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APPLYING BAYES REASONING ON DISCRIMINATION DETECTION

Shuxuan Luo*

Abstract: This research highlights the crucial role of discrimination detection in effectively implementing anti-discrimination laws. Our main goal is to advocate for the use of Bayesian reasoning as a powerful method for detection, providing a clear mathematical definition for lawyers. We emphasize the benefits of employing Bayesian reasoning in a legal context, such as addressing the Prosecutor's Fallacy, considering evidence dependencies, and accounting for hidden assumptions like "common sense." To apply Bayesian principles, we carefully examine variables aligned with anti-discrimination laws like the Civil Rights Act of 1964 and the Americans with Disabilities Act. These laws encompass important areas such as race, gender, religion, and disability. Following the guidance of the Community Relations Service's resource guide, we collect variables related to protected characteristics, plausible discrimination scenarios, and indicators of reasonable accommodations. Our approach aims to present a well-rounded framework for discrimination detection rooted in Bayesian reasoning, meeting legal requirements and acknowledging the complex nature of discrimination in society.

Keywords: Bayesian Reasoning; Discrimination Detection; Civil Rights; Data Collection; Statistics for Lawyers

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INTRODUCTION

To support the practical implementation of anti-discrimination laws, we propose a data-driven method for detecting potentially discriminatory circumstances. As Christine Mann Darden visualized the disparities between promoted male and female employees that won her a well-deserved promotion at NASA,[1] we can see the power of data as a tool to obtain new information and to observe existing trends that some of us are already experiencing while others are not yet aware of. In this paper, we advocate not only that we should cumulatively collect more informing data as guided and specified by relevant anti-discrimination laws, but also that we should analyze such data through the Bayesian way of thinking.

In a nutshell, Bayesian reasoning uses both past experiences and newly observed evidence to update our prior beliefs into posterior beliefs, and this updating process can happen repeatedly in light of continuously collected data, with the previously updated beliefs becoming the new priors.[2] Even with uncertain and inaccurate starting priors, the Bayesian property of "swamping the priors" can push the posteriors to converge to the same value when the observations are huge enough.[3] The point is that Bayes provides us a mechanism for repeatedly updating our inaccurate priors so as to reach a more accurate posterior. As the Bayesian approach requires us to consider all relevant data and thus "not just those which may appear to support our preconceptions," a huge advantage of applying Bayes is to encourage us analysts to "have an open mind."[4] Under a legal context, this advantage translates into less biased legal decisions because the Bayesian reasoning avoids misinterpretations and miscalculations, both of which have led to grave consequences in past legal cases, and because it can expose hidden assumptions regarding our common sense, the appropriate treatment of witness testimonies, and dependencies among pieces of evidence.

In the following paper, we first establish the mathematical basis of the Bayesian analysis for a foundational understanding of the approach. We then apply the derived formulas to real legal examples and explain the advantages of using Bayes under a legal context. Finally, we give a head start on applying the Bayesian reasoning to anti-discrimination laws by listing informing variables extracted from the Civil Rights Act of 1964, the Immigration Reform and Control Act of 1986, and the Americans with Disabilities Act. Such variables, though incomprehensive, include the protection of race and color, ethnicity, national origin, gender, religion, and disability in various scenarios focused on by the Community Relations Service.

I. THE BAYESIAN METHOD FOR LEGAL PROFESSIONALS

Finding the cause of the observed results has been one of the most important topics in practicing law, whether it be convicting the right person in criminal trials or identifying the complicated situations in which laws such as antidiscrimination laws

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[1] CATHERINE D'IGNAZIO & LAUREN F. KLEIN, DATA FEMINISM (2020).

[2] stochazesthai, *Answer to "What Exactly Does It Mean to and Why Must One Update Prior?,"* CROSS VALIDATED (2015), https://stats.stackexchange.com/a/166322 (last visited Sep 19, 2023).

