DOES DEFERENCE PROMOTE PRINCIPLED DYNAMIC INTERPRETATIONS OF STATUTES?*

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Abstract

Statutes permeate society. Administrators administer and interpret statutes. Litigants can challenge, in the courts, administrators' actions. In deciding the challenge, courts must interpret the statute. In doing so, courts must decide how much weight to give the administrator's interpretation. Doctrines of deference govern the amount of weight that courts should assign to agencies' interpretations. The literature suggests that deference in general, and high-level deference in specific, may induce courts to interpret statutes in a way that is 'dynamic' or 'liberal' and which departs from the legislative purpose. The literature has not empirically tested this. Thus, this paper tests the theory that deference induces courts to issue dynamic, non-purposive judgments. However, the results do not indicate that deference induces dynamic, non-purposive interpretations. Rather, deference makes courts significantly more likely to cohere to the legislative purpose and to issue dynamic, purposive interpretations. This indicates that deference may promote a principled purposive approach to the interpretation of statutes.

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1 INTRODUCTION

Legislation permeates society and governs persons' actions. Administrators apply this legislation, which involves interpretation. People can challenge, in the courts, administrators' actions, but any challenge requires courts to interpret the legislation. In doing so, courts must assign some weight to the administrator's interpretation. This can range from zero weight to complete acceptance. The myriad deference doctrines indicate the weight that courts should give administrators' interpretations. Some literature argues that deference induces courts to make unprincipled 'liberal' or 'dynamic' interpretations that depart from the legislative purpose.[1] However, the literature has not empirically assessed this claim. Thus, this paper addresses the gap in the literature. It finds that deference in general, and more specifically, deference that assigns administrators' interpretations a low-weight, actually encourages courts to consider legislative intent, and to make dynamic interpretations based on the legislative intent.

Deference doctrines guide the weight that courts should give to administrators' interpretations of statutes. There are multiple types of judicial deference. Eskridge and Baer, 2008 argue that there is a continuum of deference-levels; however, the continuum collapses into three main categories (see Eskridge and Raso, 2009); low-level, medium-level, and high-level deference. Low-level deference holds that courts have primary responsibility for interpreting legislation. The agency's interpretation is only one factor that should influence the interpretation (Dame, 2002; Hickman and Krueger, 2007).

Medium-level comes in two varieties. First, deference under *Chevron USA Inc v. Natural Resources Defence Council Inc* (467 U.S. 837 [1984]) involves two steps two steps: (a) the court must decide if the statute's words are vague; and (b) if so, then the court must follow the agency's interpretation if it is 'reasonable' (for a detailed discussion see Andersen, 2006; Dame, 2002; Fitts, 1990; Kerr, 1998). Second, *Beth Israel Hosp. v. Nat'l Labor Relations Bd.* (437 U.S. 483 [1978]) holds that the court should follow the agency's interpretation unless the statute clearly addresses the point and the agency's interpretation is 'reasonable' or consistent with the approach

[1] See generally: (Sunstein, 1989). See on Chevron deference: (Humphèry, 2009a). See also for a discussion on the interaction between deference and stare decisis (Dame, 2002; Pierce, 1997)

(Eskridge and Baer, 2008). The key commonality is that if the agency's interpretation is reasonable, the court will accept it.

High-level deference involves two key traits (a) a presumptive acceptance of the agency's interpretation; and (b) a strong reluctance to disagree with the agency's interpretation. Here, *Bowles v. Seminole Rock & Sand Co.* (325 U.S. 410 [1945]) holds that if the agency interprets its own regulations, then the court should accept its interpretation unless it is clearly wrong (Eskridge and Baer, 2008; Eskridge and Raso, 2009).

Deference may induce 'dynamic' interpretations that deviate from the legislative intent. The legal-theoretical literature argues that deference induces a dynamic interpretation of statutes (Humphèry, 2009a; Rubin, 2002). A dynamic interpretation is one that can change over time to fit the contemporary social circumstances (for a detailed discussion see: Eskridge, 1987; 1994). The argument bases itself on two key premises. First, administrators are more likely to adopt a dynamic interpretation than courts are. And, second, deference requires, or strongly encourages, courts to adopt these interpretations.

The literature suggests that deference in general, and high-level deference in specific, may encourage courts to issue interpretations that deviate from the legislative purpose ('non-purposive' interpretations). A purposive interpretation is one that holds that an interpretation is valid only if it promotes the legislature's purpose for the statute (following Frickey, 2006). In its commonly accepted form, the court looks at objective evidence of the legislature's purpose, not at what the legislature may have subjectively intended (Frankfurter, 1947; McCallum, 2003; Spigelman, 2005). The literature does not clearly indicate if deference will support or undermine purposive interpretations.

The first type is law that restricts administrators' power. Some regulatory legislation arose precisely to limit the power of agencies. But deference gives agencies more power by allowing agencies to interpret statutes. Thus, deference undermines the legislative intent (Sunstein, 1989). This objection is especially valid vis-à-vis the interpretation of 'jurisdictional fact' provisions. These provisions stipulate the pre-conditions for administrators to exercise power. Thus, if administrators can interpret 'jurisdictional fact' provisions, then they can gain excessive power (*Corporation of the City of Enfield v. Development Assessment Commission* (169 A.L.R. 400 (Gaudron J) [2000]). However, the case law indicates that these restrictive statutes or clauses are distinguishable

from statutes or clauses that grant agencies power (Aronson et al., 2004). Thus, this objection cannot apply to statutes that grant agencies power.

The second type is law that grants administrators power. However, here, the literature argues that administrators may implement their own policy goals rather than those of the original legislature. A body's social context necessarily influences how it interprets legislation (Fish, 1989). But, social contexts change over time. Thus, the administrator's social context may differ from the legislature's historical social context. But the legislature's purpose derived from its historical social context. Thus, administrators' interpretations may deviate from the legislature's original purposes (Eskridge, 2002; Mashaw, 2002; Pierce, 1997).

The key objection to this claim is twofold. First, deference ordinarily applies where the administrator interprets 'vague' words in a statute (following *Chevron*). And, the literature argues that the legislature often uses 'vague' words precisely because it wants the meaning of those words to adapt to the current social context (Easterbrook, 1988; Humphèry, 2009b). Thus, allowing administrators to base their interpretations on the present context supports the legislature's purposes. Second, it is arguable that the legislature knows the agency will base the interpretation on its current context. And thus, if it gives agencies power, then it implicitly accepts that agencies will base their interpretations on the current context (see Humphèry, 2009b). Therefore, the agency's interpretation upholds the legislature's intent.

The empirical literature has not directly tested if deference promotes dynamism. The literature has examined the extent to which courts follow various forms of deference (Eskridge and Baer, 2008; Eskridge and Raso, 2009; Hickman and Krueger, 2007; Kerr, 1998; Schuck and Elliot, 1990; Stephenson, 2004). The literature indicates that courts are likely to defer to administrators' interpretations: Eskridge and Baer, 2008 find that 68.8% of Supreme Court decisions are in favour of the administrator's interpretation (Eskridge and Baer, 2008). Hickman and Krueger (2007) indicate that of the courts that apply *Skidmore*, 74.5% are likely to apply the more deferential interpretation of *Skidmore*. And, 59.5% of courts applying the more deferential interpretation accepted the administrator's interpretation. However, the empirical literature has not directly tested if deference induces liberal interpretations, or if it induces interpretations contrary to the legislative purpose.

This background induces the following testable hypothesis, called the '***purposive-dynamic***' hypothesis: if the court defers to the administrator's interpretation then it is more likely to issue a purposive judgment and a dynamic judgment that is purposive (a purposive-dynamic judgment), but is less likely to issue a dynamic interpretation that is non-purposive (a non-purposive-dynamic judgment). This hypothesis yields the following predictions: First, deferential-judgments are significantly more likely to be purposive or purposive-dynamic, but are less likely to be non-purposive-dynamic. Second, this holds after controlling for other factors that might affect the court's decision to issue a dynamic judgment. Third, deference actively causes courts to issue more purposive and purposive-dynamic judgments, but to issue fewer non-purposive-dynamic judgments.

The results support the purposive-dynamic hypothesis. The results indicate that deference in general, and low-level deference in especial, promotes purposive legislative interpretations, and dynamic interpretations that are purposive. There is no evidence that deference encourages dynamic interpretations that are non-purposive. Thus, the results indicate that deference may encourage courts to adopt principled dynamic interpretations.

The balance of this paper proceeds as follows. Section 2 establishes that low-to-medium-level deference is optimal. Section 3 explains the data and set up. Section 4 examines if deferential judgments are more likely to be purposive and purposive-dynamic, and less likely to be non-purposive-dynamic. Section 5 ensures that the results hold after controlling for other interpretative factors that influence the court's decision to issue a purposive or a dynamic judgment. Section 6 tests if deference actively 'causes' purposive/purposive-dynamic judgments (rather than being merely correlated with them). Section 7 ensures that the results are robust, and Section 8 concludes.

2 WHY MIGHT DEFERENCE THEORETICALLY PROMOTE PRINCIPLED INTERPRETATIONS?

The threshold issue is a theoretical predication about whether deference, or a specific type of deference, might promote principled interpretations. The theoretical model bases itself on contraction mapping theory. For clarity, this section first defines the interpretative situation (in Section 2.1), then applies this to examine the optimal

level of deference (in Section 2.2). It concludes that a low-to-medium deference, but not zero, or high-level of deference is desirable.

2.1 THE INTERPRETATIVE SITUATION

First, to set ideas, consider the following situation. First, define the statute: There is a statute. Define $X = \{x_k\}$ as the set of all interpretations. There is a true interpretation of the statute, x .The distance metric d defines the in 'accuracy' between any two interpretations x_k and x_{k+1}. Thus, the 'accuracy difference' between x_k and x_{k+1} is $d(x_k, x_{k+1})$.

The court and the agency interpret the statute in a continuous process. To start, the agency interprets the statute. Then the court re-interprets the statute after considering the agency's interpretation. Then the agency re-considers its interpretation based upon the court's interpretation. The court can then consider the agency's re-consideration, and so on. Assume that the court and the agency are similarly allowed to re-consider prior interpretations. Conversely, let $\alpha \in [0,1]$ be the extent to which prior judgments bind the court and the agency. Assume that α is the same for both the court and the agency. This interpretative process a sequence of interpretations $x_1, x_2, \dots, x_n, \dots$. This generates the definition:

Definition 1 (Interpretative Metric Space): There is a metric space (X, d) where $X = \{x_k\}$ is the set of interpretations, and $d(x_k, x_{k+1})$ is the 'accuracy difference' between interpretations x_k and x_{k+1}.

Second, consider the interpretative process. After many repeated interpretations, the interpretations become similar. Mathematically, this means, that after some number of interpretations, N, the distance between interpretations x_k and x_{k+1} can become arbitrarily small; that is, for $k > N$, $d(x_k, x_{k+1}) < \epsilon$, where ϵ is some arbitrarily small measure of distance. This generates the assumption:

Assumption 1 (Cauchy Sequence of Interpretations): The sequence of interpretations is a Cauchy seqeucne. That is, for any $\epsilon > 0$ there exists an integer N such that $d(x_k, x_{k+1}) < \epsilon$ for $k > N$.

