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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, 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 decision-making behavior stemming mainly from the US context (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 or strategic actors.(Carrubba et al. 2012;

Clark and Lauderdale 2010; Epstein and Knight 1997, 2000; Lauderdale and Clark 2014; Sunstein et al. 2006; Cameron and Kornhauser 2017; Clark, Engst, and Staton 2018; Epstein, Landes, and Posner 2011; Kornhauser 1992b, 1992a; Posner 1993, 2010; Roussey and Soubeyran 2018).

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. 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).

Such a view also goes against the possibility of a dissenting voice. A dissent shows lack of unity at the court. How that may be when a court is a proclaimer of law? Unsurprisingly thus, the possibility of attaching a separate opinion allowed mainly at the constitutional courts in Europe has already caught scholarly attention. In the US context, Epstein, Landes, and Posner (2011) have tested to what extent do US judges behave strategically when attaching separate opinions. In the European context, K. Kelemen (2017) offers a mainly theoretical comparative overview of the various regimes of dissenting behavior across European courts. Hanretty has made use of dissenting behavior of Spanish and Portugese judges to conduct a point estimation of location of the location of the judges (Hanretty 2012) and to investigate what does a dissent reveal about the dimension across which the disagreement runs on Estonian Supreme Court (Hanretty 2015). Most importantly, Wittig (2016) has put forward and empiricall tested a theoretical model of dissenting behavior tailored at the European context that aims to overcome the shortcomings of the traditional accounts of judicial behavior stemming from the US context.

In our article, we pick up on this change and 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 strategic 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. In section 2, we lay out theory of dissenting behavior. We mainly focus on the disagreement-identification model. In section 3, we introduce the CCC. We discuss its institutional setup, its procedures and, most importantly, the rules concerning separate opinions. In section 4, we draw hypotheses based on the general theory applied to the specific institutional setup of the CCC. In section 5, we empirically test the hypotheses. We describe our data, we explain how we operationalized our variables, we describe our identification strategy, and lastly we discuss the results. Section 6 concludes.

2 Theory

In the following section, we describe the relevant theory for our paper. In section 2.1, we concisely introduce the general accounts of judicial decision-making. In section 2.2, we switch focus to judicial decision-making in the context of separate opinions. More specifically, we discuss how strategic considerations impact dissenting behavior of judges and we touch upon the identification-disagreement model. Lastly, in section 2.3, we delve into Wittig's identification-disagreement model. We discuss its two main components, the degree of adherence to the norm of consensus as well as the disagreement potential.

2.1 Overview of Accounts of Judicial-Decision Making

A separate opinion is generated in the process of judicial decision-making. The accounts of the nature of judicial decision-making have evolved over time. At first, judges were perceived as deciding simply by means of law. Although the originalists of today would still subscribe to such a view, over time, the perception of judges has 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; Gschwend, Sternberg, and Zittlau 2016).

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). They argue that judges as "(1) social actors make choices in order to achieve certain goals, (2) social actors act strategically in the sense that their choices depend on their expectations about the choices of other actors, and (3) these choices are structured by the institutional setting in which they are made." (Epstein and Knight 2000, 626) We now zero in on the theories of dissenting behavior as a subset of judicial decision-making.

According to standard individual rational dissent theory (Garoupa and Botelho 2022; Garoupa, Salamero-Teixidó, and Segura 2022), a potential dissenter balances the costs and benefits of issuing a dissenting opinion (the analysis also applies to concurring opinions, where costs and benefits are likely to be smaller in magnitude)

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 of judicial decision-making Epstein, Landes, and Posner (2011) base their theory of dissents on the strategic-economic framework of self-interested strategically motivated judges. In general, "a potential dissenter balances the costs and benefits of issuing a dissenting opinion." (Garoupa and Botelho 2022; Garoupa, Salamero-Teixidó, and Segura 2022). Epstein, Landes, and Posner (2011) posit that judges have "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." Therefore, a dissenting opinion comes at costs (trade offs) and comes with potential benefits that the judges strategically weight against each other.

The utility 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. Epstein, Landes,

and Posner (2011) also argue that the judges strategically take into account collegiality costs. The collegiality costs are lower at courts that sit in larger panels, whereas they are bigger at courts that decide in smaller panels as the justices have to spent time in a smaller circle of their colleagues. Moreover, they predict that the justices may reap benefits of averting a dissent whenever they face a high workload. In that, they free up their hand to take care of more pressing work. Epstein, Landes, and Posner (2011) then empirically verify to what extent does their theory hold. They find that the US judges indeed take into account the reputation utility, the collegiality costs as well as their workload.