[3] Allen B. Downey, *Think Bayes: Bayesian Statistics Made Simple*, 37 (2012), https://www.greenteapress.com/thinkbayes/thinkbayes.pdf (last visited Oct 9, 2023).

[4] Ajitesh Kumar, *Bayesian Thinking & Real-Life Examples*, ANALYTICS YOGI (Feb. 2, 2023), https://vitalflux.com/bayesian-thinking-real-life-examples/ (last visited Sep 19, 2023).

and technology laws have been implicitly breached. Such causal ties that judges, juries, and many other legal professionals are trying to determine involve whether the committer caused the evidence presented in trials and if any discriminatory behaviors caused the unjust situation of plaintiff. However, causal inference has not been an easy topic as we need to examine the strength of the proposed causal relationship, how rare the cause happens, and the many other plausible explanations to the observed effect. The Bayesian method provides a useful framework for legal professionals to perform causal inference because it accounts for all the above factors in a logical and coherent way. The Bayesian method would help legal professionals to move towards a more corrected answer while at the same time acknowledging the existence of uncertainty.

Suppose a two-stage experiment has been conducted. Bayes' Theorem essentially answers the question that, if we observed the outcome of the second stage, what the probability of a specific outcome of the first stage is.[5] However, since the first stage experiment had already occurred, some may immediately dismiss this Bayesian reasoning on the ground that the outcome of the first stage is an historical fact that should not be understood as a probability. The outcome, they may say, either happened or did not happen, and therefore should not be assigned a probability of anything in between.[6] In response to this philosophical conundrum, a Bayesian statistician would specify her definition of the probability of the outcome of interest in the first stage as the "uncertainty" regarding the occurrence of such outcome[7] from her own perspective. This narrow definition emphasizing one's own perspective is the reason why the Bayesian approach is often considered as a "subjectivist view of probability."[8] As the Bayesian approach provides a framework to quantify one's uncertainty, it's not surprising that it has been applied in legal proceedings, where the second stage is the evidence found and the first stage being whether the suspect committed the crime or whether any discrimination happened. While the outcome of whether the crime was committed by the suspect is a historical, fixed fact, we can see that trials and other legal measures are still being conducted to infer such outcome. Having shown the usefulness of Bayesian reasoning, we will derive Bayes' Theorem and its derivative forms below.

A. Bayes' Theorem

The Bayes' Theorem is itself a form of causal analysis, where it moves from being presented the evidence to calculating the plausibility of the proposed cause. We illustrate this foundational process with step-by-step details for legal professionals below.

Denote all possible outcomes of the first stage as A and A^c and all possible outcomes of the second stage as B and B^c. Suppose our outcome of interest is A, and we are given the result of the second stage to be B. By the "general conjunction rule," where we assume the dependencies between first and second stage and therefore use

[5] FRANCISCO J. SAMANIEGO, A COMPARISON OF THE BAYESIAN AND FREQUENTIST APPROACHES TO ESTIMATION 33 (2010), https://link.springer.com/10.1007/978-1-4419-5941-6 (last visited Aug 11, 2023).
[6] *Id.* at 34.
[7] *Id.*
[8] *Id.* at 35.

one to infer another, we obtain $P(A \cap B) = P(A) * P(B|A)$.[9] By the multiplication rule of conjunctional probabilities, $P(B) * P(A|B) = P(B \cap A) = P(A \cap B) = P(A) * P(B|A)$, from which we get the foundational form of Bayes' Theorem:

Equation 1

$$P(A|B) = \frac{P(A) * P(B|A)}{P(B)}$$

Applying this theorem to a crude process of legal decision-making, we write $\mathrm{P}(Guilty|Evidence) = \frac{P(Guilty)*P(Evidence|Guilty)}{P(Evidence)}$. We define $P(Guilty|Evidence)$ as *posterior probability*, posterior to the presentation of evidence, and $P(Guilty)$ as *prior probability*, prior to evidence.