Third, consider the mechanism of interpretation. Assume that the court and the agency are rational actors who seek the 'true' interpretation. Thus, when considering prior interpretations, courts and administrators apply the monotonic function $f: X \to X$ such that $x_{k+1} = f(x_k)$. And, because (a) the court and agency seek the true interpretation, and (b) over time the interpretations start to become similar, applying the distance between $f(x_k)$ and $f(x_{k+1})$ is less than the distance between the original interpretations x_k and x_{k+1}. That is, $d\big(f(x_k), f(x_{k+1})\big) \leq \alpha d(x_k\ x_{k+1})$ for some $\alpha \in [0,1]$. Thus,

Assumption 2 (Contraction Mapping of Interpretations): The interpretative process $f: X \to X$ is a contraction mapping such that $d\big(f(x_k), f(x_{k+1})\big) \leq \alpha d(x_k\ x_{k+1})$ for interpretations $x_k, x_{k+1} \in X$ and $\alpha \in [0,1]$.

Fourth, consider the interpretation of α. The term $\alpha \in (0,1]$ represents the extent to which f reduces the distance between interpretations. Intuitively, $\alpha < 1$ if and only if (a) the interpreter seeks the true interpretation, and (b) the interpreter is able to change the prior interpretation. However, $\alpha = 1$ if the interpreter accepts the prior interpretation. Now, recall that for deference, α represents the extent to which courts can re-consider prior interpretations. Thus, α is low if the interpreter can freely amend prior interpretations (i.e. Stare Decisis is unimportant), α is high if there are restrictions on amending prior interpretations, and $\alpha = 1$ if the interpreter cannot consider prior interpretations. This induces the following assumption.

Assumption 3 (Deference and the meaning of α): The term α represents the extent to which the interpreter can consider prior interpretations. The term α increases with the level of deference such that low-level deference has a low α whereas high-level deference has a high α. A no-deference approach has $\alpha = 0$, representing no relation between interpretations.

This induces the issue of the optimal level of α, or deference, to induce principled interpretations.

2.2 OPTIMAL LEVEL OF DEFERENCE

This section considers the theoretically optimal level of deference. The term α represents the level of deference. Thus, Proposition 1, Proposition 2, and Proposition 3 consider the impact of having $\alpha \in (0,1)$, $\alpha = 0$, and $\alpha = 1$, respectively.

Proposition 1 (Tendency toward the true interpretation for $\alpha \in (0,1)$): Assume that $\alpha \in (0,1)$. Then, repeated interaction between the agency and the court cause the interpretation to tend toward the true interpretation x.

Proof of Proposition 1: Let X be the set of interpretations, and let d be a metric that gives the distance between interpretations. Let $x_0 \in X$ be an arbitrary starting interpretation. Let f be an interpretation function such that $x_1 = f(x_0)$, $x_2 = f(x_1) = f\big(f(x_1)\big), \dots, x_n = f(x_{n-1}) = f^n(x_0)$, where f^n represents n repeated applications of the interpretation function f. Now define the arbitrary integers l, k, and, without loss of generality, assume that $l > k$. Thus,

$$\begin{aligned} d(x_k x_l) &= d\big(f^k(x_0), f^l(x_0)\big) \\ &= d\big(f^k(x_0) f^{l-k}(x_0)\big) \\ &\leq \alpha^k d(x_0, x_{l-k}). \end{aligned}$$

Now, repeated applications of the triangle inequality yield:

$$\begin{aligned} d(x_k x_l) &\leq \alpha^k [d(x_0, x_1) + d(x_1, x_2) + \dots + d(x_{l-k-1}, x_{l-k})] \\ &\leq \alpha^k [d(x_0, x_1) + \alpha d(x_0, x_1) + \alpha^2 d(x_0, x_1) + \dots + \alpha^{l-k-1} d(x_0, x_1)] \\ &= \alpha^k d(x_0, x_1)[\alpha + \alpha^2 + \dots + \alpha^{l-k-1}]. \end{aligned}$$

This is a geometric progression; and thus,

$$d(x_k, x_l) \leq \frac{\alpha^k}{1-\alpha} d(x_0, x_1).$$

But, $\alpha \in (0,1)$. Thus,

$$\lim_{k \to \infty} \frac{\alpha^k}{1-\alpha} d(x_0, x_1) \to 0.$$

Thus,

$$d(x_k, x_l) \to 0.$$

This means that the distance between any successive interpretations of law, $d(x_k, x_l)$ approaches 0 over time. But, also recall the assumption that judges and agencies seek the true interpretation. And, if the prior interpretation is incorrect, then the subsequent interpreter will make it incrementally more correct. Thus, the distance between x_k and x_l can approach 0 in the limit only if there is no need to amend either x_k or x_l. That is, x_k and x_l must have already approached the true interpretation x. Therefore, repeated applications of the interpretative process f cause the interpretation to tend toward the statute's true meaning.

Next, consider the situation when $\alpha = 0$. This is a sub-optimal situation that cannot induce the true interpretation of the statute. Proposition 2 summarizes the situation.

Proposition 2 (Sub-optimality of $\alpha = 0$): If $\alpha = 0$, then the true interpretation arises only if the initial interpretation, x_0, is the true interpretation, x.

Proof of Proposition 2: Let $\alpha = 0$. Let $k \geq 0$ be an arbitrary integer. Now, recall that $d\big(f(x_k), f(x_{k+1})\big) \leq \alpha d(x_k\ x_{k+1})$. Thus, $d\big(f(x_k), f(x_{k+1})\big) \leq 0$. But, by definition of a metric, the distance $d\big(f(x_k), f(x_{k+1})\big)$ must be non-negative. Thus, $d\big(f(x_k), f(x_{k+1})\big) = 0$. This occurs only if $f(x_k) = f(x_{k+1})$. But f is monotonic. Thus, $x_k = x_{k+1}$. But, from the Proof of Proposition 4, this can occur only if $x_k = x_{k+1} = x$, where x is the true interpretation. Now, note that this must hold for all k. Thus, if $\alpha = 0$, then the court/agency reaches the true interpretation only if $x_0 = x$. That is, the true interpretation arises only if the initial interpretation happens to be the true interpretation. But, this will not always be the case. Thus, $\alpha = 0$ will not necessarily induce the true interpretation. is sub-optimal.

Consider now the situation where $\alpha = 1$. Here, prior interpretations perfectly bind. Thus, judges and agencies cannot re-consider prior interpretations. Here, the interpretation will not tend toward the true value.

Proposition 3 (non-tendency to the true value for $\alpha = 1$): If $\alpha = 1$ the courts and agencies cannot re-consider prior interpretations. Thus, if $\alpha = 1$ the interpretation will not tend toward the true value.

Proof of Proposition 3: As in the proof of Proposition 1: Let X be the set of interpretations, and let d be a metric that gives the distance between interpretations. Let $x_0 \in X$ be an arbitrary starting interpretation. Let f be an interpretation function such that $x_1 = f(x_0),\ x_2 = f(x_1) = f\big(f(x_1)\big), \ldots, x_n = f(x_{n-1}) = f^n(x_0),$ where f^n represents n repeated applications of the interpretation function f. But here, since $\alpha = 1$, $x_{k+1} = f(x_k) = x_k$; that is, $x_{k+1} = x\_k$. Thus,

$$d(x_k x_l) = d\big(f^k(x_0), f^l(x_0)\big)$$
$$= d(x_0, x_{k+l})$$

But, $d(x_0, x_{k+l})$ need not approach 0. And recall, from the proof of Proposition 3, that the interpretation tends toward the true interpretation x only if $d(x_k, x_l)$ approaches 0. Thus, if $\alpha = 1$, then the interpretation does not tend toward the true interpretation.

To summarize, this analysis suggests that a low-to-medium level of deference is optimal and will enable the court and the agency to reach the true interpretation of the statute. Thus, the issue is whether the empirical evidence supports this prediction.

3 DATA AND SET UP

This paper examines Supreme Court decisions from between 1983 and 2005. The paper uses the sample of Supreme Court decisions that featured in Eskridge and Baer (2008).[2] Eskridge and Baer (2008) hand-collected a sample of 1,014 Supreme Court decisions that analyze administrators' interpretations of statutes. This paper utilizes the data to generate the controls and instruments in Section 4 and Section 5.

[2] This data is available from http://www.georgetownlawjournal.com/extras/96.4/ (for papers using this data see: Eskridge and Baer, 2008; Eskridge and Raso, 2009)

Judgments can adopt several approaches to deference. Judgments may adopt no deference. Alternatively, they may adopt some form of deference. If the court adopts some form of deference, then, they may adopt one of three types: low, medium, or high. Subsequently, the paper defines the following deference variables: **def_any** equals 1 if the court adopted any deference approach and equals 0 otherwise; **def_low** equals 1 if the court adopted low-level deference and equals 0 otherwise; **def_med** equals 1 if the court followed medium-level deference and equals 0 otherwise; **def_high** equals 1 if the court adopted high-level deference and equals 0 otherwise.

A judgment can be either purposive non-purposive. And, a judgment can be dynamic/liberal or non-dynamic/non-liberal. This means that if the judgment is dynamic, then it can be either purposive or non-purposive. Therefore, the paper defines the following variables: **purp** equals 1 if the judgment is purposive and equals 0 otherwise; **purplib** equals 1 if the judgment is both purposive and dynamic/liberal and equals 0 otherwise; **nonpurplib** equals 1 if the judgment is dynamic/liberal but is non-purposive and equals 0 otherwise.

Summary statistics by year are in **Table 1**. This shows that high-level deference is uncommon, especially at the beginning of the sample. Low-level deference is the most common form of deference. This may reflect judges' desire to avoid ceding interpretive control to agencies. Interestingly, only around 1/3 of judgments explicitly refer to legislative purpose in their reasoning. And more liberal judgments are non-purposive (233) than are purposive (197). The summary statistics also show some clustering by year, which justifies the use of clustered standard errors.

The goal is to examine if any element of the deference approaches (**def_any**, **def_low**, **def_med**, or **def_high**) increase the probability that a judgment is purposive (i.e. increase p(**purp**)) and is purposive-liberal (i.e. increase p(**purplib**)), but decrease the probability that a judgment is non-purposive liberal (i.e. decrease p(**nonpurplib**)). Section 3 examines this from a univariate perspective.

4 DOES DEFERENCE CORRELATE WITH PURPOSIVE-LIBERAL INTERPRETATIONS?

Deference promotes dynamic interpretations and the legislative purpose only if it the decision to defer correlates with the decision to make a principled purposive interpretation. This holds only if judgments that defer have (a) significantly greater use of legislative purpose; (b) a significantly greater tendency to make dynamic interpretations that utilize legislative purpose; and (c) are not significantly more likely to make dynamic interpretations that ignore legislative purpose.

The paper assesses the three conditions in two ways. First, the paper examines the mean number of judgments that are (a) purposive; (b) purposive-liberal; and (c) non-purposive-liberal. Second, the paper examines the correlation between the deference decision and the issuance of a purposive, purposive-liberal, or non-purposive-liberal judgment. The paper uses tetrachoric correlations since the variables are binary indicator variables (consistent with Raskin and Terry, 1988). It does this for the four deference variables **def_any**, **def_low**, **def_med**, and **def_high**.