In the European context, Wittig (2016) in her dissertation thesis on separate opinions at the Federal Constitutional Court of Germany ("GFCC") 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.

In her theory of dissenting behavior, 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 better suited 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 policy 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. 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). We base our theory on the identification-disagreement model and we use it to generate hypotheses for the CCC. Therefore, we now delve into the two dimensions deeper. We start with the norm of consensus and then we move on to the disagreement

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

[1] We conducted interviews with the justices of the third term of the CCC. Practically all of them more or less directly confirmed that they share the view that judges should not display dissent at a civil law court to a very varying degree.

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 maximized 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 maximizing 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 that even the third utility, the reputational 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. For example, 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. The sources of disagreement are seemingly manifold. To elucidate them theoretically, we rely on the case-space model.

The case-space model is a theoretical model developed in an attempt to model the idiosyncrasies of court decision-making, i.e. that a court is a body resolving disputes, cases (Landa and Lax 2007–2008; Lax 2011). It differs from political science policy-space models in that that it incorporates the

role of law. In the case-space model, the way to represent a case is by locating it in a n-dimensional space of of possible cases, the case-space. A case then denotes a legally relevant event that has occurred out of many that could have occurred. Put more simply, a case is a bundle of legally relevant facts. A legal rule then is a cut, a cut point when the case-space is one-dimensional, that divides the case-space. An individual disposition of a case is then the judgment of an individual judge of the case depending on their preference over legal rules (the cut point) and the location of the case in the case-space. In other words, if the case at hand falls to one side of the judge's cut point, then they vote for certain outcome, if it falls on the other side, they vote against it.

Landa and Lax (2007–2008) draw from the case-space model multiple theoretical sources of disagreement. The first and clear source of disagreement among judges is that about facts. Landa and Lax (2007–2008) conceptualize a couple of other sources of disagreement: which dimensions should be relevant under any given legal rule, disagreement about "thresholds" within dimensions and a couple of more sources of disagreement, which all can be summarised as a disagreement about the legal rule.

To this end, we simplify the model into two similar characteristics that concern the facts and the legal rule: case complexity and case controversy. Case complexity in our understanding refers to the number of legal issues that a case has touched upon. In line Landa and Lax (2007–2008) we suppose that the more legal rules there is in play in any given case, the more room for disagreement about rules. We are also able to distinguish between different types of legal issues. Case controversy refers to the facts. There are subjects matters that we believe are more prone to

2.3.3 Strategic considerations

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 one of our hypotheses on the strategic account of judicial decision-making. Rather than testing all potential sources of strategic considerations, we zero in on two specific sources of thereof, namely the role of collegiality costs and workload.

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 judges.

The importance of leisure and workload on judicial decision-making has already caught attention of the empirically oriented legal scholarship. Clark, Engst, and Staton (2018) have in a quasi-experimental difference-in-differences research design found that judges have preferences regarding their leisure, which then impacts their performance. They found that whenever a team of a US Federal Court judge's alma mater plays a basketball game, the time to process a decision increases for that respective judge and the quality of their work decreases. Brekke, Naurin, et al. (2023) found that the CJEU justices take into account their workload when issuing orders. In their paper on dissenting behavior of the SCOTUS justices, Epstein, Landes, and Posner (2011) found among others that judges strategically decide to write fewer dissenting opinions whenever the workload on their court increases. The evidence although overwhelming hasn't been one sided though. Songer, Szmer, and Johnson (2011) found no relation between workload and dissent rate at the Supreme Court of Canada.

The CCC's institutional set up also offers room for judges to adjust their behavior according to the workload they face. We now introduce the CCC, its institutional and procedural background, its powers as well as its composition.

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 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.

In the chamber proceedings, decisions on admissibility must be unanimous, decisions on merits need not be, therefore, two votes are necessary.[2] 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 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.[3] 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.

[2] Which enables the attachment of separate opinions

[3] 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

Unfortunately, the CCC does not keep track of these reassignments.

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.[4]

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, 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]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 Portugese and Spanish Constitutional Courts.