B. Generalized Bayes: Multiple Possible Outcomes

We acknowledge the difficulty in directly applying the Bayes formula to real legal cases. We therefore divide up the formula into a generalized form with more individual pieces with the intention of providing a more specified thus more practical framework of applying the Bayes Theorem.

Building upon Equation 1, we now specify how to calculate $P(B)$ in a general form. Denote all possible outcomes of the first stage as $A_i,\ 1 \leq i \leq N$, and all possible outcomes of the second stage as $B_j,\ 1 \leq j \leq M$. Suppose our outcome of interest is A_i, and we are given the result of the second stage to be B_j.

Plugging into Equation 1, we first get $P(A_i|B_j) = \frac{P(A_i)*P(B_j|A_i)}{P(B_j)}$. As each outcome in the first stage may be associated with the outcome of B_j, we have the total probability of B_j to be $\sum_{k=1}^{N} P(A_k \cap B_j)$. By the "general conjunction rule,"[10] we get $P(B_j) = \sum_{k=1}^{N} P(A_k)P(B_j|A_k)$, a weighted average of conditional probabilities. We therefore obtain the generalized Bayes' Theorem:

Equation 2

$$P(A_i|B_j) = \frac{P(A_i) * P(B_j|A_i)}{\sum_{k=1}^{N} P(A_k)P(B_j|A_k)}$$

In Equation 2, considering the cases of A_k, where k does not equal to i, prompts the legal professionals to consider all plausible causes in terms of both their causal tie with the observed effect and the rarity of the causes themselves.

C. Likelihood Ratio

[9] Northern Kentucky University, *Probability*, https://www.nku.edu/~garns/165/ppt9_3.html (last visi ted Aug 12, 2023).
[10] *Id.*

Beside directly considering the probability of the evidence being caused by the proposed reason, a formula involving the likelihood ratio gives the legal professionals an alternative method that evaluates the hypothesis of a defendant being guilty against the standard case in which a defendant is assumed not guilty. We illustrate this calculation of the "odds" below.

We define the likelihood ratio (LR) as $\frac{P(Evidence|Guilty)}{P(Evidence|NotGuilty)}$. We now prove that $posterior\ odds = prior\ odds * LR$:

Given: $posterior\ odds = \frac{P(G|E)}{P(NG|E)}$, $prior\ odds = \frac{P(G)}{P(NG)}$, $LR = \frac{P(E|G)}{P(E|NG)}$

Proof: By Equation 1, $\frac{P(E|G)}{P(E|NG)} = \frac{P(E)*P(G|E)}{P(G)} * \frac{P(NG)}{P(E)*P(NG|E)} = \frac{posterior\ odds}{prior\ odds}$.

Therefore, we get

Equation 3

$$\frac{P(G|E)}{P(NG|E)} = \frac{P(G)}{P(NG)} * \frac{P(E|G)}{P(E|NG)}$$

$P(E|G)$ is called "prosecution likelihood" while $P(E|NG)$ is called "defense likelihood."[11]

Mathematically, this ratio determines how much and in what direction the evidence updates the prior odds. If the ratio is bigger than one, then the evidence made the odds of guiltiness higher. If less than one, then lower. If equal to one, then the evidence made no meaningful updates on the uncertainty of a suspect's guiltiness. The LR, as characterized by Fenton et al., "is therefore an important and meaningful measure of the probative value of evidence."[12]

D. Bayes' Theorem with a Conjunction of Evidence

Finally, we expand our one-effect scenario into the situation with multiple effects. As the legal cases always involve multiple pieces of evidence, we believe this adaptation would be more relevant for legal professionals.