The univariate results confirm the purposive-dynamic hypothesis. The univariate results are in **Table 2**.The univariate results have three important implications. First, the reliance on purpose is significantly higher for judgments that rely on deference in general (viz. **def_all**; significant at 1%); low-level deference (viz. **def_low**; significant at 1%); and for medium-level deference (viz. **def_med**; significant at 5%). Second, judgments that defer in general (viz. **def_all**), use low-level deference (**def_low**) or medium-level deference (**def_med**) are significantly more likely to issue judgments that are both dynamic and purposive. Third, judgments that defer do not make more non-purposive liberal judgments. While there is some evidence that judgments that use high-level deference (**def_high**) are less likely to rely on legislative purpose or to make a purposive-dynamic interpretation, these results are not significant. Overall, the univariate results support the purposive-dynamic hypothesis for deference in general; low-level deference; and medium-level deference.

The correlation results support the purposive-dynamic hypothesis. **Table 3** contains the tetrachoric correlations. The results indicate that deference overall (**def_any**), low-level deference, and medium-level deference correlate significantly with purposive and purposive-liberal judgments (**def_**any at 1% significance; **def_low** and **def_med** at 5% signifiance). High-level deference (**def_high**) supports neither liberal nor purposive-liberal judgments. No deference-type encourages non-purposive dynamic judgments. Overall, these results quadrate with the purposive-dynamic hypothesis.

5 DOES THIS HOLD AFTER CONTROLLING FOR OTHER FACTORS THAT AFFECT THE DECISION TO MAKE A PURPOSIVE JUDGMENT?

Deferential judgments are more likely to be purposive and purposive-liberal. However, it may be the case that a deferential court also adopts interpretative practices that pre-dispose it to issuing a dynamic interpretation. In this case, the correlation between deference and purposive/purposive-liberal judgments is due to spurious correlation. This section finds that spurious correlation does not drive the results. This section ensures that the results are not due to spurious correlation. Section 4.1 explains the methodology and Section 4.2 presents the results.

5.1 METHODOLOGY

The goal is to examine the relation between deference and the judgment-type after controlling for other factors that affect the judgment type. Deference makes a judgment-type more likely only if deference renders that judgment type more likely after controlling for other variables that affect the judgment-type. A natural way to test this is a PROBIT model. The PROBIT model assess the probably of a judgment-type conditional on (a) deference, and (b) other control variables that might affect the judgment-type. Thus, the model has the form:

$$\begin{aligned} \left[p(\mathbf{interp\_type}=1\boldsymbol{\beta}\mathbf{X})\right] &= \Phi(\mathbf{X}\ ) \\ \Phi^{-1}\left[p(\mathbf{interp\_type}=1\,|\,\mathbf{X})\right] &= \mathbf{X}\beta \\ \mathbf{X} &= \mathbf{def\_type} \oplus \mathbf{controls} \end{aligned} \tag{1}$$

Here, the vector **interp_type** is an indicator of the interpretation type; purposive, purposive-liberal; or non-purposive-liberal. The matrix **X** is a matrix of variables that influence the **interp_type**. This matrix is a direct sum of the deference type variable (i.e. **def_any**, **def_low**, **def_med**, or **def_high**), and the control variables (defined below). The vector **β** is a vector of regression coefficients. The term Φ represents the standard normal density function.

The model controls for heteroscedasticity and clustering by year since the judges on the court change from year-to-year and the composition of the court can influence the propensity to issue purposive, liberal, or deference-based judgments (following Eskridge and Baer, 2008). Section 6 ensures that the results are robust to agency-specific and judge-specific effects.

The **X** matrix contains exogenous variables that should theoretically influence the court's decision to make a liberal or dynamic decision. Thus, the model controls for the proportion of judgments in the last judicial term that deferred to agency interpretations (**p.def** $_{t-1}$); invoked legislative purpose (**p.purp** $_{t-1}$); relied on textualism (**p.text** $_{t-1}$); utilized common law doctrines (**p.comlaw** $_{t-1}$); used an canon? based on federalism(**p.fedcan** $_{t-1}$), avoidance (**p.avoidcan** $_{t-1}$), or due process (**p.dpcan** $_{t-1}$), or used another miscellaneous cannon (**p.othercan** $_{t-1}$); relied on the legislative acquiescence doctrine (**p.legaqui** $_{t-1}$); specifically referred to legislative intent (**p.legintent** $_{t-1}$); examined the whole act (**p.wact** $_{t-1}$) or the whole legislative code (**p.wcode** $_{t-1}$) or relied on separation of powers (**p.seppow** $_{t-1}$). Correlation statistics (unreported) indicate potential collinearity between these variables. Thus, Section 6 ensures the results are robust to collinearity by using principal components analysis.

The average level of deference should influence the liberalness of the court's decisions. The literature indicates that agencies' decisions are liberal or dynamic in nature (see Miller, 2000; Shuren, 2001). And, if the court defers to more agency interpretations on average, then it indicates a willingness to adopt liberal interpretations. And thus, it is more likely to adopt a liberal interpretation in this case. Therefore, the models include the variable **p.def**$_{t-1}$, the proportion of cases that deferred to the agency's interpretation in the prior term.

Reliance on notions of 'legislative purpose' may induce judges to make interpretations that are more liberal. Notions of a 'purposive' interpretation can encourage dynamic or liberal interpretation. This follows the notion that congress may use vague language since it cannot foresee all future circumstances (Easterbrook, 1988). And, this indicates that congress wanted the interpreter to adapt the word's meaning to changing social situations (Bennion, 1980; Graham, 2002). Thus, if the court adopts a purposive interpretation, then it may incline towards a liberal or dynamic interpretation. Therefore, the models control for the court's tendency to adopt or cite legislative purpose in their reasoning. Thus, the models include the variable **p.purp** $_{t-1}$ the proportion of judgements that cite legislative purpose in the prior term.

Judgments that rely on the 'plain meaning' of statutes are less likely to adopt a liberal or dynamic interpretation. The rationale is that plain-meaning-based judgments rely on the strict text of the statute; and thus, preclude dynamic interpretation (see especially Holmes, 1899; Sunstein and Vermeule, 2003). Thus, the models include **p.text** $_{t-1}$ the proportion of judgments that cite 'textual' or 'plain meaning' reasons in the prior term.

Judgments that use common law doctrines to help interpret legislation are more likely to be liberal. Common law doctrines ordinarily change over time as society changes (Friedman and Ladinsky, 1967; Frischmann and Moylan, 2000; Humphèry, 2009b; Priest, 1977). Thus, if the court relies more on common law doctrines, then it will be more likely to impose a dynamic of liberal interpretation. Thus, the models include **p.comlaw** $_{t-1}$ the proportion of judgments in the prior term that cite common law doctrines in their reasoning.

Judgments that rely on interpretative canons are less likely to be liberal or purposive. Canon-based judgments typically rely on strict 'rules' of interpretation. These rules in general motivate against liberal interpretations.[3] Three key canons are as follows. First, the 'avoidance' canon supports interpretations that avoid constitutional conflicts (Copeland Nagle, 1997; Frickey, 2005; Murchison, 1995; Vermeule, 1997). Second, 'federalism' include such doctrines as the presumption that congress did not intend to usurp the states (Bamberger, 2008; Obhof, 2004; Ross, 1992). Third, the due process canons presume that congress intended to support due process (see e.g. Newland, 1994; Price, 2004; Sachs, 1996). Thus, the models include variables representing the proportion of judgments that rely on canons in the prior judicial term; these are **p.fedcan** $_{t-1}$, **p.avoidcan** $_{t-1}$, **p.dpcan** $_{t-1}$, and **p.othercan** $_{t-1}$ for the federalism, avoidance, due process, and other miscellaneous canons, respectively. While including all canons may induce some multicollinearity, the literature suggests that these canons are often selectively and inconsistently invoked (Llewellyn, 1950; Zeppos, 1990); and thus, represent different aspects of judicial decision-making. Further, Section 6 uses principal component analysis to ensure that multicollinearity does not bias the results.

Reliance on the legislative acquiescence doctrine should increase the liberalness of interpretations. The legislative acquiescence doctrine asserts that if the legislature does not legislate against an interpretation or administrative decision, then the legislature implicitly approves of it (Grabow, 1984 #1695@ 751}). This would

[3] See generally on the function of canons: Sunstein (2000).

militate toward deference in general, and deference to liberal interpretations in specific (Johnstone, 1955). Thus, the models include **p.legaqui** $_{t-1}$, the portion of judgments in the last term that cited legislative acquiescence in their reasoning.

The use of legislative history should increase the likelihood of a liberal or dynamic interpretation (Eskridge and Frickey, 1990; Schacter, 1998). The rationale is that use of legislative histories correlates with reliance on legislative intent. And, reliance on legislative intent correlates with rendering a liberal or dynamic interpretation (Tiefer, 2000). Thus, the paper includes **p.legintent** $_{t-1}$, the proportion of judgments in the last judicial term that relied on legislative intent.

References to the 'act as a whole' should reduce the liberalness of the court's decision. Courts may refer to the 'act as a whole' when interpreting a statute (*Palgo Holdings v. Gowans* (221 C.L.R. 249, [37] (Kirby J) [2005]). The notion is that (a) words 'harmoniously' within each section, and (b) the sections of the act should work 'harmoniously' with each other. This should motivate toward a liberal interpretation since it quadrates with a search for legislative intent. Thus, the models include **p.wact** $_{t-1}$, the proportion of interpretations that rely on the 'act as a whole' in interpreting the legislation.

References to a legislative-code or the 'whole code' should reduce the liberalness of the interpretation. When a court interprets a statute, it may interpret the legislation in the context of other acts within a 'legislative scheme'. Codification should reduce the liberalness of interpretations since codification evinces a clear intention to limit the role of courts (McGowan, 2008; Scarman, 1967). Thus, the models include the variable **p.wcode** $_{t-1}$, the proportion of interpretations that rely on the 'whole code' when interpreting the legislation.

Reliance on 'separation of powers' notions should limit the court's liberalness. This is because courts often invoke 'separation of powers' notions in order to limit agencies' abilities to dynamically or broadly interpret law (Eskridge and Baer, 2008; Manning, 1996).Alternatively, courts may use 'separation of powers' doctrines of canons, and presume that legislation should not violate separation of powers notions (Eskridge, 1989). This should restrict the liberalness of the court's interpretation. Thus, the models include **p.seppow** $_{t-1}$, the proportion of judgments that relied on separation of powers notions in the past judicial term.

5.2 RESULTS

The results indicate that deference promotes purposive and purposive-liberal judgments and does not promote non-purposive-liberal judgments.

Table 4 examines the relation between deference and purposive judgments. The results indicate that if the court adopts any deference then it is significantly more likely to issue a purposive judgment (at 1% significance). Further, both low-level, and medium-level deference promote purposive judgments (at 10%, and 5% significance, respectively). High-level deference does not promote purposive judgments. Interestingly, the systematic level of deference (**p.def_any**$_{t-1}$) and the systematic level of low-level deference (**p.def_low**$_{-1}$) also encourage purposive interpretations. The results support the hypothesis that deference encourages courts to issue purposive interpretations.