4 Hypotheses

We draw multiple hypotheses from our theory. Firstly, following the identification-disagreement model, the probability of a separate opinion depends on judges' adherence to the norm of consensus and the level of disagreement. Therefore, the first two hypotheses are as follows:

H_1: *The probability of observing a separate opinion is higher for judges with low norm-identification than for judges with high norm-identification.*

H_2: *The probability of observing a separate opinion is higher for cases with a higher level of disagreement potential than in cases with a lower level of disagreement potential.*

The key dimension across which the extent of norm-identification may be theoretically expected to vary across judges is the professional background of the judges. The judges socialized within the judiciary are more likely to adhere to its values than those coming outside of it. In other words, CCC judges being appointed from the ranks of the judiciary are expected to adhere to the norm of consensus more than the rest. That applies especially strongly within the continental legal system, in which voicing a disagreement is usually prohibited within the ordinary judiciary. In Czechia, apart from the CCC and the Supreme Administrative Court, no separate opinions are even legally allowed. Therefore, the CCC justices coming out of the judiciary are socialized in an environment, in which voicing a dissent is not even allowed by law. On the other hand, lawyers or justices recruited from the ranks of the politicians are not socialized from within the judiciary and are used to defending their own opinion, or at least they are not required to hide their disagreement. However, we also theoretically expect that the difference between the professions should wane over time as the non-judicial justices get accustomed to the role of a CCC judge. Our hypothesis 3 suggests:

H_3: *The closer the date of the decision to the date at which the judge entered, the larger the difference between the probability of observing a separate opinion of justices coming from judiciary and of justices coming outside judiciary.*

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 [...]." Using the language of the identification-disagreement model, we believe leisure to be an example of the individual utility a judge may consider. Contrary to Wittig, we believe individual utility may

also pull the other way: against a separate opinion. Therefore, our hypothesis 4 suggests:

H_4: *The higher the workload of a judge, the lower the probability of them attaching a separate opinion.*

Moving on to the collegiality costs, 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.

H_5: *The closer the date of the decision to the date at which the judge entered the office, the lower probability 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 probability of a separate opinion.*

5 Empirical analysis

We now move onto the empirical part of our paper. First, we describe the data we collected. Second, we explain how we operationalized the variables included in our hypotheses. Third, we explain our identification strategy. Lastly, we present the results of our model.

5.1 Data description

The data is based on the CCC dataset (Paulík 2024), which contains all decisions published by the CCC since its foundation, complete text corpus as well as plenty of metadata. The whole dataset is available at Zenodo. 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.[5] Fig. @ref(fig:separate-opinion-ratio) 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

[5]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 all chamber decisions on admissibility