Define $P[G|(E_1 \cap E_2)]$ as the probability of a suspect being guilty given two pieces of evidence. By the general conjunction rule, $P[G|(E_1 \cap E_2)] = \frac{P(G \cap E_1 \cap E_2)}{P(E_1 \cap E_2)} = \frac{P((G \cap E_1) \cap E_2)}{P(E_2)*P(E_1|E_2)} = \frac{P(E_2)*P((G \cap E_1)|E_2)}{P(E_2)*P(E_1|E_2)} = \frac{P((G \cap E_1)|E_2)}{P(E_1|E_2)}$. We therefore obtain:

[11] Norman Fenton, Martin Neil & Daniel Berger, *Bayes and the Law*, 3 ANNU REV STAT APPL 51 (2016), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4934658/ (last visited Aug 11, 2023).
[12] *Id.*

Equation 4

$$P[G|(E_1 \cap E_2)] = \frac{P\big((G \cap E_1)|E_2\big)}{P(E_1|E_2)}$$

Equation 4 shows a formula for evaluating two pieces of evidence. We are aware that this formula is still crude in the sense that a directly applicable formula would involve many more pieces of observed effects, and in turn would be too complicated to be specified by hand. However, as noted by Fenton et al., there is technology available—the "Bayesian network algorithms"—that is advanced enough to deal with multiple causes and multiple effects and thus to perform comprehensive Bayesian causal analysis.[13]

E. Bayesian Causal Inference

Bayesian reasoning is a powerful method that can greatly enhance the process of discrimination detection because of its ability to iteratively and logically infer unlawful discrimination, the cause, based on the increasingly available evidence, its effects.

Applying Bayes' Theorem in Equation 1, we see that inferring discrimination given the evidence requires two components—the prior, $P(Discrimination)$, and the standardized probability of the evidence assuming discrimination as the cause, $\frac{P(Evidence|Discrimination)}{P(Evidence)}$. The first component exposes our prior belief, often referred to as our implicit bias, and therefore can help us "recognize when that bias may be inappropriate or even misleading."[14] The prior belief about the general prevalence of discrimination in our society is the base rate to be corrected by the presentation of evidence. The second component, which can be expanded into $\frac{P(Evidence|Discrimination)}{P(Evidence|Discrimination)*P(Discrimination)+P(Evidence|OtherCause1)*P(OtherCause1)+\cdots}$ according to Equation 2, requires a thorough evaluation of both how strong the causal tie between discrimination and the evidence is as well as "the likelihood that the evidence might be explained by something other than [the] preferred hypothesis."[15] In other words, the numerator calculates the probability that a discriminatory behavior would consequently lead to the evidence, while the denominator of the standardized likelihood incorporates the true positives and the false positives. Considering the false positive cases is particularly useful because there can be many explanations other than discrimination that caused the existence of the evidence, and if this is the case, then using the evidence to conclude discrimination would not constitute a strong inference. The two components together form the Bayesian method of inferring the underlying cause of unlawful discrimination. In addition, the base rate can be iteratively corrected as new evidence appears by plugging in the posterior rate calculated in the previous iteration. In Chilson's words, the Bayesian reasoning's foundational logic is that "new evidence can always help refine a prediction… [as] we absorb [them] in rigorous and

[13] *Id.*
[14] Neil Chilson, *Bayesian Analysis as a Framework for (Legal) Thinking*, GEORGETOWN LAW TECHNOLOGY REVIEW (2016), https://georgetownlawtechreview.org/bayesian-analysis-as-a-framework-for-legal-thinking/GLTR-11-2016/ (last visited Oct 26, 2023).
[15] *Id.*

principled ways while recognizing that 100% certainty is rarely, if ever, warranted."[16]