The control variables are consistent with expectations. Specifically, purposive interpretations are significantly more likely if the court previously relied on legislative purpose (**p.purp**$_{t-1}$), legislative histories (**p.hist**$_{t-1}$) or common law doctrines (**p.comlaw** $_{t-1}$). And unsurprisingly, a purposive interpretation is less likely if the court has relied on plain meaning or textualist approaches (**p.text** $_{t-1}$) or relied on the notion of legislative acquiescence (**p.legacq** $_{t-1}$). Surprisingly, purposive interpretations are more likely if the court has relied on the federalism cannon in the past (viz. **p.fedcan**$_{t-1}$). However, use of avoidance canons (**p.avcan**$_{-1}$) significantly reduces the chance of a purposive interpretation.

Table 5 examines the relation between deference and purposive-liberal judgments. The results indicate that adopting some deference regime (**def_any**) significantly promotes a purposive-liberal judgment (at 1% significance). And, adopting a low-level regime (**def_low**) promotes purposive-liberal judgments (at 10% significance). Medium-level deference (**def_med**) promotes purposive-liberal judgments, but this result is not significant. This weakly supports the purposive-dynamic hypothesis.

Table 6 examines the relation between deference and non-purposive-liberal judgments. No deference regime promotes non-purposive-liberal judgments. All deference regimes reduce the probability of a non-purposive-

liberal judgment; however, the result is not statistically significant. This is consistent with the hypothesis that deference does not promote unprincipled dynamic interpretations.

Table 7 contains the marginal effects for the PROBIT regression. The marginal effect of deference is the incremental impact that deference has on the probability of a purposive, purposive-liberal, or non-purposive-liberal judgment. The results indicate that adopting some form of deference (**def_any**) or low-level deference (**def_low**) significantly increases the likelihood of a purposive judgment and of a purposive-liberal judgment. Adopting medium-level deference (**def_med**) only significantly increases the probability of a purposive judgment. No deference variable significantly increases the chance of a non-purposive-liberal interpretation. Thus, the marginal effects support the theory that deference increases the likelihood of purposive, and purposive-liberal judgments.

The PROBIT results strongly indicate that deference promotes purposive interpretations and promotes dynamic interpretations that are purposive. This quadrates with the purposive-dynamic hypothesis. However, these results merely establish a correlation between deference and purposive/purposive-liberal interpretations. They do not establish that deference causes purposive or purposive-liberal interpretations. Thus, Section 5 examines causation.

6 DOES DEFERENCE 'CAUSE' PURPOSIVE LIBERAL JUDGMENTS?

Deferential judgments are more likely to be purposive and purposive-liberal. However, the above results reflect correlation between (a) deferring, and (b) issuing a purposive/ purposive-liberal judgment. They do not show that deferring causes the judge to issue a purposive/purposive-liberal judgment. This section ensures that deference causes purposive and purposive-liberal judgments. Section 5.1 explains the methodology and Section 5.2 presents the results.

6.1 METHODOLOGY

The models in Section 4 examine if deference correlates with purposive-liberal interpretations. But, the models do not prove that deference causes purposive-liberal judgments. Instead, for two reasons, it is possible that a court's tendency towards purposive/purposive-liberal interpretations may cause it to defer for. First, the literature indicates liberal courts defer at a higher rate than conservative courts do (Cohen and Spitzer, 1996; Eskridge and Baer, 2008; Eskridge and Raso, 2009). Thus, the tendency to be liberal may cause the tendency to defer. Second, agencies gain efficiency, cost, and reputational benefits if courts defer to their decisions (Asimow, 1994; O'Reilly, 2008). Thus, if the agency believes that the court will tend to purposive/purposive-liberal interpretations, then the agency may structure its interpretation accordingly.

The model in this section examines if deference *causes* purposive or purposive-liberal interpretations. Recall that **interp_type** is the interpretation-type of interest, and **def_type** is the deference type of interest. Suppose that there are *n* exogenous control variables, denote the i^{th} control variable as $\mathbf{control}_i$. Now suppose that the deference-type depends on these control variables and another set of exogenous variables, called instruments. Let the j^{th} instrument be $\mathbf{instrument}_j$. Thus, the simultaneous equation is

$$\Phi^{-1}\left[p(\mathbf{interp\_type}=1)\right] = \mathbf{def\_type}\,\gamma + \sum_{i=1}^{n} \mathbf{control}_i \times \boldsymbol{\beta}_i + \varepsilon \qquad (2)$$

$$\Phi^{-1}\left[p(\mathbf{def\_type}=1)\right] = \mathbf{interp\_type}\,\gamma + \sum_{i=1}^{n} \mathbf{control}_i \times \boldsymbol{\lambda}_i + \sum_{j=1}^{m} \mathbf{instrument}_j \times \boldsymbol{\alpha}_j + u$$

Here, **interp_type** is the specific interpretation type. It is variously **purp**, **purplib**, or **nonpurplib**. The term **def_type** represents the subject deference type. It is variously **def_any**, **def_low**, **def_med**, or **def_high**. Section 4 defines the control variables (denoted $\mathbf{control}_i$). The instrumental variables (denoted $\mathbf{instrument}_j$) are defined below. The terms $\boldsymbol{\beta}$ and $\boldsymbol{\lambda}$ are regression coefficients. The terms ε and u are error terms. Let the correlation between u and ε be ρ=corr(u, ε).

The issue is then how to estimate the system of equations. A model is appropriate only if it yields unbiased and consistent estimators. If ρ=0 then a PROBIT estimation of ρ will yield unbiased and consistent estimators (Greene, 2008; Wooldridge, 2002). However, if $\rho \neq 0$ then PROBIT yields biased and inconsistent estimators (Wooldridge, 2002). But, if **interp_type** and **def_type** are endogenous, then $\rho \neq 0$. And, they are endogenous if

they are bi-causal; that is, if the interpretation-type (i.e. a purposive interpretation) can influence the deference decision and the deference decision can influence whether the interpretation is purposive. But as indicated above, bi-causality is possible. Thus, PROBIT may yield biased and inconsistent estimators. The issue is then how to obtain unbiased and consistent estimators.

The paper ensures consistent estimators by using an instrumental variable PROBIT (IVPROBIT) regression. The IVPROBIT model uses simultaneous equations. The IVPROBIT model yields unbiased and consistent estimators (Amemiya, 1978; Mullahy, 1997; Wooldridge, 2002). It estimates E(**def_type**) = *p*(**def_type|** **control,instrument**) and then estimates *p*(**interp_type|** E(**def_type**), **control**). Thus, the issue is the appropriate instruments.

The paper uses nine exogenous control variables: the proportion of agency interpretations in the last judicial term that were 'liberal' (**p.aglib** $_{t-1}$); the expertness of the agency (**expert**); the accountability of the agency (**accountability**); whether the interpretation is in a strict rule (**rule**) or an adjudication (**adjudication**); whether the President (**president**), House of Representatives (**house**) or Senate (**senate)** are liberal; and if the agency's interpretation is longstanding (**old**) or evolving (**evolve**). The rationale is as follows:

The liberalness of the agency's interpretation may influence the court's decision to defer. The literature indicates that if the court is primarily liberal/ conservative then it may support more agency interpretations that are liberal/conservative (Eskridge and Baer, 2008). The paper examines the lagged proportion of liberal agency-interpretations (**p.aglib** $_{t-1}$) rather than the liberalness of an interpretation in the given case. This is for two reasons. First, the factor of interest is the systematic level of liberalness rather than the liberalness in the subject-case per se. And second, the liberalness in the subject-case is likely endogenous with the deference decision. This is because agencies may structure their decisions in order to promote deference (O'Reilly, 2008). And, prior literature indicates that if the agency's interpretation is liberal, then the court is more likely to accept it (Eskridge and Baer, 2008). Thus, the agency may impose a liberal interpretation in order to increase the chances of deference.

The expertise of the agency may influence its liberalness and decision to defer to it. If the agency has a reputation for expertise in the subject-area, then the court is more likely to defer to its expert judgment.[4] This quadrates with the notion that legislators enact vague legislation precisely to avail of the administrator's expertise in the subject-area.[5] Thus, the paper uses an indicator variable **expert** that equals 1 if the judge cites agency expertise in his/her decisions and equals 0 otherwise.

The supposed democratic accountability of the agency may influence the deference decision. However, there are two conflicting predictions. The first prediction is that accountability should encourage deference. The argument runs that a judicial decision has more legitimacy if it is more accountable to the public. Agencies are often accountable to the parliament, congress, or an elected member of the executive. Thus, agencies are more accountable than courts are. Thus, deference to agencies' decisions increases judicial legitimacies (see e.g. Kmiec, 1988; Scalia,). However, the second and converse argument is that judicial independence enables courts to effectively review government actions (McHugh, 2004); and thus, administrative-accountability militates against deference.[6] Since accountability may influence deference, the models include the indicator variable **accountability** that equals 1 if the judge cites administrative accountability in his/her decisions and equals 0 otherwise.

The format in which the administrator presents the interpretation should influence the deference decision and the liberalness of the interpretation. Administrators may place their interpretations in (a) formal rules that have binding force, (b) administrative adjudications, or (c) informal policy documents that lack legislative force (Eskridge and Baer, 2008). The format is important because under the *Chevron*/*Skidmore* dichotomy, if the interpretation is in a formal rule, then courts should strictly defer to; but, if the interpretation is in an informal policy document, then courts need only assign it some weight in interpreting the act themselves it (*Skidmore v. Swift & Co.* (323 U.S. 134 (Stevens J) [1944]; *United States v. Mead Corp*. (533 U.S. 218, 226-7) [2001]; Pierce, 1997; Schulz Bressman, 2005). Thus, the models include two indicator variables; **rule** which equals 1 if the interpretation is a strict rule and equals 0 otherwise; and, **adjudication**, which equals 1 if the interpretation is an adjudication and equals 0 otherwise. The papers omit an indicator for policy documents in order to avoid multicollinearity.

[4] On the relevance of the FDA's expertise to deference to its opinions: O'Reilly, 2008 On the expertise of the FAA and deference see: Davis and Clarke, 2004
[5] See on the Australian Corporate regulator: Bottomley, 2005
[6] See for the argument that deference may grand the government excess power: Merrill, 1992

The politics of the President, the House of Representatives, and the Senate may influence the agency's decision. Arguably, if the agency is accountable to one or more of these bodies, then these bodies can influence the agency's decisions by (inter alia) controlling administrators' budgets (Mashaw, 2002). Therefore, administrators' interpretations may reflect the politics or policy of the executive body (or bodies) to which it is accountable (Rubin, 2002). This should influence the liberalness of the agency's interpretation. And, if it clashes with the politics of the court, then it may influence the deference decision. Thus, the models include three indicator variables **president**, **house**, and **senate**, which equal 1 if the respective body has 'liberal' politics and equal 0 otherwise.[7]

The continuity of the agency's interpretation should influence both the agency's liberalness and the deference decision. The agency's interpretation can be 'longstanding', 'recent' or 'evolving'.[8] If the interpretation is evolving (or less continuous), then it indicates that the agency's interpretation is more dynamic or time-changing; and thus, more liberal. However, this has conflicting implications for deference. Arguably, agencies are best suited to melding interpretations to changing social circumstances; and thus, courts should defer to administrators' evolving interpretations (Schulz Bressman, 2005; Shuren, 2001). Alternatively, administrators may evolve statutory interpretations in ways that the legislature did not intend, which should militate against deferring to evolving interpretations (Humphèry, 2009a; Miller, 2000). Thus, the paper uses two indicator variables: **old** and **evolve**, which equal 1 if the agency's interpretation is 'longstanding', or is 'evolving', respectively, and equal 0 otherwise.

