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Judicial Deference to Agency Interpretations of Statutes: In Support of Skidmore Deference

Abstract

This paper models the optimal level of judicial deference to agency-interpretations of statutes. The court wants to elicit high quality interpretations from agencies but prefers not to defer to the agency’s interpretation. The agency wants the court to defer to its interpretation but prefers not to exert the effort required to produce quality interpretations. I show that the optimal amount of deference depends on the quality of the agency’s interpretation and its relation to agency-effort. This supports the Skidmore doctrine, under which the agency’s interpretation is neither irrelevant to, nor determinative of, the court’s interpretation of the statute.

Keywords: Deference; Skidmore; Chevron; Judicial Review; Administrative Law

JEL Codes: H83; K23

1 Introduction

This paper analyzes the optimal amount of ‘deference’ that judges should give to agencies’ interpretations of statutes. Statutes grant and define agencies’ powers. Agencies interpret these statutes and act under their interpretations. People can challenge agencies’ actions. Courts must then interpret the statute. When interpreting the statute, courts can assign a degree of ‘weight’ or ‘deference’ to the agency’s interpretation. This paper models the court’s optimal actions. It shows that courts should not blindly accept or reject all agency interpretations; instead the amount of deference should depend on the quality of the agency’s actions, the risk aversion of the agency and the court, and the utility the agency gains from merely producing a good interpretation.

The administrative situation is as follows. Some statutes grant powers to administrative agencies. The nature of these powers is an issue of statutory interpretation. Thus, agencies interpret these statutes and act based on these interpretations. People can challenge agencies’ interpretations. Thereafter, courts must interpret the statute to determine if the agency’s actions were outside the appropriate exercise of power.
Several doctrines guide how courts must interpret the statute. The presently relevant doctrines pertain to how the court treats the agency's interpretation. The *Chevron* doctrine mandates that the court must follow the agency's interpretation if (a) the statute is not vague or unclear, and (b) the agency's interpretation is reasonable.\(^1\) The *Skidmore* doctrine indicates that the court need not follow the agency's interpretation, but merely gives it some weight in reaching its final interpretation of the statute.\(^2\) The *Einfeld* doctrine suggests that courts could completely ignore agencies' interpretations of statutes.\(^3\) Overall, these doctrines tell the court how much 'weight' or 'deference' the court should assign to the agency's interpretation. Eskridge and Baer\(^4\) highlight that there are so many deference doctrines that there is actually a 'continuum' of deference-levels that define the 'level' of deference that courts give to agencies.

Some prior literature has examined the deference decision. This has received some legal-theoretic analysis,\(^5\) and some empirical attention,\(^6\) but has seen little game theoretic modeling. The existing modeling generally models the deference decision as an either/or decision, rather than the continuum noted in Eskridge and Baer\(^7\), and/or has given the deference-decision to the legislature. Importantly, Givati and Stephenson\(^8\) model the deference decision under inconsistent agency interpretations. A key point of difference in this paper is that I focus on eliciting an interpretation that facilitates the optimal interpretation of statutes as opposed to the ideological content of agencies' interpretations.

This paper fills a gap in the literature by modeling the optimal amount of deference. It considers a situation where the court decides how much deference to grant to the agency. The court's utility from deference depends on quality of the agency's interpretation, which depends on the amount of effort that the agency

\(^1\) This follows: *Chevron USA Inc v Natural Resources Defense Council, Inc* 467 US 837 (1984).

\(^2\) This follows: *Skidmore v Swift & Co* 323 US 134 (1944).

\(^3\) This follows: *Corporation of the City of Enfield v Development Assessment Commission* (2000) 169 ALR 400.


\(^7\) Eskridge & Baer, supra note 4.

exerts. The agency’s utility increases with the amount of deference it receives but decreases with the amount of effort exerted. The model shows that the level of deference depends on the utility functions of the court and the agency, the quality and probability distribution of the agency-interpretation. This implies that the agency’s interpretation should be merely one factor that helps to guide the judge’s interpretation of the statute. This supports *Skidmore* type deference.