II. THE ADVANTAGES OF APPLYING THE BAYESIAN REASONING UNDER A LEGAL CONTEXT

A. Avoiding Misinterpretations

The frequentist approach, a method of inference using a hypothesis test that involves concepts of the p-value and the confidence interval, is primarily used in legal proceedings.[17] However, interpreting p-values and confidence intervals correctly is quite challenging. In fact, a p-value, which calculates "the probability of observing the evidence given a hypothesis" $P(E|NG)$, "is often wrongly interpreted as being the same as the probability of the hypothesis given the evidence" $P(NG|E)$.[18] From Equation 1, we can quickly see why Bayes' Theorem can always properly avoid equating a pair of reversed conditional probabilities. The frequentist approach to hypothesis testing is also problematic because its confidence intervals "are almost invariably misinterpreted since their proper definition is both complex and counter-intuitive."[19] More specifically, a single 95% confidence interval cannot be interpreted as having a 95% chance of covering the true value of a parameter. Instead, the construction of 95% confidence intervals involves repeatedly calculating the intervals under a valid setting, and the resulting sequence of confidence intervals has the property that, on average, 95% of those intervals cover the true value.[20] In other words, any correct interpretations regarding probabilities of containing the true value in confidence intervals must involve "a long sequence of [such] intervals computed [repeatedly] from valid models," while we cannot quantify such probabilities in "any single [realized] confidence interval."[21] On the other hand, the Bayes version of an interval quantifying uncertainties, called a credible interval, has a much simpler interpretation where a single 95% interval calculated from one sample data has "a 95% probability that the true estimate would lie within [this] interval."[22] In seeking the probability of the true value being contained within a specific interval, we should thus calculate a Bayesian credible interval instead of a frequentist confidence interval.

In the context of legal proceedings, misinterpreting p-values to be $P(NG|E)$ when it should mean $P(E|NG)$, under the null hypothesis of not guilty, constitutes the "statistical reasoning error" of the Prosecutor's Fallacy.[23] In other words, "the chance of a rare event happening" does not equal to and cannot be used to infer "the chance of

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[16] *Id.*
[17] Fenton, Neil, and Berger, *supra* note 12.
[18] *Id.*
[19] *Id.*
[20] Sander Greenland et al., *Statistical Tests, P Values, Confidence Intervals, and Power: A Guide to Misinterpretations*, 31 EUR J EPIDEMIOL 337 (2016), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4877414/ (last visited Aug 18, 2023).
[21] *Id.*
[22] Luiz Hespanhol et al., *Understanding and Interpreting Confidence and Credible Intervals aroun d Effect Estimates*, 23 BRAZ J PHYS THER 290 (2019), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6630113/ (last visited Aug 18, 2023).
[23] Bayes' Theorem in the Court – the Prosecutor's Fallacy : Networks Course blog for INFO 2040 /CS 2850/Econ 2040/SOC 2090, https://blogs.cornell.edu/info2040/2018/11/28/bayes-theorem-in-the-court-the-prosecutors-fallacy/ (last visited Aug 18, 2023).

a suspect's innocence."[24]

The infamous example where this fallacy was presented in a seemingly convincing argument that resulted in the wrong conviction of the defendants is People v. Collins.[25] In this case, a mathematician demonstrated an extremely low probability of possessing all characteristics described by the witnesses by applying the "product rule" to the estimated probabilities of each of the characteristic. Given the "one chance in 12 million" probability of observing a couple fulfilling all distinctive characteristics, the rarity of evidence was used to infer that "there could be but one chance in 12 million that defendants were innocent."[26] By using the low probability of observing the evidence, or a low "defense likelihood,"[27] to infer a low probability of innocence, it's clear here that the Prosecutor's Fallacy has been committed.

The Sally Clark Case is another infamous example demonstrating the Prosecutor's Fallacy. After Clark's first baby, Christopher, died, her second baby Harry died within two years. It was initially argued that "two unexplained infant deaths (SIDS deaths) are extremely rare in a family such as the Clarks."[28] Specifically, the probability was calculated to be "1 in 75 million."[29] However, as pointed out in the article by the Center for Statistics and Applications in Forensic Evidence (CSAFE), "saying that there is a 1 in 73 million chance that the babies died of SIDS is not the same as saying that there is a 1 in 73 million chance that the mother did not kill them."[30]