6.2 RESULTS

The results indicate that deference does cause purposive and purposive-liberal interpretations. The IVPROBIT results are reported in **Table 8**, **Table 9**, and **Table 10**.

The results in **Table 8** examine the relation between deference and the use of purposive reasoning. They indicate that the use of deference-techniques per se (**def_any**), and especially the use of low-level deference

[7] The results are the same in models (unreported) that replace the three variables **president**, **house**, and **senate**, with one variable **pres_house_senate** that equals 1 if all three are liberal and equals 0 otherwise.
[8] Following the data-description in Eskridge and Baer (2008)

(**def_low**), increases the probability of a purposive interpretation (at 5%, and 1% significance, respectively). Further, the court is more likely to adopt a purposive interpretation if it has deferred in general in the past (viz. **p.def_any**$_{t-1}$), or has used low-level deference in the past (viz. **p.def_low**$_{t-1}$).

The results in **Table 9** examine if deference causes dynamic interpretations that are purposive. The results strongly indicate that deference does so. Specifically, **def_any**, **def_low**, and **def_med** significantly increase the probability of a purposive-liberal interpretation (all at 1% significance). This strongly supports the hypothesis that deference causes principled liberal interpretations.

The results in **Table 10** assess if deference causes unprincipled dynamic interpretations; i.e. dynamic interpretations that are non-purposive. The results indicate that deference *reduces* the probability of a non-purposive dynamic interpretation. Thus, the variables **def_any**, **def_low**, and **def_med** are significant and negative (at 10%, 1%, and 10% significance, respectively).

The results overall strongly support the hypothesis that deference promotes principled dynamic interpretations. That is, it promotes purposive interpretations in general; and dynamic-purposive interpretations in specific. Further, these results indicate that deference may reduce the chance of unprincipled dynamic interpretations. That is, deference reduces the chance of a dynamic interpretation that deviates from legislative purpose.

7 ARE THE RESULTS ROBUST?

This paper ensures that the results are robust. First, the paper ensures robustness to model-specification. Plots of the standard errors (unreported) indicate some evidence of non-normality. Non-normality may bias PROBIT results (Bera et al., 1984). Thus, the model replaces PROBIT models with LOGIT models and finds qualitatively similar results.

Second, the paper ensures that multicollinearity does not bias the results. The models could exhibit multicollinearity since there may be correlation between the interpretative techniques; that is, courts may use some interpretative techniques in groups (Sunstein, 1989). A solution is principal component analysis (PCA).

PCA transforms a set of correlated variables into a smaller set of uncorrelated variables.[9] Since the principal components are uncorrelated, they do not exhibit multicollinearity.

The PCA results confirm the previous findings. Here, PCA condenses the interpretative and canon variables into four variables that represent interpretative factors and two variables that represent interpretative canons. Thereafter, the paper computes PROBIT models that replace the interpretation/canon variables with the six principal components. **Table 11** contains the PCA results. The results indicate that deference in general, and low-level deference specifically, increase the likelihood of a purposive and purposive-liberal judgments, but decrease the probability of a non-purposive-liberal judgment.

Third, the paper ensures that the results are not due to agency-specific factors. Heretofore, the models have clustered standard errors by year. However, the literature indicates that deference may concentrate in specific agencies that demonstrate especial expertise.[10] Thus, unobserved agency-effects may bias the results. The paper resolves this by clustering standard errors by year and by agency.[11] The PROBIT and IVPROBIT results are qualitatively the same.

Fourth, the paper ensures that the results do not reflect judge-specific factors. The literature indicates that different judges have different propensities to defer or to issue liberal judgments (Eskridge and Baer, 2008). These judge-specific factors may influence the results. Thus, the paper re-estimates the models but includes a dummy variable to represent particular judges being on the court.[12] The PROBIT and IVPROBIT results are qualitatively the same.

Overall, the robustness tests confirm the prior results that deference encourages purposive, and purposive-liberal judgments.

8 CONCLUSION

[9] For uses of PCA see: Eng and Mak, 2003; Raskin and Terry, 1988; Tipping and Bishop, 1999
[10] See on the FDA O'Reilly, 2008
[11] For an extended description of controlling for unobserved effects, see Petersen, 2008
[12] The particular judges are: Brennan, White, Marshall, Burger, Powell, Blackmun, Rehnquist, Stevens, O'Connor, Scalia, Kennedy, Souter, Thomas, Ginsberg, Breyer, Roberts, Alito, and Lenity.

This paper examined if the doctrine of judicial deference induces principled dynamic interpretations. The paper defines a principled dynamic interpretation as one that is both liberal and bases itself on doctrines of legislative purpose. This bases itself on the premise that statutory interpretations should quadrate with the legislature's purpose for the statute, and should remain flexible to contemporary circumstances.

The paper examines the impact of using some form of deference, the impact of low-level deference (viz. Skidmore, or Consultative deference); medium-level deference (Chevron, or Beth-Israel deference) or high-level deference (Seminole, or Curtis-Wright deference).

The results strongly indicate that deference promotes principled dynamic interpretations. Low-level deference is the most effective at promoting principled-purposive interpretations. However, medium-level deference weakly promotes principled-purposive results. Strong-level deference does not clearly promote principled-purposive interpretations, and may induce results that deviate from the legislative purpose.

These results have key implications for the relation between courts and administrators. The literature has developed theoretical hypotheses about the desirability of deference per se, and various types of deference in specific. However, the literature has not systematically tested these hypotheses. The results from this paper strongly support deference in general, but most strongly support Skidmore-type deference. That is, courts should interpret statutes themselves, employing the administrator's interpretation as a useful guide. The empirical findings indicate that this should promote principled statutory interpretation.

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Table 1: Statistics by year

Year	All	def_any	def_low	def_med	def_high	purp	purplib	nonpurplib
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1983	16	7	4	3	0	8	5	4
1984	66	24	11	13	0	29	17	13
1985	56	13	6	7	0	31	14	8
1986	57	15	10	5	0	23	14	15
1987	57	17	8	5	0	16	10	17
1988	49	16	12	3	4	17	7	10
1989	47	12	6	5	1	23	16	7
1990	51	17	10	6	1	22	13	14
1991	46	17	12	5	1	9	5	12
1992	61	14	8	3	0	21	9	11
1993	41	7	4	2	3	10	8	10
1994	35	11	6	4	1	15	5	9
1995	36	9	2	6	1	14	7	9
1996	41	14	12	2	1	18	10	8
1997	49	15	10	5	0	18	12	12
1998	43	16	9	6	0	13	7	13
1999	31	10	6	2	1	12	2	8
2000	36	9	7	1	2	12	5	9
2001	42	17	9	8	1	13	4	9
2002	38	13	9	4	0	16	7	13
2003	42	22	17	4	0	22	8	3
2004	35	8	6	1	1	15	5	11
2005	39	11	11	0	1	17	7	8
Total	**1014**	**314**	**195**	**100**	**19**	**394**	**197**	**233**

Note. **Table 1** contains frequencies by year. **All** is the number of total judgments; **def_any**, **def_low**, **def_med**, and **def_high** represent the number of judgments that apply any form of deference, low-level, medium-level, and high-level deference, respectively. The columns **purp**, **purplib**, and **nonpurplib** represent the number of judgments that are purposive, purposive-liberal, or non-purposive-liberal, respectively.

Table 2: Univariate results

	purp	purplib	nonpurlib
All	0.389**	0.194**	0.230**
def_any	0.468**	0.255**	0.204**
not_def_any	0.353**	0.167**	0.241**
diff	0.115**	0.088**	-0.038
def_low	0.462**	0.256**	0.210**
not_def_low	0.371**	0.179**	0.234**
diff	0.090*	0.077*	-0.024
def_med	0.510**	0.290**	0.210**
not_def_med	0.375**	0.184**	0.232**
diff	0.135**	0.106*	-0.022
def_high	0.316**	0.053	0.105
not_def_high	0.390**	0.197**	0.232**
diff	-0.074	-0.144	-0.127

Note. **Table 2** contains the means for proportion of interpretations that are (a) purposive, (b) liberal and purposive, and (c) liberal and non-purposive. It contains means for judgments that do (not) adopt any deference technique, a low-level technique (i.e. Skidmore), a medium-level technique (i.e. Chevron), or a high-level technique (i.e. Curtis-Wright or Seminole). Superscripts **, *, and + significance at 1%, 5%, and 10% using a ttest for means and a difference in means test for differences between means.

Table 3: Tetrachoric correlations

	def_all	**def_low**	**def_med**	**def_high**
purp	0.179**	0.132*	0.175*	-0.080
	[0.001]	[0.022]	[0.010]	[0.637]
purplib	0.185**	0.150*	0.180*	-0.285
	[0.002]	[0.020]	[0.016]	[0.147]
nonpurplib	-0.076	-0.046	-0.038	-0.200
	[0.197]	[0.508]	[0.708]	[0.273]

Note. **Table 3** contains tetrachoric correlations. It displays the correlation between (a) judgments that adopt any deference; low-level deference; medium-level deference; or high-level deference and (b) issuing a judgment that is purposive; purposive-dynamic; or, non-purposive-dynamic. Numbers in brackets are p-values. Superscripts **, *, and + denote significance at 1%, 5%, and 10%, respectively.

