiently different from each other: a typical right to fair proceedings case may concern only one constitutional article (the article 36 of the Charter) but many legal acts, whereas a typical separation of powers case concerning the Parliament concerns many consitutional articles but only few ordinary laws. On the other hand, the number of (concerned) constitutional acts and references to the CCC caselaw may be correlated. We therefore run diagnostics, which reveal that the citations to CCC caselaw and the number of references to constitutional acts are rather correlated. Because we believe the number of cited constitutional articles to better reflect the number of legal issues than the number of references to CCC case-law, we stick only to that variable.

5.2.2.1.2 Controversy In a similar vein, certain typically value-laden topics may generate more disagreement even if they raise only one or few legal questions. Typically, the restitution cases or cases concerning fundamental human rights have been coined as rather controversial. The CCC dataset contains a variable *subject_proceedings*, which contains the subject matter of any given case (a discrimination case, a separation of powers case and alike), and a variable *field_register*, which refers to the area of constitutional law that the case pertains (the right to fair trial, the right of freedom of speech).

We coded the topics as controversial when they concern any of the following subject matters or areas of constitutional law: discrimination, expropriation, restitution, the property of church, sexual orientation, the protection of consumer, fundamental human rights, social and cultural rights, the right of property, the freedom of speech, and the separation between the church and state. Therefore, the variable *controversial* is a dummy variable, which takes the value of 1 when the given case falls in any of the previously mentioned categories or it takes the value 0 when it does not.

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5.2.2.2 Norm-identification Secondly, our theory generated a second expectation: a relationship between adherence to norm of consensus and one's career choices. Theoretically, the actors socialized within the judiciary and its values are more likely to adhere to them than their peers who entered the CCC from the legal practice (Wittig 2016, 84–87.). Wittig confirms this intuition also empirically.

Wittig thus operationalizes the norm-identification as the justices' career choice after their term. The justices that chose to stay within judiciary or go back to being scholars are expected to more strongly identify with the norm of consensus, whereas the justices' that made different career choice are less likely to identify with the norm of consensus.

Figure 2: Kernel density of justices' ages at the start and and the end of their terms

Unfortunately, such a measure does not fit the CCC context. As the data shows, CCC justices start their term usually at the end of their career and a considerable part of them ends their term in their 70s, well past the retirement age in Czechia. Therefore, instead of operationalizing the norm-identification as the profession after their term, we operationalize it as the profession before

they entered the CCC. Quite handily, the CCC dataset contains such an information on the last profession before the CCC justices took up their office.

The variable *profession* contains the information on the justices' previous career choices and can take up the values of judge, scholar, politician, or lawyer. We can observe that the distribution of the professions has changed across time. While the 1st and 2nd terms of the CCC were quite balanced in terms of the professions, its 3rd term is heavily skewed towards the more to the norm of consensus adherent professions.
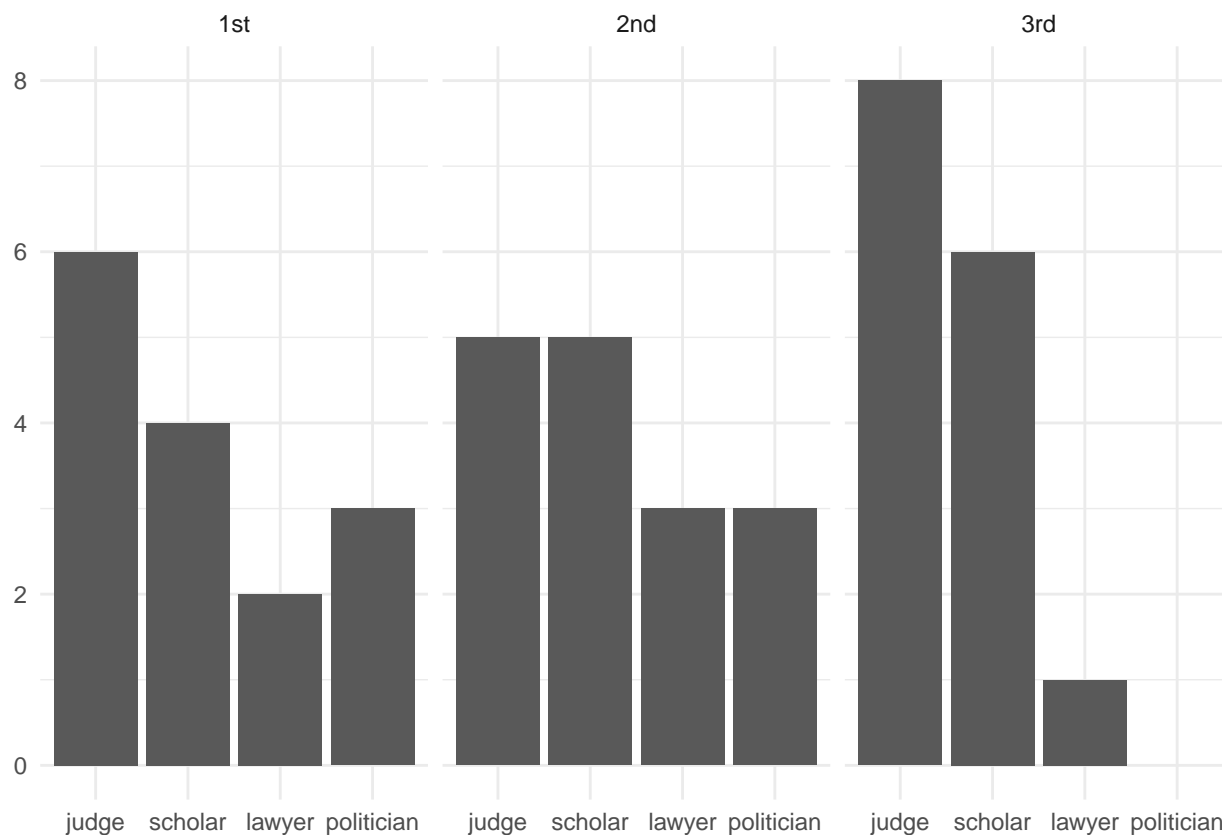
Figure 3: The distribution of professions of the CCC justices across its 3 terms.