The Bayesian thinking can effectively prevent the occurrence of the Prosecutor's Fallacy, both by directly pointing out the difference between a set of reversed conditional probabilities shown in Equation 1, and by introducing the Likelihood Ratio shown in Equation 3 that enables the jury and jurors to evaluate the probative value of a piece of evidence based on both sides of stories. In Sally Clark's case, it was later calculated that "the probability that two infants [being] murdered in the same household is just 1 in 2 billion," reducing the odds of Clark being guilty down to only "4%," meaning that it's "much more likely (about 95% more likely) that the babies died of SIDS than that they were murdered by their mother."[31] As advocated by the CSAFE, "all parties must remember that there are always two sides to the story… [we] need to consider that probability of the evidence under the two competing hypotheses: the suspect is guilty or the suspect is not guilty."[32] What the Center presented in its calculation is exactly a Bayesian argument involving the Likelihood Ratio.

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[24] scarraher, *Misuse of Statistics in the Courtroom: The Sally Clark Case*, CENTER FOR STATISTICS AND APPLICATIONS IN FORENSIC EVIDENCE (Feb. 16, 2018), https://forensicstats.org/blog/2018/02/16/misuse-statistics-courtroom-sally-clark-case/ (last visited Aug 22, 2023).
[25] People v. Collins, JUSTIA LAW, https://law.justia.com/cases/california/supreme-court/2d/68/319.html (last visited Aug 18, 2023).
[26] *Id.*
[27] Fenton, Neil, and Berger, *supra* note 12.
[28] scarraher, *supra* note 25.
[29] *Id.*
[30] *Id.*
[31] *Id.*
[32] *Id.*

B. Preventing Miscalculations

Miscalculations stemming from a failure to consider dependencies between different pieces of evidence is also a source to injustices in legal proceedings. The frequentists, by restricting its Product Rule into only calculating conjunctional probabilities of independent events,[33] acknowledge that the conjunctional probabilities of events whose occurrences influence each other are different from those of independent events. However, the frequentists' Product Rule has been inappropriately applied in courtrooms when treating multiple pieces of evidence, leading to miscalculations of probabilities that in turn resulted in unjust trial decisions.

Going back to the People v Collins example, another fatal statistical error pointed out in the appeal decision is "an inadequate proof of the statistical independence of the six factors" (namely, the inter-racial couple, beard, mustache, etc.).[34] The lack of a solid proof of mutual independence between pairs of factors makes the application of the Product Rule baseless and the results produced "erroneous and exaggerated."[35] The same type of miscalculation also occurred in the Sally Clark example, where the "1 in 75 million" estimate came from squaring the UK's crime statistics of "1 in 8500" "incidence of SIDS in the UK… in middle-class families with no known risk factors."[36] The square calculation came from applying the Product Rule, and we therefore can see the implicit assumption of the independence between the two deaths. However, there is no sound basis to assume the two deaths to be random events, as there have been several studies that "showed recurrence rates [of cot death to be] about five times the general rate,"[37] implying a higher probability of the second death given the first death.

The Bayesian approach, by calculating conditional probabilities, ensures the consideration of dependencies between events, and thus would by default avoid miscalculations due to wrong assumptions on independence. More specifically, by Equation 4, the term in the dominator, $P(E_1|E_2)$, would force the statistician to ponder upon the relationship between the two pieces of evidence.

C. Exposing Hidden Assumptions

A fixed rule of probabilities is that a conjunction of events always has a probability lower than or equal to that of each of the events, as illustrated in the famous "Linda the banker" example.[38] This rule gives rise to what Cohen called a "paradox" that leads to "inconsisten[cies]" between "probabilistic reasoning" and "legal reasoning."[39] More concretely, Cohen gave an example of two witnesses who independently provided their piece of evidence of witnessing events A and B, respectively. Assuming both witnesses to be pretty reliable, quantified with a

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[33] Northern Kentucky University, *supra* note 10.
[34] People v. Collins, *supra* note 26.
[35] *Id.*
[36] scarraher, *supra* note 25.
[37] Stephen J Watkins, *Conviction by Mathematical Error?*, 320 BMJ 2 (2000), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117305/ (last visited Aug 22, 2023).
[38] Yong Lu, *The Conjunction and Disjunction Fallacies: Explanations of the Linda Problem by the Equate-to-Differentiate Model*, 50 INTEGR PSYCHOL BEHAV SCI 507 (2016), https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4967104/ (last visited Sep 1, 2023).
[39] Fenton, Neil, and Berger, *supra* note 12.