Table 4: Legislative Purpose Regressions

	(1)	(2)	(3)	(4)	(5)
def_any	0.286**				
	[0.000]				
p.def_any $_{t-1}$	0.591*				
	[0.026]				
def_low		0.250+			0.291*
		[0.053]			[0.018]
p.def_low $_{t-1}$		0.630*			0.596
		[0.023]			[0.213]
def_med			0.280*		0.342**
			[0.046]		[0.007]
p.def.med $_{t-1}$			0.607		0.621
			[0.841]		[0.847]
def_high				-0.128	-0.059
				[0.717]	[0.868]
p.def_high $_{t-1}$				-1.495	-0.304
				[0.533]	[0.920]
p.aglib $_{t-1}$	0.484	0.774*	0.306	0.495	0.34
	[0.165]	[0.026]	[0.832]	[0.275]	[0.858]
p.legpurp $_{t-1}$	1.673**	1.663**	1.592**	1.541**	1.551**
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
p.text $_{t-1}$	-0.669**	-0.712**	-0.686+	-0.732**	-0.594+
	[0.004]	[0.001]	[0.070]	[0.002]	[0.092]
p.wact $_{t-1}$	0.384	0.329	0.353	0.343	0.417
	[0.400]	[0.465]	[0.459]	[0.498]	[0.431]
p.wcode $_{t-1}$	0.286	0.303	0.284	0.214	0.244
	[0.784]	[0.767]	[0.763]	[0.853]	[0.720]
p.leghis $_{t-1}$	1.314**	1.475**	1.197+	1.359**	1.276+
	[0.000]	[0.000]	[0.055]	[0.000]	[0.080]
p.sd $_{t-1}$	-0.449	-0.57	-0.155	-0.222	-0.435
	[0.301]	[0.191]	[0.833]	[0.687]	[0.609]
p.othercan $_{t-1}$	1.502**	1.532**	1.542**	1.530**	1.422**
	[0.000]	[0.000]	[0.000]	[0.001]	[0.000]
p.acqcan $_{t-1}$	-2.853**	-2.783**	-2.876	-2.914**	-2.9
	[0.000]	[0.000]	[0.124]	[0.001]	[0.170]
p.comlaw $_{t-1}$	4.436**	4.667**	4.067*	4.388**	4.408*
	[0.003]	[0.001]	[0.031]	[0.004]	[0.038]
p.fedcan $_{t-1}$	3.719**	3.600**	3.644*	3.587**	3.535+
	[0.002]	[0.003]	[0.028]	[0.002]	[0.059]
p.avcan $_{t-1}$	-2.745**	-2.744**	-2.259*	-2.064*	-2.511+
	[0.008]	[0.005]	[0.018]	[0.045]	[0.061]
p.dpcan $_{t-1}$	2.352	2.647	2.162	2.509	2.295
	[0.204]	[0.128]	[0.272]	[0.166]	[0.192]
p.seppow $_{t-1}$	8.355*	9.502**	8.687	9.915**	7.988
	[0.023]	[0.009]	[0.234]	[0.006]	[0.234]
constant	-2.216**	-2.242**	-1.992**	-1.971**	-2.109**
	[0.000]	[0.000]	[0.000]	[0.000]	[0.002]
Observations	998	998	998	998	998
Pseudo R2	2.52%	2.17%	2.00%	1.71%	2.63%

Wald Chi2	2560.62	795.22	381.16	665.34	4834.27

Note. **Table 4** contains probit regressions that examine the relation between deference and whether the majority cites legislative purpose in its reasoning. The dependent variable is **legpurp**, an indicator that equals 1 if the majority cites legislative purpose in its reasoning and equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts **, *, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 5: Purposive-dynamic regressions

	(1)	(2)	(3)	(4)	(5)
def_any	0.289**				
	[0.003]				
p.def_any $_{t-1}$	-0.303				
	[0.657]				
def_low		0.294+			0.340*
		[0.057]			[0.022]
p.def_low $_{t-1}$		0.017			-1.609**
		[0.980]			[0.005]
def_med			0.253		0.329*
			[0.133]		[0.034]
p.def.med $_{t-1}$			-0.548		7.138**
			[0.829]		[0.003]
def_high				-0.712	-0.624
				[0.169]	[0.246]
p.def_high $_{t-1}$				-4.840*	-12.782**
				[0.017]	[0.000]
p.aglib $_{t-1}$	-0.09	-0.017	0.12	-0.583	-5.028**
	[0.855]	[0.967]	[0.923]	[0.207]	[0.001]
p.legpurp $_{t-1}$	2.033**	2.013**	2.021**	1.625**	0.810+
	[0.000]	[0.000]	[0.000]	[0.000]	[0.083]
p.text $_{t-1}$	-1.478**	-1.369**	-1.366**	-1.157**	-0.698*
	[0.000]	[0.000]	[0.002]	[0.001]	[0.038]
p.wact $_{t-1}$	1.236+	1.222+	1.311+	1.530**	2.286**
	[0.086]	[0.058]	[0.060]	[0.002]	[0.001]
p.wcode $_{t-1}$	-0.989	-1.018	-0.912	-1.466+	-3.436**
	[0.292]	[0.277]	[0.374]	[0.094]	[0.000]
p.leghis $_{t-1}$	1.301**	1.358**	1.396*	1.340**	-0.258
	[0.002]	[0.001]	[0.016]	[0.000]	[0.614]
p.sd $_{t-1}$	0.696	0.6	0.746	1.103**	3.319**
	[0.248]	[0.358]	[0.375]	[0.004]	[0.000]
p.othercan $_{t-1}$	0.881	0.886+	0.928+	0.703*	0.248
	[0.135]	[0.095]	[0.090]	[0.022]	[0.570]
p.legacqu $_{t-1}$	-2.397+	-2.662*	-2.163	-3.111**	-7.600**
	[0.073]	[0.027]	[0.153]	[0.003]	[0.000]
p.comlaw $_{t-1}$	4.077**	4.125**	4.112**	4.317**	2.150+
	[0.001]	[0.002]	[0.001]	[0.000]	[0.096]
p.fedcan $_{t-1}$	4.590*	4.633**	4.063*	4.088**	6.731**
	[0.013]	[0.005]	[0.016]	[0.001]	[0.000]
p.avcan $_{t-1}$	-3.447**	-3.750**	-3.570**	-2.670**	-0.247
	[0.001]	[0.000]	[0.000]	[0.003]	[0.778]
p.dpcan $_{t-1}$	2.870*	3.072*	2.726*	3.196**	3.188**

	[0.026]	[0.014]	[0.031]	[0.001]	[0.004]
p.seppow $_{t-1}$	5.176	3.922	4.625	2.76	-10.921
	[0.377]	[0.462]	[0.593]	[0.549]	[0.152]
constant	-2.348**	-2.437**	-2.557**	-2.229**	-0.54
	[0.000]	[0.000]	[0.000]	[0.000]	[0.321]
Observations	998	998	998	998	998
Pseudo R2	2.66%	2.44%	2.07%	2.20%	3.56%
Wald Chi2	135.96	82.35	82.62	137.34	98655.48

Note. **Table 5** contains regressions that examine the relation between deference and the issuance of a purposive interpretation that is also liberal or dynamic. The dependent variable is **purplib**, an indicator that equals 1 if both (a) the majority cites legislative purpose in its reasoning and (b) the interpretation is 'liberal', but equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts ***, **, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 6: Non-purposive-dynamic regressions

	(1)	(2)	(3)	(4)	(5)
def_any	-0.079				
	[0.364]				
p.def_any $_{t-1}$	0.296				
	[0.473]				
def_low		-0.042			-0.056
		[0.759]			[0.669]
p.def_low $_{t-1}$		0.463			0.881**
		[0.201]			[0.010]
def_med			-0.023		-0.043
			[0.875]		[0.766]
p.def.med $_{t-1}$			-3.192		-4.822*
			[0.121]		[0.018]
def_high				-0.564	-0.573
				[0.177]	[0.159]
p.def_high $_{t-1}$				-1.822	2.715
				[0.354]	[0.279]
p.aglib $_{t-1}$	0.212	0.306	1.638^{+}	0.019	2.780*
	[0.586]	[0.363]	[0.093]	[0.968]	[0.021]
p.legpurp $_{t-1}$	-0.522*	-0.539*	-0.413	-0.720*	-0.233
	[0.049]	[0.037]	[0.145]	[0.028]	[0.505]
p.text $_{t-1}$	0.843**	0.856**	0.469*	0.841**	0.473*
	[0.000]	[0.000]	[0.049]	[0.000]	[0.032]
p.wact $_{t-1}$	0.321	0.363	-0.076	0.311	-0.209
	[0.536]	[0.475]	[0.861]	[0.517]	[0.716]
p.wcode $_{t-1}$	0.021	0.076	0.741	-0.004	1.293*
	[0.982]	[0.930]	[0.306]	[0.997]	[0.012]
p.leghis $_{t-1}$	-1.008**	-0.947**	-0.532	-1.086**	-0.095
	[0.001]	[0.003]	[0.238]	[0.000]	[0.839]
p.sd $_{t-1}$	-0.57	-0.668^{+}	-1.461**	-0.621	-2.146**
	[0.150]	[0.087]	[0.004]	[0.129]	[0.001]
p.othercan $_{t-1}$	-2.276**	-2.317**	-2.358**	-2.444**	-2.250**
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
p.legacqu $_{t-1}$	3.829**	3.999**	5.703**	3.852**	6.888**
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
p.comlaw $_{t-1}$	-1.67	-1.503	-0.834	-1.704	-0.296
	[0.143]	[0.178]	[0.496]	[0.134]	[0.796]
p.fedcan $_{t-1}$	-3.831**	-3.984**	-4.716**	-3.990**	-5.599**
	[0.009]	[0.007]	[0.000]	[0.003]	[0.000]
p.avcan $_{t-1}$	1.08	1.111	1.364^{+}	1.743*	0.362
	[0.212]	[0.166]	[0.052]	[0.023]	[0.600]
p.dpcan $_{t-1}$	0.298	0.234	0.281	0.291	0.229

	[0.820]	[0.858]	[0.828]	[0.823]	[0.855]
p.seppow $_{t-1}$	-8.047^{+}	-7.726*	0.904	-6.771^{+}	2.974
	[0.074]	[0.039]	[0.879]	[0.069]	[0.630]
constant	0.011	-0.051	0.002	0.353	-0.565
	[0.976]	[0.888]	[0.994]	[0.321]	[0.194]
Observations	998	998	998	998	998
Pseudo R2	1.55%	1.53%	1.54%	1.72%	1.84%
Wald Chi2	491.61	629.08	423.6	369.36	2490.53

Note. **Table 6** contains regressions that examine the relation between deference and the issuance of a non-purposive interpretation that is liberal or dynamic. The dependent variable is **nonpurplib**, an indicator that equals 1 if both (a) the majority does not cite legislative purpose in its reasoning but (b) the interpretation is 'liberal', and equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts **, *, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 7: Marginal effects regressions

	purp	**purp**	**purp**	**purp**	**purplib**	**purplib**	**purplib**	**purplib**	**nonpurplib**	**nonpurplib**	**nonpurplib**	**nonpurplib**
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
def_any	0.110**				0.081**				-0.023			
	[0.000]				[0.003]				[0.364]			
p.def_any$_{t-1}$	0.226*				-0.081				0.089			
	[0.026]				[0.657]				[0.473]			
def_low		0.097+				0.085+				-0.012		
		[0.053]				[0.057]				[0.759]		
p.def_low$_{t-1}$		0.241*				0.004				0.139		
		[0.023]				[0.980]				[0.201]		
def_med			0.110*				0.074				-0.007	
			[0.046]				[0.133]				[0.875]	
p.def_med$_{t-1}$			0.232				-0.147				-0.958	
			[0.841]				[0.829]				[0.121]	
def_high				-0.048				-0.134				-0.133
				[0.717]				[0.169]				[0.177]
p.def_high$_{t-1}$				-0.571				-1.297*				-0.546
				[0.533]				[0.017]				[0.354]
p.aglib$_{t-1}$	0.185	0.296*	0.117	0.189	-0.024	-0.005	0.032	-0.156	0.064	0.092	0.492+	0.006
	[0.165]	[0.026]	[0.832]	[0.275]	[0.855]	[0.967]	[0.923]	[0.207]	[0.586]	[0.363]	[0.093]	[0.968]
p.legpurp $_{t-1}$	0.639**	0.635**	0.608**	0.589**	0.544**	0.540**	0.543**	0.435**	-0.157*	-0.162*	-0.124	-0.216*
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.049]	[0.037]	[0.145]	[0.028]
p.text $_{t-1}$	-0.255**	-0.272**	-0.262+	-0.280**	-0.395**	-0.367**	-0.367**	-0.310**	0.253**	0.257**	0.141*	0.252**
	[0.004]	[0.001]	[0.070]	[0.002]	[0.000]	[0.000]	[0.002]	[0.001]	[0.000]	[0.000]	[0.049]	[0.000]
p.wact $_{t-1}$	0.147	0.126	0.135	0.131	0.331+	0.328+	0.352+	0.410**	0.096	0.109	-0.023	0.093
	[0.400]	[0.465]	[0.459]	[0.498]	[0.086]	[0.058]	[0.060]	[0.002]	[0.536]	[0.475]	[0.861]	[0.517]
p.wcode $_{t-1}$	0.109	0.116	0.108	0.082	-0.265	-0.273	-0.245	-0.393+	0.006	0.023	0.222	-0.001

