## Summary of concept written in prose. Useful context and has initial examples of hypotheses which could be tested. The current multi-test battery is mostly sufficient here, so the goal should be more complex/higher dimensional hypotheses.

LIWC-22 computes sentiment data based on a number of pre-set dictionaries. These values are computed primarily by counting the proportion of certain words within a text. Psycholinguistics provides a way to understand the law as a product of Justices’ underlying motivations and preferences that shape their perception of cases and policy (Goldstein, 1968). LIWC has been utilized to test a number of specific hypotheses pertaining to Judicial motivations, as well as a predictive tool. Psychoanalytical models utilizing LIWC data have predicted Supreme Court decisions with higher accuracy than conventional models (Gandall et al., 2023). As well as analyzing the motivations and considerations behind dissenting opinions (Corley & Ward, 2020).

The LIWC core dictionaries are used with default entries, with minor corrections made for words that are overemphasized in legal texts. Each score is computed on an ascending scale from 0-100, with 50 indicating a score in the middle of the range. For complex sentiment scores measuring less easily classifiable patterns, it is recommended to use compound variables with equal weightings (Ballingrud, 2022). Following the lead of (Owens & Wedeking, 2012) cognitive complexity will be measured by aggregating scores for causation, discrepancy, tentative, certainty, inclusiveness, exclusiveness, negations, and words of 6+ letters. These scores help measure words indicative of logical and specific thought processes. Then, a related measure of cognitive inconsistency is computed from the standard deviation of cognitive complexity aggregated by Justice. This particular measure has been found to correlate with Justices with high ideological drift, and indicates that a Justice displays reorganizations of their cognitive processes (Owens & Wedeking, 2012).

Core dictionary modules measure Authenticity, Clout, and Analytic. Analytic tone is a similar measure to cognitive complexity; however, the core module allows for more complex work classification logic for core dictionaries. Analytic tone is thus computed as a dummy variable for cognitive complexity. Authenticity measures the degree to which Justices’ writing conveys genuineness and individual thought. While Authenticity has proven useful in most text contexts, it has so far seen limited application to specifically Supreme Court Justices. Clout is a measure of status, leadership, and confidence reflected by an author. Past research has linked clout to negatively correlate with the Courts’ vulnerability to executive actors (Ballingrud, 2022). Clarity is lastly computed to measure readability and the complexity of words, but not thought processes.

Of the 525 samples about ~10% of main opinions and ~20% of secondary opinions failed to extract. Additionally, about 15% of secondary opinions were skipped for being under 3 pages in length. Opinions failed to extract due to automated extraction functions failing to find highly atypical start and end patterns. These opinions were not added manually both so that the process could stay fully automated and computer-validated and because opinions tended to be unique in writing characteristics that could affect LIWC measures. A total of ~1,415 opinions were successfully extracted, cleaned, and run through LIWC sentiment analysis, of which 455 were main opinions.

## **Test hypotheses:**

Based on initial data and case studies a number of hypotheses have been formulated to test decouple potential motivations and reasons for the filing of pluralities. H1 tests the assumption that genuine disagreement, at least on prominent issues, stems from genuine disagreement on issues. H2 tests the secondary that the failure of Justices to converge on the median is based on individual considerations of utility, rather than multi-dimensional policy preferences or collective preferences.

**H1: Plurality precedent on salient and contentious topics is primarily the result of genuine disagreemen**

This hypothesis would expect plurality preference to bear more resemblance to the majority opinion than non-majority opinions. Additionally, salient cases should see very little effect of strategy consideration variable. The following postulates should help validate:

1. Authenticity should be higher than majority opinions, since lone opinions would be expected to express more individuality. Whereas majorities are typically a consensus of the coalition, and tend to express most closely the preferences of the median Justice in the majority coalition (Carrubba et al., 2012).

2. Strategic considerations may factor potential backlash from state actors, however public opinion should not be relevant in non-salient cases. And in salient cases Justices attitudes should be a greater predictor of voting than strategic considerations. Complexity and analytic should not have significant relationships to case saliency when controlled against non-plurality opinions.

3. Authenticity should be higher in salient cases versus cases involving federal appellants where attitudinal differences will be less apparent.

**H2: Dissensus is shaped by motivation for utility.**

This secondary hypothesis asserts that the actual reason majority coalitions fail to form is predominantly the result of Justice’s individual utility maximization. Specifically, the desire to control opinion content creates a non-standard preference dimension that is unrelated to case complexity.

1. Cognitive inconsistency, but not complexity, correlates to plurality opinions. Complexity should only increase if the case is more complicated, or the plurality precedent is being obfuscated. Cognitive inconsistency has already been shown to be a correlate of drift (Owens & Wedeking, 2012).

2. Analytic and cognitive complexity values should not correlate to authenticity; this is the inverse from what would be expected under the alternative hypothesis that dissensus is motivated by complex policy preferences. Though it should correlate to case complexity.

3. Heterogenous voting coalitions should negatively correlate with authenticity and positively correlate with cognitive inconsistency for plurality opinions. Heterogenous coalitions should optimize potential utility maximization and provide the strongest incentives for swing voters. This would also follow from existing findings that Justices are more inclined to file limiting concurrences when ideologically distant from majority author or extreme relative to the median justice (Spriggs & Stras, 2010).

Plurality opinions should average more citations than majority opinions and have higher analytic than majority opinions. Dissents and concurrences feature heavy citation use and legal reasoning to increase bargaining value and influence precedent treatment. If utility optimization leads Justices to file pluralities, they should adhere to the same logic (Bennet et al., 2020; Corley & Ward, 2020).