probability of $P(A) = P(B) = 0.7$, the resulting conjunctional probability of $P(A\&B)$ is reduced to only 0.49.[40] From the probability figures, we obtained a result that mathematically makes the suspect seem less guilty. However, from a legal perspective, the two independent, pretty reliable witnesses both testifying against the defendant should have positively supported the prosecutor's side. To reconcile the probabilistic and the legal reasonings, the use of Bayesian analysis can solve the above inconsistency by carefully accounting for more, if not all, of the hidden assumptions.

The problem with the above paradox lies in a direct translation of the witnesses' reliability into the probability of each event, even though such probability depends both on the reliability of the witnesses and on whether each event actually happened.[41] Consider the following example illustrated by Dawid. Witness 1 testified that "the sun rose today," while witness 2 testified that "the sun moved backwards through the sky today." By common sense, "we would, after hearing [those] testimony[ies], generally take the [probability of the first event to be] close to 1 and [that of the second event to be] close to 0," "irrespective of the general reliability of the witness."[42] In other words, even if witness 2 has a good record of telling the truth and thus has a reliability of 70%, one would still tend to believe that witness 2 made a wrong observation, meaning to assign the probability of the sun moving backwards to be close to zero. This example shows that the process through which we assign a probability to each piece of evidence is that we first have a baseline set by the common sense, and then we adjust the baseline probability based on witness testimonies. Using the Bayesian language, the baseline is a prior probability, and final probability of evidence is the posterior probability affected by both the prior and the reliability of the testimony.

The Bayesian approach accounts for the above three elements. Specifically, by applying Equation 3 onto individual pieces of evidence, we can write

Equation 5

$$\frac{P(A|a)}{P(A^C|a)} = \frac{P(A)}{P(A^C)} * \frac{P(a|A)}{P(a|A^C)},$$

where a is the presented testimony, A denotes that event A happened, and A^C denotes that event A did not happen. By characterizing the reliability of a witness in the Likelihood Ratio term, we reach a more intuitive interpretation of the reliability of a witness as "the probability that [the witness] will testify correctly, conditional on the true state of affairs."[43] Following Dawid's steps, we reconstruct Cohen's problem below.

Given that the witness is 70% reliable. Then $P(a|A) = 0.7$, and $P(a|A^C) = 1 - P(a|A) = 0.3$. Assign the prior $P(A)$ to have the probability of p, then $P(A^C) = 1 - p$. Plugging into Equation 5, we get $\frac{P(A|a)}{1-P(A|a)} = \frac{p}{1-p} * \frac{0.7}{0.3}$, which then can be simplified into

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[40] *Id.*
[41] *Id.*
[42] A. P. Dawid, *The Difficulty About Conjunction*, 36 JOURNAL OF THE ROYAL STATISTICAL SOCIETY. SERIES D (THE STATISTICIAN) 91, 93 (1987), https://www.jstor.org/stable/2348501 (last visited Aug 28, 2023).
[43] *Id.*

$P(A|a) = \frac{7p}{3+4p}$. The posterior equals the reliability of the witness only if the prior p equals $\frac{1}{2}$. We now proceed to a conjunction of two pieces of evidence, a and b, for two events A and B. Suppose the two independent witnesses are each 70% reliable. That is, $P(a|A) = P(a^C|A^C) = P(b|B) = P(b^C|B^C) = 0.7$. Assuming events A and B are two independent events whose priors are both $\frac{1}{2}$, so as to recover Cohen's calculation of $P(A\&B|a\&b) = 0.49$. However, the evidence a and b actually increased the probability of guilt, from a starting point of the prior being $P(A\&B) = \frac{1}{2} * \frac{1}{2} = 0.25$.[44]