	[0.784]	[0.767]	[0.763]	[0.853]	[0.292]	[0.277]	[0.374]	[0.094]	[0.982]	[0.930]	[0.306]	[0.997]
p.leghis $_{t-1}$	0.502**	0.563**	0.457+	0.519**	0.348**	0.364**	0.375*	0.359**	-0.303**	-0.284**	-0.16	-0.326**
	[0.000]	[0.000]	[0.055]	[0.000]	[0.002]	[0.001]	[0.016]	[0.000]	[0.001]	[0.003]	[0.238]	[0.000]
p.sd $_{t-1}$	-0.172	-0.218	-0.059	-0.085	0.186	0.161	0.201	0.296**	-0.171	-0.201+	-0.438**	-0.186
	[0.301]	[0.191]	[0.833]	[0.687]	[0.248]	[0.358]	[0.375]	[0.004]	[0.150]	[0.087]	[0.004]	[0.129]
p.othercan $_{t-1}$	0.574**	0.585**	0.589**	0.585**	0.236	0.238+	0.249+	0.188*	-0.683**	-0.696**	-0.707**	-0.733**
	[0.000]	[0.000]	[0.000]	[0.001]	[0.135]	[0.095]	[0.090]	[0.022]	[0.000]	[0.000]	[0.000]	[0.000]
p.legacqu $_{t-1}$	-1.090**	-1.063**	-1.099	-1.113**	-0.641+	-0.714*	-0.581	-0.834**	1.149**	1.201**	1.711**	1.154**
	[0.000]	[0.000]	[0.124]	[0.001]	[0.073]	[0.027]	[0.153]	[0.003]	[0.000]	[0.000]	[0.000]	[0.000]
p.comlaw $_{t-1}$	1.694**	1.783**	1.554*	1.677**	1.091**	1.106**	1.105**	1.157**	-0.501	-0.451	-0.25	-0.511
	[0.003]	[0.001]	[0.031]	[0.004]	[0.001]	[0.002]	[0.001]	[0.000]	[0.143]	[0.178]	[0.496]	[0.134]
p.fedcan $_{t-1}$	1.420**	1.375**	1.392*	1.371**	1.228*	1.242**	1.092*	1.096**	-1.150**	-1.196**	-1.415**	-1.196**
	[0.002]	[0.003]	[0.028]	[0.002]	[0.013]	[0.005]	[0.016]	[0.001]	[0.009]	[0.007]	[0.000]	[0.003]
p.avcan $_{t-1}$	-1.048**	-1.048**	-0.863*	-0.789*	-0.922**	-1.005**	-0.959**	-0.715**	0.324	0.334	0.409+	0.522*
	[0.008]	[0.005]	[0.018]	[0.045]	[0.001]	[0.000]	[0.000]	[0.003]	[0.212]	[0.166]	[0.052]	[0.023]
p.dpcan $_{t-1}$	0.898	1.011	0.826	0.959	0.768*	0.824*	0.733*	0.856**	0.09	0.07	0.084	0.087
	[0.204]	[0.128]	[0.272]	[0.166]	[0.026]	[0.014]	[0.031]	[0.001]	[0.820]	[0.858]	[0.828]	[0.823]
p.seppow $_{t-1}$	3.191*	3.630**	3.319	3.789**	1.385	1.052	1.243	0.74	-2.416+	-2.320*	0.271	-2.029+
	[0.023]	[0.009]	[0.234]	[0.006]	[0.377]	[0.462]	[0.593]	[0.549]	[0.074]	[0.039]	[0.879]	[0.069]
Observations	998	998	998	998	998	998	998	998	998	998	998	998
Wald Chi2	2560.62	795.22	381.16	665.35	135.96	82.35	82.62	137.34	491.61	629.08	423.60	369.36
Pseudo R2	2.50%	2.20%	2.00%	1.70%	2.70%	2.40%	2.10%	2.20%	1.60%	1.50%	1.50%	1.70%

Note. **Table 7** contains the marginal effects for the PROBIT regressions in Equation 1. The first row contains the dependent variable. Numbers in ordinary font are marginal effects; numbers in brackets are p-values. The models control for clustering by year. **Table 12** contains the variable definitions. Superscripts **, *, and + denote significance at 1%, 5%, and 10%, respectively.

Table 8: Legislative purpose IV regressions

	(1)	(2)	(3)	(4)
def_any	0.462*			
	[0.049]			
p.def_any$_{t-1}$	0.681*			
	[0.014]			
def_low		2.077**		
		[0.000]		
p.def_low$_{t-1}$		0.450+		
		[0.096]		
def_med			0.400	
			[0.135]	
p.def.med$_{t-1}$			1.141	
			[0.121]	
def_high				0.511
				[0.698]
p.def_high$_{t-1}$				-2.643
				[0.166]
p.legpurp$_{t-1}$	1.629**	1.229**	0.117+	-0.130**
	[0.000]	[0.000]	[0.085]	[0.000]
p.text$_{t-1}$	-0.705**	-1.015**	-0.014	-0.785*
	[0.007]	[0.008]	[0.020]	[0.620]
p.wact$_{t-1}$	0.488	0.228**	0.421	-0.101*
	[0.288]	[0.564]	[0.375]	[0.279]
p.wcode$_{t-1}$	0.534	0.533	-0.093	0.297
	[0.567]	[0.337]	[0.727]	[0.795]
p.leghis$_{t-1}$	1.194**	-0.222*	1.072**	1.316**
	[0.000]	[0.014]	[0.000]	[0.967]
p.sd$_{t-1}$	-0.462	-1.758**	0.238*	0.015
	[0.224]	[0.000]	[0.019]	[0.978]
p.othercan$_{t-1}$	1.377**	0.651	1.500**	1.455**
	[0.000]	[0.146]	[0.000]	[0.001]
p.legacqu$_{t-1}$	-2.877**	0.272+	-0.620*	-3.142**
	[0.000]	[0.001]	[0.002]	[0.500]
p.comlaw$_{t-1}$	4.219**	3.444**	3.858**	4.329**
	[0.002]	[0.000]	[0.827]	[0.715]
p.fedcan$_{t-1}$	3.866**	4.082**	3.700**	-0.382**
	[0.001]	[0.000]	[0.003]	[0.009]
p.avcan$_{t-1}$	-2.692**	-0.17	-0.437**	-1.721+
	[0.005]	[0.000]	[0.002]	[0.934]
p.dpcan$_{t-1}$	1.557	-1.045**	0.708*	-0.054
	[0.369]	[0.046]	[0.030]	[0.583]
p.seppow$_{t-1}$	7.236*	-1.405	7.282*	8.939*
	[0.030]	[0.000]	[0.048]	[0.011]
constant	-1.998**	-0.123	-0.041	-2.048**
	[0.000]	[0.031]	[0.560]	[0.000]
observations	998	998	998	998

Note. **Table 8** contains IVPROBIT regressions that examine the relation between deference and whether the majority cites legislative purpose in its reasoning. The dependent variable is **legpurp**, an indicator that equals 1

if the majority cites legislative purpose in its reasoning and equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts **, *, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 9: Purposive-Liberal IV Regressions

	(1)	(2)	(3)	(4)
def_any	0.656**			
	[0.001]			
p.def_any$_{t-1}$	-0.356			
	[0.592]			
def_low		2.382**		
		[0.001]		
p.def_low$_{t-1}$		0.163		
		[0.773]		
def_med			0.787**	
			[0.002]	
p.def.med$_{t-1}$			-0.643	
			[0.512]	
def_high				0.673
				[0.620]
p.def_high$_{t-1}$				-3.215*
				[0.044]
p.legpurp$_{t-1}$	2.016**	1.158	0.123+	1.932**
	[0.000]	[0.337]	[0.062]	[0.000]
p.text$_{t-1}$	-1.486**	0.398**	-1.205**	-1.252**
	[0.000]	[0.122]	[0.006]	[0.528]
p.wact$_{t-1}$	1.109	0.012	1.303*	1.436**
	[0.145]	[0.992]	[0.789]	[0.004]
p.wcode$_{t-1}$	-0.988	-0.054	-0.114	-1.487
	[0.311]	[0.769]	[0.658]	[0.110]
p.leghis$_{t-1}$	1.204*	0.534	0.133	0
	[0.010]	[0.568]	[0.146]	[0.998]
p.sd$_{t-1}$	0.379	0.847**	0.264**	1.018*
	[0.524]	[0.000]	[0.203]	[0.000]
p.othercan$_{t-1}$	0.738	0.037	0.729	-0.058
	[0.263]	[0.847]	[0.430]	[0.225]
p.legaqui$_{t-1}$	-2.148	-1.853	-1.628	0.076
	[0.135]	[0.348]	[0.042]	[0.457]
p.comlaw$_{t-1}$	4.153**	-0.244	3.858**	4.505**
	[0.003]	[0.275]	[0.004]	[0.000]
p.fedcan$_{t-1}$	4.553*	3.916	3.441+	4.504**
	[0.024]	[0.155]	[0.061]	[0.005]
p.avcan$_{t-1}$	-3.362**	0.323	-0.407**	0.02
	[0.006]	[0.183]	[0.003]	[0.774]
p.dpcan$_{t-1}$	2.959*	2.6	0.749*	3.586**
	[0.015]	[0.273]	[0.113]	[0.003]
p.seppow$_{t-1}$	6.578	-2.545	4.367	-0.199
	[0.273]	[0.105]	[0.456]	[0.390]
constant	-2.231**	-0.374	-2.445**	-2.628**
	[0.001]	[0.359]	[0.011]	[0.000]
observations	998	998	998	998

Note. **Table 9** contains IVPROBIT regressions that examine the relation between deference and the issuance of a purposive interpretation that is also liberal or dynamic. The dependent variable is **purplib**, an indicator that equals 1 if both (a) the majority cites legislative purpose in its reasoning and (b) the interpretation is 'liberal',

but equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts **, *, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 10: Non-purposive-liberal IV Regressions