The paper proceeds as follows: Section 2 discusses relevant prior literature, and the need for further modeling. Section 3 sets up the theoretical model. Section 4 provides the general analysis. Section 5 concludes.

## 2 Prior relevant literature

This paper connects with some prior literature; however, the literature has not examined a situation where there is a continuum of deference levels, and where the court has discretion over the level of deference. Some papers model the amount of discretion that the legislature should give to agencies and/or courts.

Tiller and Spiller model the interaction between agencies and courts, but they focus on an either/or decision to accept or reject the agency’s interpretation, rather than on the degree of weight or deference that the court should assign. Shipman allows the legislature to modify the amount of deference. However, this assumes that the legislature sets the deference regime. In reality, courts determine the amount of deference that they give to agencies.

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Wright\textsuperscript{13} focus on legislative-policy making, where the legislature can influence the level of deference by choosing whether the \textit{Chevron} doctrine applies to the statute (i.e. whether the court must defer to the agency). However, judicial decision making remains binary and this assumes that the legislature can control the level of deference. By contrast, \textit{Skidmore} indicates that courts can treat the agency’s decision as merely one factor in reaching its own interpretation.

Cohen and Spitzer\textsuperscript{14} model a situation involving a supreme court, appellate court, and an agency. The supreme court sets the amount of deference and the appellate court must follow this due to the rules of precedent. They argue that the a conservative supreme court should set a high level of deference if agencies are conservative, and a low level of agencies are liberal. However, this assumes that the supreme court can perfectly foresee the agency’s political preferences, which appears unrealistic given the myriad agencies that exist.

Givati\textsuperscript{15} shows that the level of deference can influence agency behavior. Givati shows that if it is easier to convince a court to defer to an interpretation, then the agency will take a relatively more aggressive and risky strategy. That is, the agency adjusts its behavior based upon the anticipated level of deference. This is important because it implies that deference can encourage agencies to create different types of interpretations. However, does not per se indicate the level of deference that is desirable to create optimal interpretations of statutes.

Givati and Stephenson\textsuperscript{16} model a situation where an agency might revise its interpretation based upon changes in its ideology. The model is a two-period model. The agency can create interpretations in both periods. In each period the agency is subject to different political pressures. Thus, in each period, it might be optimal to create different statutory interpretations to reflect these ideological pressures. Givati and Stephenson find that if the court is less deferential to revised agency interpretations, then the agency should avoid extreme interpretations because it might be difficult to reverse them; and thus, might be difficult to adjust to changing ideological pressures. This is an important contribution to the study of how agencies and courts interact; however, is relatively silent on the type of deference that will promote the best interpretation of statutes.

\begin{flushright}
\textsuperscript{16} Givati & Stephenson, \textit{supra} note 8.
\end{flushright}
3 Set Up

The model involves an agency and a court. The court interprets the legislation and implements its interpretation. The court reviews the agency’s actions. In doing so, the court must interpret the statute. This interpretation must assign some level of weight to the agency’s interpretation. There is a continuum of possible weights; it can range from zero weight (as under Enfield) through to blind obedience (as under Seminole Rock and Curtiss-Wright). I assume that this is a one period model (i.e. the court does not consider the quality of the agency’s prior interpretations); altering this assumption does not significantly change the results.

The agent interprets the statute. The agent’s interpretation is of a quality level \( q \in [q^l, q^u] \). The level of quality is a function of a stochastic variable \( \theta \in \Theta \) and the level of effort that the agent exerts is \( a \). That is, \( q = Q(e, \theta) \).

Assume that the quality of the interpretation is a random variable whose cumulative distribution function depends on the amount of effort \( e \). That is, the cumulative distribution function is \( F(q|e) \), and the density function is \( f(q|e) \). The intuition is that the quality of the interpretation is random. However, higher levels of effort stochastically dominate lower levels of effort.