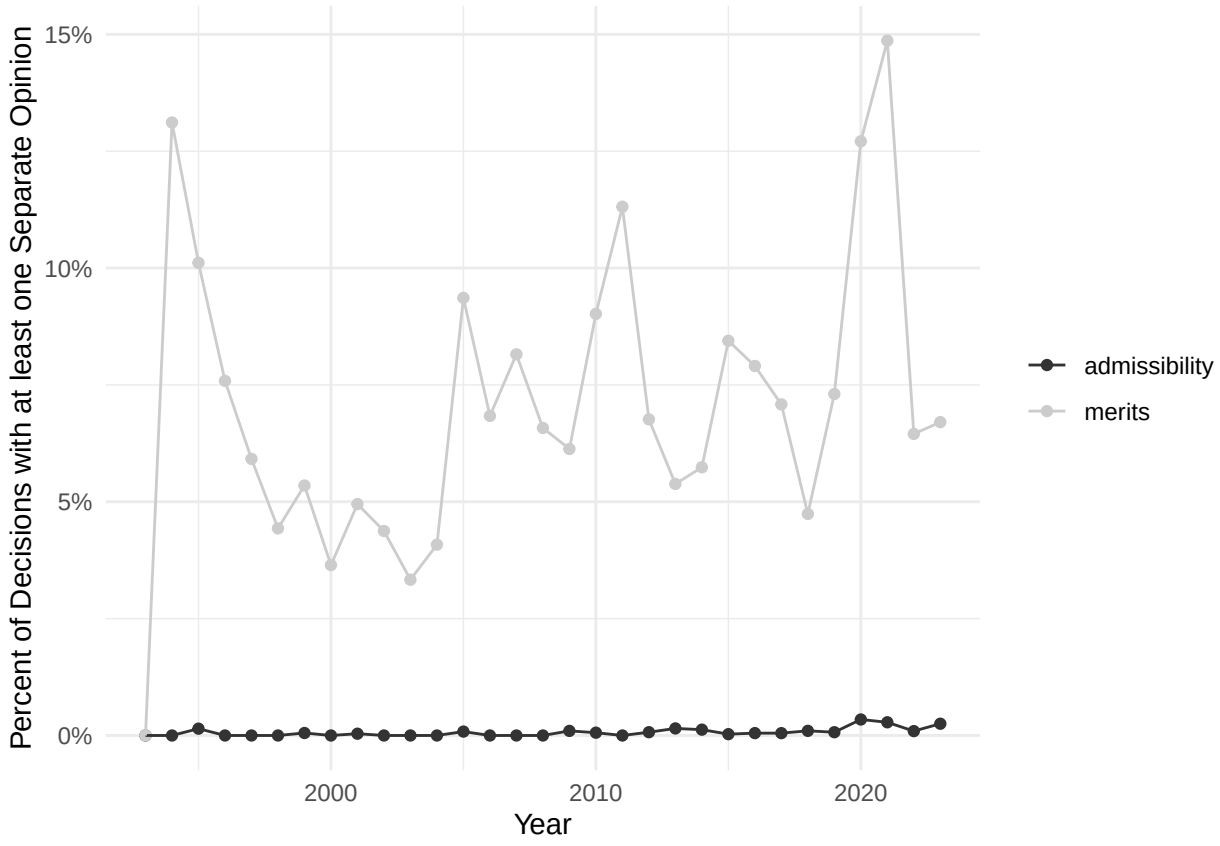

Figure 1: Percentage of Decisions with at least one Separate Opinion

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 4621 decisions of the CCC. Table @ref(tab:overalltable). reveals that 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	**Grounds**	**Count**	**%**	**% with at least One Separate Opinion**
Chamber	merits	3862	81.2%	4.3%
Plenum	admissibility	456	9.6%	11.2%
Plenum	merits	436	9.2%	39.4%

5.2 Operationalization

We now discuss how we operationalized the variables included in our hypotheses. We start with the dependent variables, then we move on to the explanatory variables and finish with control variables.

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.[6] 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 (0) in any given case .

We do not distinguish between a concurrence and a full 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

[6]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.

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 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

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 probability of a separate opinion is higher than in the cases with lower potential for disagreement. More specifically, based on our theory we expect the potential for disagreement to be captured by two characteristics of any given case: (1) its legal complexity and (2) its controversy or in terms of Epstein and Segal (2000) issue salience.

Complexity As Corley, Steigerwalt, and Ward (2013) argue and empirically measure, complexity of a case leads to less certainty and more ambiguity for the justices, which leads to a higher probability 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. What's more, we are able to distinguish between legal issues at the constitutional and ordinary level.

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	—

Note. Correlation was calculated using the Spearman Correlation Coefficient.

The first two variables 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 constitutional 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, in our final model we exclude the number of references variable.

Controversy/Issue salience In a similar vein, certain typically value-laden issues may generate more disagreement even if they raise only one or few legal questions. Epstein and Segal (2000) distinguish between two types of issue salience. Retrospective issue salience is how a particular issue is viewed in hindsight, regardless of whether the actors at the time regarded it so. Contemporaneous salience than captures the stance of the relevant actors, the CCC justices in our cases, on the issue. While we are interested in the latter, it is not obvious as to how exactly can such an information be captured. Epstein and Segal (2000) reject all the typically employed proxies for issue salience such as the number of articles in law review that a case generated or the number of citations a case generated. Instead, they propose a novel unbiased transparent measure of issue salience: whether a SCOTUS decision made it to the front-page of the New York Times newspaper. Unfortunately, practically all of the measures are hard to transfer to a non-US context. We cannot exactly pinpoint a similar newspaper as New York Times in Czechia. Therefore, we need to rely on another measure

of issue salience/case controversy.

In her thesis, Wittig (2016) selected a number of subject matters she deemed as particularly controversial. In the CCC context, there are a number of issue that have been deemed as controversial by the Czech legal scholarship. Typically, the restitution cases or cases concerning fundamental human rights have been coined as rather controversial. The CCC dataset contains a table *subject_matter*, which contains the subject matter of any given case (a discrimination case, a separation of powers case and alike) and information on the area of constitutional law that the case pertains (the right to fair trial, the right of freedom of speech).