	(1)	(2)	(3)	(4)
def_any	-0.395^{+}			
	[0.092]			
p.def_any$_{t-1}$	0.355			
	[0.370]			
def_low		-1.767**		
		[0.002]		
p.def_low$_{t-1}$		0.185		
		[0.644]		
def_med			-0.430^{+}	
			[0.097]	
p.def.med$_{t-1}$			0.295	
			[0.697]	
def_high				0.608
				[0.604]
p.def_high$_{t-1}$				-1.748
				[0.264]
p.legpurp$_{t-1}$	-0.549*	-0.567*	0.116^{+}	-0.120**
	[0.036]	[0.027]	[0.057]	[0.098]
p.text$_{t-1}$	0.872**	0.321**	0.668**	0.006
	[0.000]	[0.001]	[0.001]	[0.890]
p.wact$_{t-1}$	0.45	0.759	0.274	0.408
	[0.394]	[0.133]	[0.806]	[0.011]
p.wcode$_{t-1}$	0.165	0.208	-0.103	0.015
	[0.847]	[0.732]	[0.699]	[0.991]
p.leghis$_{t-1}$	-0.966**	-0.204**	0.126	-1.031**
	[0.002]	[0.000]	[0.000]	[0.692]
p.sd$_{t-1}$	-0.31	0.875	0.251*	-0.449
	[0.524]	[0.000]	[0.285]	[0.000]
p.othercan$_{t-1}$	-2.178**	-1.475*	0.074	-2.335**
	[0.000]	[0.047]	[0.000]	[0.000]
p.legaqui$_{t-1}$	3.590**	3.374**	-0.617*	0.062
	[0.000]	[0.199]	[0.000]	[0.000]
p.comlaw$_{t-1}$	-1.890^{+}	-0.300*	0.078	-1.529
	[0.089]	[0.046]	[0.118]	[0.161]
p.fedcan$_{t-1}$	-3.834*	-4.160**	0.587^{+}	-0.369**
	[0.024]	[0.000]	[0.035]	[0.008]
p.avcan$_{t-1}$	1.066	1.680*	-0.436**	1.730*
	[0.260]	[0.689]	[0.172]	[0.810]
p.dpcan$_{t-1}$	-0.047	-1.066	0.722*	0.172
	[0.961]	[0.105]	[0.828]	[0.861]
p.seppow$_{t-1}$	-9.528*	-9.969**	-7.365^{+}	-0.119
	[0.044]	[0.004]	[0.203]	[0.097]
constant	0.012	-0.173	-1.395**	-2.048**
	[0.978]	[0.000]	[0.000]	[0.000]
observations	998	998	998	998

Note. **Table 10** contains IVPROBIT regressions that examine the relation between deference and the issuance of a non-purposive interpretation that is liberal or dynamic. The dependent variable is **nonpurplib**, an indicator that equals 1 if both (a) the majority does not cite legislative purpose in its reasoning but (b) the interpretation is

'liberal', and equals 0 otherwise. The models cluster standard errors by year. Numbers in brackets are p-values. Superscripts **, *, and $^{+}$ denote significance at 1%, 5%, and 10%, respectively.

Table 11: PCA Regressions

	purp	purp	purp	purp	purplib	purplib	purplib	purplib	nonpurplib	nonpurplib	nonpurplib	nonpurplib
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
def_any	0.280**				0.279**				-0.09			
	[0.000]				[0.004]				[0.285]			
p.def_any$_{t-1}$	0.425				-0.476				-0.063			
	[0.233]				[0.266]				[0.892]			
def_low		0.224+				0.274+				-0.049		
		[0.073]				[0.073]				[0.708]		
p.def_low$_{t-1}$		-0.032				-0.468				0.16		
		[0.946]				[0.349]				[0.755]		
def_med			0.295*				0.264				-0.037	
			[0.032]				[0.107]				[0.801]	
p.def_med$_{t-1}$			1.617+				0.269				-0.284	
			[0.053]				[0.752]				[0.771]	
def_high				-0.137				-0.712				-0.535
				[0.701]				[0.162]				[0.184]
p.def_high$_{t-1}$				-1.602				-3.319+				-2.325
				[0.328]				[0.060]				[0.226]
canon_comp_1	0.043	0.043	0.061	0.041	0.071	0.083+	0.071	0.077	-0.003	-0.004	-0.007	0
	[0.262]	[0.278]	[0.161]	[0.284]	[0.177]	[0.092]	[0.149]	[0.117]	[0.948]	[0.918]	[0.894]	[1.000]
canon_comp_2	-0.02	-0.018	-0.033	-0.009	0.008	-0.005	-0.007	0.008	0.055	0.056	0.058	0.066
	[0.541]	[0.601]	[0.382]	[0.814]	[0.800]	[0.880]	[0.835]	[0.809]	[0.276]	[0.275]	[0.255]	[0.246]
interp_comp1	0.073**	0.077**	0.073*	0.076**	0.052*	0.050+	0.049*	0.04	-0.045	-0.047	-0.045	-0.058+
	[0.007]	[0.006]	[0.010]	[0.009]	[0.042]	[0.060]	[0.038]	[0.103]	[0.112]	[0.107]	[0.123]	[0.085]
interp_comp2	0.060+	0.068+	0.046	0.058	0.120**	0.120**	0.111**	0.098**	-0.018	-0.021	-0.016	-0.034
	[0.086]	[0.065]	[0.135]	[0.125]	[0.000]	[0.000]	[0.002]	[0.003]	[0.587]	[0.541]	[0.635]	[0.377]

interp_comp3	0.022	0.016	0.026	0.029	0.026	0.019	0.033	0.045	0.02	0.022	0.02	0.033
	[0.446]	[0.596]	[0.221]	[0.323]	[0.285]	[0.472]	[0.203]	[0.128]	[0.532]	[0.481]	[0.520]	[0.371]
interp_comp4	0.03	0.027	-0.003	0.022	0.012	-0.004	-0.001	-0.01	0.034	0.037	0.041	0.029
	[0.543]	[0.593]	[0.940]	[0.668]	[0.708]	[0.907]	[0.984]	[0.762]	[0.419]	[0.392]	[0.266]	[0.464]
constant	-0.513**	-0.328**	-0.491**	-0.259**	-0.819**	-0.844**	-0.934**	-0.810**	-0.697**	-0.765**	-0.710**	-0.695**
	[0.000]	[0.004]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Observations	998	998	998	998	998	998	998	998	998	998	998	998
Wald Chi2	40.733	16.09	29.145	14.429	40.333	32.734	46.628	22.281	4.05	3.836	4.452	5.732
Pseudo R2	1.50%	1.10%	1.30%	0.70%	1.70%	1.50%	1.10%	1.20%	0.40%	0.04%	0.04%	0.06%

Note. Table 11 contains principal component regressions. The models are PROBIT models that use principal components as control variables. The first row is the dependent variable. **Table 12** contains the variable definitions, and defines the principal components in more detail. Numbers in brackets are p-values. Superscripts **, *, and + denote significance at 1%, 5%, and 10%, respectively.

Table 12: Variable definitions

Variable	Definition
Dependent Variables	
purp	A dummy variable that equals 1 if the majority cites legislative purpose as a basis for its reasoning
libpurp	A dummy variable that equals 1 if both (a) the interpretation is 'liberal' or 'dynamic' in nature and (b) the majority cites legislative purpose as a basis for its reasoning
nonlibpur	A dummy variable that equals 1 if (a) the interpretation is 'liberal' or 'dynamic' in nature but (b) the majority does not cite legislative purpose in its reasoning
Deference Variables	
def_any	A dummy variable that equals 1 if the court adopts any deference technique and equals 0 otherwise
$p.def\_any_{t-1}$	The proportion of judgments in the prior judicial term that adopt any deference technique
def_low	A dummy variable that equals 1 if the court adopts a low-level deference technique (Skidmore or Consultative deference) and equals 0 otherwise
$p.def\_low_{t-1}$	The proportion of judgments in the prior judicial term that adopt a low-level deference technique
def_med	A dummy variable that equals 1 if the court adopts a medium-level deference technique (Chevron or Beth-Israel) and equals 0 otherwise
$p.def.med_{t-1}$	The proportion of judgments in the prior judicial term that adopt a medium-level deference technique
def_high	A dummy variable that equals 1 if the court adopts any high-level deference technique (Curtis-Wright or Seminole) and equals 0 otherwise
$p.def\_high_{t-1}$	The proportion of judgments in the prior judicial term that adopt a high-level deference technique
Control Variables	
$p.legpurp_{t-1}$	The proportion of judgments in the prior judicial term that cited legislative purpose in the reasoning
$p.text_{t-1}$	The proportion of judgments in the prior judicial term that cited textualism or plain meaning in the reasoning
$p.wact_{t-1}$	The proportion of judgments in the prior judicial term that referred to the 'whole act' or the 'act as a whole' in the reasoning
$p.wcode_{t-1}$	The proportion of judgments in the prior judicial term that cited the 'whole code' or the 'code as a whole' purpose in the reasoning
$p.leghist_{t-1}$	The proportion of judgments in the prior judicial term that referred to legislative history in the reasoning
$p.sd_{t-1}$	The proportion of judgments in the prior judicial term that deferred to stare decisis or used it as a major contributing factor in the reasoning
$p.othercan_{t-1}$	The proportion of judgments in the prior judicial term that relied on miscellaneous other canons in the reasoning
$p.legaqui_{t-1}$	The proportion of judgments in the prior judicial term that cited the legislative acquiescence in the reasoning
$p.comlaw_{t-1}$	The proportion of judgments in the prior judicial term that utilized common law doctrines in the reasoning
$p.fedcan_{t-1}$	The proportion of judgments in the prior judicial term that cited the federalism canon in the reasoning
$p.avcan_{t-1}$	The proportion of judgments in the prior judicial term that cited avoidance canon in the reasoning
$p.dpcan_{t-1}$	The proportion of judgments in the prior judicial term that referred to the due process canon in the reasoning
$p.seppow_{t-1}$	The proportion of judgments in the prior judicial term that cited separation of powers in the reasoning

Instrumental Variables

expert	A dummy variable that equals 1 if the court cites the agency's 'expertise' in its reasoning
accountability	A dummy variable that equals 1 if the court cites the accountability of the agency to the executive or the legislature in its reasoning
rule	A dummy variable that equals 1 if the agency's interpretation was in a 'rule' that has legislative force
adj	A dummy variable that equals 1 if the agency's interpretation was in the form of an adjudication
inf	A dummy variable that equals 1 if the agency's interpretation was in an informal policy document
president	A dummy variable that equals 1 if the President is 'conservative' and equals 0 if the president is 'liberal'
house	A dummy variable that equals 1 if the House of Representatives is predominantly 'conservative' and equals 0 if the president is 'liberal'
senate	A dummy variable that equals 1 if the Senate is predominantly 'conservative' and equals 0 if the president is 'liberal'
old	A dummy variable that equals 1 if the agency's interpretation is old or longstanding
evo	A dummy variable that equals 1 if the agency's interpretation is evolving or time-changing
new	A dummy variable that equals 1 if the agency's interpretation is new

Principal Components

interp_comp1	A principal component that mainly reflects the interpretative factors p.wcode $_{t-1}$ and p.sd $_{t-1}$
interp_comp2	A principal component that mainly reflects the interpretative factors p.legpurp $_{t-1}$ and p.leghist$_{t-1}$
interp_comp3	A principal component that mainly reflects the interpretative factors p.text$_{t-1}$, p.wact$_{t-1}$ and p.seppow$_{t-1}$
interp_comp4	A principal component that mainly reflects the interpretative factor p.legaqui$_{t-1}$
canon_comp1	A principal component that mainly reflects the canon variables p.fedcan $_{t-1}$ and p.dpcan$_{t-1}$
canon_comp2	A principal component that mainly reflects the canon variable p.avcan$_{t-1}$