The agent likes deference. However, effort is costly. Assume that the utility is separable in the amount of deference and the amount of effort, such that the utility function is \( \gamma(e)u(w) - \phi(e) \), where \( w \) is the level of deference, and \( a \) is the amount of effort. Assume that \( u'(\cdot) > 0, u''(\cdot) < 0, \phi'(\cdot) > 0, \) and \( \phi''(\cdot) < 0 \). Assume that the agent provides a meaningful interpretation only if the utility from deference exceeds a certain baseline ‘reserve’ utility \( \Pi \) that represents the utility the agent gains from shirking.

The court gains utility from the agent’s interpretation. The utility increases with the quality of the interpretation, but decreases with the amount of deference that the court must give. The utility function is \( V(q - d(q)) \), where \( q \) is the quality of the agent’s interpretation and \( w \) is the level of deference. The utility

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18 As argued in Eskridge & Baer, *supra* note 4.


20 See the appendix for details.
increases with the quality of the interpretation because a high quality interpretation makes it easier for the
court to make its own judgment. The utility decreases with the level of deference because deferring involves
ceding judicial power and creating the risk of accepting a poor interpretation. The utility function is such that
\( V'(\cdot) > 0 \), and \( V''(\cdot) < 0 \).

The optimization program then involves the court maximizing its utility subject to the constraints that (a) the
agent chooses a level of effort to maximize its utility and (b) the level of deference is sufficient for the agent to
participate (i.e. the agent's utility exceeds the threshold utility \( \bar{u} \)). This must hold across the distribution of \( q \).
This induces the following optimization program:

\[
\max_{(d(q), e)} \int_{q}^{\bar{q}} V[q - d(q)]f(e|q)\,dq
\]

Subject to:

\[
e \in \arg \max_{e} \left\{ \int_{q}^{\bar{q}} \gamma(e)u[d(q)]f(e|q)\,dq - \phi(e) \right\}
\]

\[
\bar{u} \leq \int_{q}^{\bar{q}} \gamma(e)u[d(q)]f(e|q)\,dq - \phi(e)
\]

4 Analysis

The analysis proceeds by first obtaining the optimal level of deference and then by analyzing how it depends
upon model-inputs.

4.1 Optimal Level of Deference

The analysis proceeds in several steps. First, obtain the first and second order conditions for the agent. The
first order condition mandates that the derivative of Equation (2) equals zero. The second order condition
mandates that the double derivative of Equation (3) is less than zero. This induces the following:
\begin{align*}
0 &= \int_{\underline{q}}^{\bar{q}} \{y(e)u[d(q)]f_{e}(q|e) + \gamma_{e}u[d(q)]f(q|e)\}dq - \phi'(e) \\
0 &> \int_{\underline{q}}^{\bar{q}} \{u[d(q)]y_{e}(e)f_{e}(q|e) + u[d(q)]y_{e}f_{e}(q|e) + u[d(q)]y_{ee}(e)f(q|e) \\
&+ u[d(q)]y_{e}(e)f_{e}(q|e)\}dq - \phi''(e) \tag{5}
\end{align*}

Second, leaving aside the second order condition, replace Equation (2) with Equation (4). The optimization program is then:

\[
\max_{\{d(q), e\}} \int_{\underline{q}}^{\bar{q}} V[q-d(q)]f(q|e)\,dq \tag{6}
\]

Subject to:

\begin{align*}
0 &= \int_{\underline{q}}^{\bar{q}} \{y(e)u[d(q)]f_{e}(q|e) + \gamma_{e}u[d(q)]f(q|e)\}dq - \phi_{e}(e) \tag{7} \\
\bar{u} &\leq \int_{\underline{q}}^{\bar{q}} y(e)u[d(q)]f(q|e)\,dq - \phi(e) \tag{8}
\end{align*}