Following Wittig's method, we coded the topics as controversial when they concern any of the following subject matters: 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.

Norm-identification Secondly, our theory generated a second expectation: a relationship between adherence to the norm of consensus and the likelihood of a separate opinion. The adherence to the norm of consensus depends on self-identification and on self-perception of the judges: "being part of the system of the judiciary influences identification with the organization's goals and it shapes considerably the judges' perception of how to behave." (Wittig 2016, 100). Theoretically, we expect the adherence to the norm of consensus to depend on one's career choices. 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, from politics, or from anywhere outside the judiciary (Wittig 2016, 84–87.).

Wittig confirms the theoretical intuition empirically as well but she 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. Unfortunately, such a measure does not fit the CCC context. As the table

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

@ref(fig:age-distribution), 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. Given that the retirement age of judges 65 years of age, we expect majority of the CCC justices to simply retire after their terms.

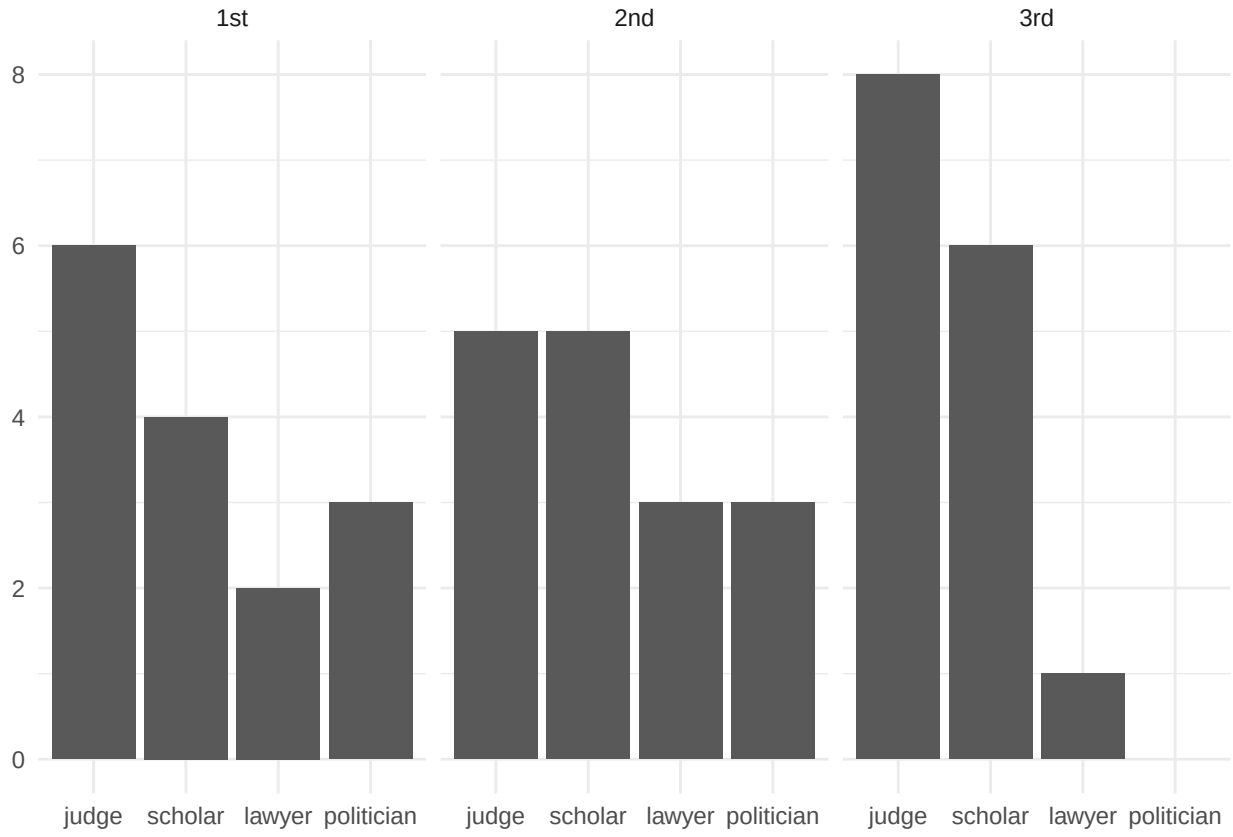

Figure 3: The distribution of professions of the CCC justices across its 3 terms.