5.2.2.3 Time in office The effects of the CCC justices' profession should according to our theoretical expectations vary depending on the time the judges have spent in their office. The closer to them taking up the office, the effects of their preceding profession should be more pronounced. Similarly, according to the collegiality costs hypothesis, the dissenting behavior of justices should vary across time. Namely, justices are expected to dissent less at the beginning of their terms, as the collegiality costs are higher, and to dissent more at the end of their terms, as the collegiality

costs of the disagreement are lower. We capture the *time in office* variables as the number of months a justice has left until their end of mandate from the date of decision. That allows us to account both for the collegiality costs hypothesis as well as the difference between professions hypothesis.

5.2.2.4 Workload Similarly to Brekke, Naurin, et al. (2023), we operationalize *workload* as the number of pending unfinished cases that any given judge has in the moment of any given decision as a judge rapporteur. We firstly mined the compositions of panels as well as the plenary from the text of the decision. We then calculated the number of unfinished cases each judge had at the time of any given decision as a judge rapporteur using the date of submission and of decision of a case.

To address potential sources of bias in our regression analysis, we consider the workload of a judge to be assigned as good as random. The cases once submitted to the CCC get assigned to individual judges rapoprteurs based on the alphabetic order of their surnames. There is no intentional case selection in play. Therefore the assignment of cases to judges is independent of other covariates and so is the outcome of interest.

5.2.3 Control Variables

Lastly, we control for multiple potential confounding variables. A confounding variable is such that (1) has an effect on treatment status and (2) has an effect on the outcome over and above its effect on the treatment status. Not controlling for confounding variables causes an omitted variable bias (Angrist and Pischke 2009, 2014; Bueno de Mesquita and Fowler 2021). Therefore, we need to carefully consider which additional features may induce bias rather than throw in as many additional variables as possible.

5.3 Identification Strategy

The hypotheses are tested by fitting a generalized linear model estimating the probability of a judge attaching a separate opinion with the dependent variable following a binomial distribution.

When identifying our model, we stood before a research choice that has been addressed differently by different researchers. As other studies on judicial decision-making relying on observational data, the data on judicial-decision making offers multiple potential clustering variables to fix effects. In their study of effect of french language on the performance of the judges at the CJEU,

Cheruvu (2019) fixed in their model the effects both on the individual judges as well as on the panel level. The reasoning behind fixed effects clustered on the formation were that it "[s]cholars argue the number of judges sitting on a chamber is a proxy for a cases' salience as more important cases tend to be assigned to larger chambers (e.g. Kelemen, 2012; Larsson and Naurin, 2016). Including chamber fixed-effects in my models addresses both heterogeneity in the collegial decisionmaking process of different chambers of judges and implicitly controls for the number of judges hearing a case." In a similar study, in which Clark, Engst, and Staton (2018) studied the effect of leisure on judicial performance.[9], in which the the author fixed effects were included in the model.[10] Brekke, Fjelstul, et al. (2023) in a study on the usage of orders at the CJEU built a logistic regression model with subject matter fixed effects.

5.4   Results

The results reveal quite an interesting trend at the CCC. Standard errors are clustered at the level of the unique combination of three judges deciding each case (that is, the panel) to avoid any downward bias in uncertainty that might result from different numbers of observations from the circuits.

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[9]Also measured as time for a judge to decide a case similarly to the Cheruvu (2019) study.
[10]Which would correspond to the judge rapporteur in our case.

Table 3: Results from the Logit Model

	(1)
(Intercept)	−3.678***
	(0.168)
n_concerned_acts	0.052***
	(0.009)
n_concerned_constitutional_acts	0.112***
	(0.010)
n_citations	0.031***
	(0.003)
merits_admissibilitymerits	−0.212*
	(0.105)
judge_professionlawyer	−0.257
	(0.260)
judge_professionpolitician	0.650*
	(0.273)
judge_professionscholar	0.323*
	(0.154)
time_in_office	−0.003+
	(0.002)
controversial	0.635***
	(0.114)
workload	−0.003***
	(0.001)
judge_professionlawyer × time_in_office	0.003
	(0.004)
judge_professionpolitician × time_in_office	−0.014**
	(0.004)
judge_professionscholar × time_in_office	0.001
	(0.002)
Num.Obs.	21 741
AIC	6670.2
BIC	6782.0
Log.Lik.	−3321.075
F	56.183
RMSE	0.19

6 Conclusions

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