Third, define the lagrangian as:

\[
\mathcal{L} = \int_{\underline{q}}^{\bar{q}} \{V[q-d(q)]f(q|e) + \lambda[y(e)u[d(q)]f(q|e) - \phi(e) - \bar{u}] \\
+ \mu[y(e)u[d(q)]f_{e}(q|e) + \gamma_{e}u[d(q)]f(q|e) - \phi_{e}]\}dq \tag{9}
\]

Fourth, differentiate Equation (9) with respect to \(d(q)\) to obtain the optimal level of deference as:

\[
\frac{V'[q-d(q)]}{u'[d(q)]} = \lambda y(e) + \mu \left\{y(e)f_{e}(q|e) + \gamma_{e}(e)\right\} \tag{10}
\]

This implies the following proposition:

**Proposition:** The optimal level of deference, \(d(q)\) is the level of deference that solves:
4.2 Comparative Statics

I make some comments about the optimal level of deference. The level of deference solves Equation (11)

\[
\frac{V'[q - d(q)]}{u'[d(q)]} = \lambda y(e) + \mu \left\{ y(e) \frac{f_e(q|e)}{f(q|e)} + y_e(e) \right\}
\]

The first corollary is that the level of deference decreases with \( y(e) \). That is, if the agency gains some utility from exerting effort, such as a `personal' utility for doing a good job, then there is less need to defer to the agency's interpretation. To see this, suppose that the court is risk-neutral such that \( V'[q - d(q)] = 1 \). Then, the level of deference must satisfy the following relation:

\[
\frac{1}{u'[d(q)]} = \lambda y(e) + \mu \left\{ y(e) \frac{f_e(q|e)}{f(q|e)} + y_e(e) \right\}
\]

If \( y(e) \) increases, then the right hand side increases. The left hand side (which is \( 1/u'[d(q)] \)) increases if \( d(q) \) decreases. Thus, if \( y(e) \) increases, then the optimal level of deference decreases. Thus, if the agency gains some utility from issuing a quality interpretation, then the court can defer less to the agency. The following proposition summarizes this prediction.

**Proposition:** The level of deference decreases with \( y(e) \). That is, the level of deference decreases if the agency gains utility from issuing a quality interpretation.

The second corollary is that the court should defer more to an interpretation that is more likely under a higher level of effort. The intuition is that the court wants to encourage the agency to issue high quality interpretations more frequently. However, for a given level of effort, there is a random distribution of qualities. Knowing this, and knowing that quality is a random variable, the court will base its decision on the probability that the particular interpretation-quality arises under a level of effort.

To see this, consider Equation (12). Assume that there are two levels of quality, high and low. Then Equation (11) becomes:
This implies that if a level of quality $q$ is more likely under a low level of effort than under a high level of effort, then $f(q|e_L) > f(q|e_H)$ such that $\frac{f(q|e_L)}{f(q|e_H)} > 1$, and the optimal level of deference decreases. Conversely, if the level of quality $q$ is more likely under a high level of effort then $f(q|e_L) < f(q|e_H)$ such that $\frac{f(q|e_L)}{f(q|e_H)} < 1$, and the court should assign a higher level of deference.

**Proposition:** The level of deference is higher if the quality level is more likely under a higher level of effort.

### 4.3 Special Cases

I consider the following special cases: A non-multiplicative agency utility, a purely multiplicative agency utility, a risk neutral court, and a risk-neutral agency.

#### 4.3.1 Non-multiplicative agency utility

The main special case that I consider is where there is a constant of multiplication equal to one. That is, $\gamma(e) =$

$$
\max_{d(q),e} \int_q V[q - d(q)]f(q|e)dq
$$

Subject to:

$$
e \in \arg \max \left\{ \int_q \gamma(e)u[d(q)]f(q|e)dq - \phi(e) \right\}
$$
The analysis proceeds in several steps.