Therefore, instead of operationalizing the norm-identification as the profession after their term, we operationalize it as the last profession before they entered the CCC. Viewed this way, Garoupa, Salamero-Teixidó, and Segura (2022) have found evidence that the individual decision to attach a separate opinion of the judges on the Spanish Council of State depends on the justice's professional background. The division does not cut across as we would theoretically expect: only former politicians seem to be less likely to attach a separate opinion, while former judges and lawyers seem to be more likely to attach a separate opinion.

Quite handily, the CCC dataset contains such an information on the last profession before the CCC justices took up their office. In the dataset, the variable *judge_profession* contains the

information on the justices' previous career choices and can take up the values of judge, scholar, politician, or lawyer. The table @ref(fig:profession-distribution) reveals that the distribution of the professions has changed across time. For our purposes, we flatten the original variable into 2 levels. The variable *profession* is coded either as "within" if the justice previously served as a judge or "outside" if they came from the other three professions.

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 likely at the beginning of their terms, as the collegiality costs are higher, and to dissent more likely 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 at the date of the decision. That allows us to account both for the collegiality costs hypothesis as well as the difference between professions hypothesis.

Workload Similarly to the study of Brekke, Naurin, et al. (2023) on workload at the CJEU, 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. The mean number of pending cases of any justice as a judge rapporteur is 107.5295153, with quite a large standard deviation of 54.3803111. The highest number of pending cases in the dataset is 306 in the case of the justice Radovan Suchánek, whose work ethic has already become a topic of scholarly discussion (Chmel 2021).

Table 3: Summary statistics for the workload variable

	Mean	SD	P0	P25	P50	P75	P100
workload	108	54	0	63	103	145	306

One looming issue arises that needs to be addressed and may introduce bias. Not every unfinished pending case is the same. Different judges may cope with the increasing workload differently. Czech scholars have argued that deciding cases on admissibility, which are typically shorter and require a rather concise argumentation, may be such a coping mechanism of overburdened judges: it allows them to expedite decisions faster and with less effort. Thus, the same number of unfinished pending cases of a judge that chooses the strategy of offloading their workload burden into decisions on admissibility may not carry the same workload as with a judge that opts for decisions on merits more often. As a solution, we multiply the workload by a ratio of unfinished cases on merits to admissibility.

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.

Table 4: Descriptive statistics for the formation clusters

Units	Mean Observations per Unit
197	12

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 include fixed effects on. In their study of effect of french language on the performance of the judges at the CJEU, Cheruvu (2019) used fixed effects 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. R. D. Kelemen (2013); Larsson and Naurin (2016)). Including chamber fixed-effects in my models addresses both heterogeneity in the collegial decision-making process of different chambers of judges and implicitly controls for the number of judges hearing a case." Clark, Engst, and Staton (2018) in their paper studied the effect of leisure on judicial performance.[7]. They included the the author fixed effects in their model.[8] 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.

Because in our study, we are interested in the between variance of individual judges as well as the subject matters, it does not make sense to include fixed effects of either cluster. In contrast to that, we are not interested in the so-called panel effects, especially the difference between the 15-member plenum session and the 3-member panels could produce bias. The more controversial cases or more legally complex cases are typically assigned to the plenum and the occurrence of separate opinions is higher in the plenary decisions. Moreover, the behavior of the 3-member panels varies as well. It thus makes the most sense to include panel fixed effects as that would allow us to control for a potentially potent source of bias. In our model, the variable *formation* captures the exact composition of the 3-member panels, whose composition is relative unstable especially after the introduction of system of rotations of justices in 2016, and the information whether the case was decided by the plenum, whose composition is relatively stable within the two terms.

Moreover, our data includes two terms of the CCC. Its second decade roughly between 2003 and 2013 and its second decade between 2014 and 2023. Rather than including year fixed effects, we opt for the term fixed effects. If the majority of judges sitting in a panel came from the first term, the variable *term* is then coded as "1st", and if the majority of justices sitting in a panel came from the second term, the variable takes up the value "2st".

5.4 Results

The results reveal quite an interesting trend at the CCC. We tested the model under more specifications. The full model presented the best fit. However, while excluding the disagreement potential

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

variables produced a significant drop in AIC, excluding the norm-identification did not. Therefore, the norm-identification variables do not seem to carry too much explanatory power regarding the dissenting behavior of CCC justices.