First, obtain the first and second order conditions for the agent. The first order condition mandates that the derivative of Equation (15) equals zero. The second order condition mandates that the double derivative of Equation (15) is less than zero. This induces the following:

\[
\int_q \gamma(q) u[d(q)] f(q|e) dq - \phi(e) = 0
\] (17)

\[
\int_q u[d(q)] f_e(q|e) dq - \phi''(e) < 0
\] (18)

Second, leaving aside the second order condition, replace Equation (15) with Equation (17). The optimization program is then:

\[
\max_{(d(q), e)} \int_q V[q - d(q)] f(q|e) dq
\] (19)

Subject to:

\[
0 = \int_q \gamma(q) u[d(q)] f_e(q|e) dq - \phi'(e)
\] (20)

\[
\bar{u} \leq \int_q \gamma(q) u[d(q)] f(q|e) dq - \phi(e)
\] (21)

Third, define the Lagrangian as:

\[
L = \int_q [V[q - d(q)] f(q|e) + \lambda [u[d(q)] f(q|e) - \phi(e)] - \bar{u}] + \mu [u[d(q)] f_e(q|e) - \phi_e] dq
\] (22)
Fourth, differentiate Equation (22) with respect to $d(q)$ to obtain the optimal level of deference, as follows:

$$\frac{V'[q - d(q)]}{u'[d(q)']} = \lambda + \mu \frac{f_e(q|e)}{f(q|e)}$$

(23)

4.3.2 Purely multiplicative agency utility

This section considers the situation where the agency's utility is purely multiplicative. That is, takes the form $u[d(q)]\gamma(e)$. The optimization program takes the form:

$$\max_{\{d(q), e\}} \int_{q}^{\tilde{q}} V[q - d(q)]f(q|e)\,dq$$

(24)

Subject to:

$$e \in \arg\max_e \left\{ \int_{q}^{\tilde{q}} \gamma(e)u[d(q)]f(q|e)\,dq \right\}$$

(25)

$$\bar{u} \leq \int_{q}^{\tilde{q}} \gamma(e)u[d(q)]f(q|e)\,dq$$

(26)

This implies that the Lagrangian is of the form:

$$\mathcal{L} = \int_{q}^{\tilde{q}} \left\{ V[q - d(q)]f(q|e) + \lambda \gamma(e)u[d(q)]f(q|e) - \bar{u} \right\}\,dq$$

$$+ \mu \left\{ \gamma(e)f_e(q|e) + \gamma_e(e)u[d(q)]f(q|e) \right\}\,dq$$

(27)

Thus, the optimal level of deference is:

$$\frac{V'[q - d(q)]}{u'[d(q)']} = \lambda \gamma(e) + \mu \left\{ \gamma(e)\frac{f_e(q|e)}{f(q|e)} + \gamma_e(e) \right\}$$

(23)
This implies that the non-multiplicative cost term does not directly influence the optimal level of deference. Instead, the multiplicative term $\gamma(e)$ has a more direct influence over the deference level.

### 4.3.3 Risk neutral court

This section lets the court be risk neutral. That is, the court’s utility function is $V = q - d(q)$. This implies that $V_{d(q)} = -1$. Therefore, the optimal level of deference is the level $d(q)$ that satisfies:

$$\frac{1}{u'[d(q)]]} = \lambda \gamma(e) + \mu \left\{ \gamma(e) \frac{f_e(q|e)}{f(q|e)} + \gamma_e(e) \right\}$$

(29)

The main difference between Equation (29) and Equation (11) is the rate at which the level of deference increases with both (1) $\gamma(e)$, and (2) the hazard rate $f_e(q|e)/f(q|e)$. Specifically, if the court is risk-neutral, then the agency obtains a higher level of deference. To see this, the left hand side in Equation (11) is $\frac{V'[q-d(q)]}{u'[d(q)]}$ whereas the left hand side in Equation (29) is $1/u'[d(q)]$. Here, if $d(q)$ increases, then $1/u'[d(q)]$ decreases at a faster rate than does $V'[q-d(q)]/u'[d(q)]$. Therefore, if the court is risk neutral then the court is less sensitive to the level of effort implied by a given interpretation-quality, and the level of deference and decreases less with $\gamma(e)$.

### 4.3.4 Risk neutral agency

This section lets the agency be risk neutral. Thus, $u'[d(q)] = 1$. This implies that the optimal level of deference satisfies the following relation:

$$V'[q - d(q)] = \lambda \gamma(e) + \mu \left\{ \gamma(e) \frac{f_e(q|e)}{f(q|e)} + \gamma_e(e) \right\}$$

(30)

If $V'$ is invertible with inverse denoted $(V')^{-1}$, then:

$$d(q) = q - (V')^{-1} \left[ \lambda \gamma(e) + \mu \left\{ \gamma(e) \frac{f_e(q|e)}{f(q|e)} + \gamma_e(e) \right\} \right]$$

(31)
This relationship suggests that the level of deference \( d(q) \) increases linearly with the quality of the interpretation. Further, comparing Equation (30) with Equation (29); \( V'[q - d(q)] > \frac{v'[q-d(q)]}{u'[d(q)]} \) because \( u'[d(q)] \) increases with \( d(q) \). Subsequently, if the agency is risk-neutral, then the level of deference decreases faster with \( \gamma(e) \) and is more sensitive to the effort-level implied by the quality of the interpretation.

5 Conclusion

This paper models the optimal level of deference. Prior literature has conducted some empirical and theoretical analysis; however, has not analyzed a situation where there is a continuum of deference levels or where the court has ultimate discretion over the level of discretion. This paper fills the gap in the literature.

I model a situation where the court must decide how much to defer to the agency's interpretation of the statute. The court wants to encourage the agency to exert a high amount of effort. However, the court cannot observe the agency's level of effort and only observes the final ‘quality’ of the interpretation. The court gains utility from high quality agency interpretations but loses utility from deferring. The agency gains utility from deference but loses utility from effort.

The model shows that the optimal level of deference depends on the utility function of the courts and the agencies, and the probability distribution of the agency's interpretations. The model indicates that the court should give a higher level of deference to agency-interpretations that are more likely if the agency exerts high levels of effort (and are less likely if the agency exerts low levels of deference). These findings help to guide judicial decision-making and the interaction between agencies and courts.

6 Appendix

This section details a situation where the court learns from the quality of the agency’s prior interpretations. I assume that the current case is the \( n^{th} \) interaction with the agency (i.e. there were \( n - 1 \) prior interactions). In this case, the court aims to maximize the utility from the \( n^{th} \) interpretation. I let \( q_n \) denote the quality of the \( n^{th} \) interpretation and \( Q_{n-1} = \{q_1, ..., q_{n-1}\} \) represent the set of the prior \( n - 1 \) qualities. Similarly \( e_n \) is the effort exerted on the \( n^{th} \) interpretation. I assume that all interpretation-qualities follow the same conditional density function \( f(q|e_n) \). The optimization program is:

\[ (32) \]
The Lagrangian is then:

\[
L = \int_q \{ V[q_n - d(q_n, Q_{n-1})] f(q|e_n) + \lambda [y(e_n) u[d(q_n, Q_{n-1})] f(q|e_n) - \phi(e_n) - \bar{u}] \\
+ \mu [\gamma(e_n) u[d(q_n, Q_{n-1})] f_{e_n}(q|e_n) + \gamma_{e_n}(e_n) u[d(q_n, Q_{n-1})] f(q|e_n) - \phi_{e_n}(e_n)]\} dq
\]

Now, differentiate with respect to \(d(q_n, Q_{n-1})\) to obtain:

\[
\frac{V'[q - d(q_n, Q_{n-1})]}{u'[d(q_n, Q_{n-1})]} = \lambda y(e_n) + \mu \left\{ \gamma(e_n) \frac{f_{e_n}(q|e_n)}{f(q|e_n)} + \gamma_{e_n}(e_n) \right\}
\]

This means that while the availability of prior interpretations does influence the level of deference, it does not qualitatively change the nature of the optimization program or of the solution.

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