Moving on to the interpretation of the results, we find a clear support for Hypothesis X: all the disagreement potential variables are positively and significantly correlated with the probability of a judge attaching a separate opinion. No matter the model specification, we always found a clear statistical, substantive and positive relationship between the probability of a judge attaching a separate opinion and the number of constitutional or ordinary acts concerned.

The same applies to the controversial value-laden topics. Because we are aware of the potential issue with "arbitrarily" selecting a couple of potential subject matters, we decided to test the robustness of our *controversial* variable. To do so, we conducted a placebo test. We sampled 10 placebo samples of different subject matters (n = 13) and fitted the same final full mixed-effects model with the *controversial* variable being replaced by the placebo. After rerunning the placebo test multiple times with various samples of different seeds, we found that only sometimes would at most one placebo sample out of the 10 be statistically significant, the remaining 9 or 10 samples were not. While such a conclusion may not come as a complete surprise, as it is perfectly aligned with theoretical expectations, we provide a firm evidence for it.

Table 6: The result of 10 models fitted with different placebo sample from the subject matter variable.

	Estimate	SE	p.value
placebo11	0.13	0.21	0.55
placebo21	0.13	0.35	0.72
placebo31	0.10	0.23	0.67
placebo41	0.64	0.19	0.00
placebo51	0.16	0.24	0.51
placebo61	0.37	0.19	0.06
placebo71	-0.13	0.28	0.63
placebo81	-0.04	0.21	0.86

	Estimate	SE	p.value
placebo91	-0.35	0.26	0.19
placebo101	-0.15	0.23	0.52

Our results do not support the Hypothesis X. Interestingly, unlike at the GFCC, we do not find evidence for the norm-consensus operating according to our theoretical expectations. Firstly, adding the interaction term between the professional background and the time in office does not improve the model fit. It does not carry much explanatory power as an ANOVA test fails to reject the null hypothesis of no difference. Secondly, neither the separate variables of norm-identification nor the interaction term are near statistical significance. That does not however lead to us rejecting the identification-disagreement as a theoretical model. We believe it to be a clear theoretical model that can guide further empirical inquiries. It may just be the case that the proxy of the justices' profession may not be wholly accurate or that even if it was there may simply be currently no norm of consensus operating at the CCC.

Our results also support for Hypothesis X. Higher workload of a judge decreases their probability of attaching a separate opinion. It thus appears that neither the claims of Epstein, Landes, and Posner (2011) are not unwarranted and may carry over to other contexts. The results thus reveal that judges of the CCC give way to strategical considerations regarding their leisure. If they're overburdened with work, they reduce the load elsewhere, namely in the additional burden of writing separate opinions.

Lastly, we do not find evidence for the so-called freshman's effect. The importance CCC justices attach to collegiality costs of a separate opinion seem to remain consistent across time as the time in office of a justice does not carry explanatory power in our model.

Table 5: Results from the Logit Model

	Full Model	Disagreement	Norm
(Intercept)	−4.115***	−4.233***	−4.678***
	(0.235)	(0.251)	(0.255)
n_concerned_acts	0.101***	0.090***	
	(0.025)	(0.026)	
n_concerned_constitutional_acts	0.275***	0.177***	
	(0.028)	(0.031)	
groundsadmissibility	−0.804***	−0.654***	−1.382***
	(0.111)	(0.113)	(0.099)
judge_professionwithin	−0.069		−0.102
	(0.076)		(0.077)
time_in_office	0.041		0.143**
	(0.050)		(0.048)
controversial0	−0.494***	−0.474***	
	(0.115)	(0.117)	
workload	−0.131***	−0.089*	
	(0.039)	(0.039)	
judge_professionwithin × time_in_office	−0.104		−0.133+
	(0.076)		(0.074)
n_citations		0.244***	
		(0.026)	
SD (Intercept formation)	0.974	1.010	1.070
SD (Intercept panel_term)		0.104	0.172
Num.Obs.	21 582	21 582	21 582
R2 Marg.	0.071	0.074	0.069
R2 Cond.	0.279	0.295	0.314
AIC	6428.1	6326.6	6583.9
BIC	6507.9	6398.4	6639.8
ICC	0.2	0.2	0.3
RMSE	0.19	0.19	0.19

6 Conclusions

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(APPENDIX) Appendix

7 Appendix