Applying Bayes' formula requires answers to questions of what our common sense is, what the precise relationship between the testimony and the event actually happening is, and whether or not the pieces of evidence are independent. All of those questions were not attended to and in turn implicitly assumed without a Bayesian analysis, thus driving to a seemingly inconsistent point between the fields of statistics and law. Bayes forces us to expose the above hidden assumptions, and therefore gives us more opportunities to face and in turn correct the biases in our reasonings. Recognizing the Bayesian reasoning's ability to incorporate implicit prior beliefs, we, together with many others, see the potential of applying Bayes in the area of antidiscrimination, where statistical evidence commonly plays a role.[45]

III. DATA COLLECTION

Having established a foundational understanding of the Bayesian analysis and of its ability to expose hidden assumptions and thus potential biases, we consider Bayes reasoning a great tool for detecting potential discrimination cases. We now proceed to concrete plans on data collection, which itself would be a step towards a bigger plan involving Bayesian data analysis.

Data to be used for updating prior beliefs through the Bayesian process shall be collected based on the framework proposed by the Community Relations Service (CRS), the "peacemaker" agency of the U.S. Justice Department, that itself was established under the Title X of the Civil Rights Act of 1964.[46] More specifically, we shall test for any discriminations against race, gender, religion, and disability[47] under the contexts of employment, work environment harassment, accommodations to employment, government services, public transit, businesses, and telecommunication, if applicable.

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[44] . See also for a detailed calculation of the posterior probability when events A and B are not i ndependent, which is expected to be the usual case, by applying Equation 2. A special result achi eved is that the posterior has both a lower and upper bound, regardless of the prior. This result is consistent with the "swamping the priors" argument we presented in the introduction, in response to the criticism against the use of subjective priors in Bayes.

[45] Jason R Bent, *P-Values, Priors, and Procedure in Antidiscrimination Law*, 63 SSRN JOURNAL (2015), https://deliverypdf.ssrn.com/delivery.php?ID=932001119069127125016124029090113113046076048031004017071001066123027024102103001030124002121124043057052125120017103100010082106061094046072004084108120094067123095042050095006117104018007107124093006085104092123003080021102106077090111028006075110065&EXT=pdf&INDEX=TRUE (last visited Oct 29, 2023).

[46] Civil Rights Act (1964), NATIONAL ARCHIVES (2021), https://www.archives.gov/milestone-documents/civil-rights-act (last visited Sep 21, 2023).

[47] Michael L. Perlin & Valerie McClain, *"Where Souls Are Forgotten": Cultural Competencies, Forensic Evaluations, and International Human Rights.*, 15 PSYCHOLOGY, PUBLIC POLICY, AND LAW 257 (2009), http://doi.apa.org/getdoi.cfm?doi=10.1037/a0017233 (last visited Sep 14, 2023).

We identify the variables to be included cumulatively by probing through documents, as cited by CRS' resource guide, for each protected category below.

A. Race Discrimination

The race category, protected under the Civil Rights Act of 1964, includes race, color, national origin, and ethnicity.[48] By the U.S. Equal Employment Opportunity Commission's (EEOC) definition, race includes the race itself and the personal characteristics of "hair texture, skin color, [and] certain facial features," and color includes the "skin color complexion."[49] On the other hand, national origin and ethnicity include "[coming] from a particular country or part of the world," the "ethnicity or accent," or "appear[ing] to be of a certain ethnic background."[50] The "citizenship" and the "immigration status" aspects of national origin are also protected within the context of employment through the Immigration Reform and Control Act of 1986.[51] Finally, racial discrimination can occur due to an individual being "married to or associated with" a person of a certain race, color, national origin, or ethnicity.[52]

The scenarios in which discriminations against the race category are prohibited, as focused by the CRS resource guide, are "work situations," "harassment," and "employment policies," corresponding respectively to variables of "hiring, firing, pay, job assignments, promotions, layoff, training, fringe benefits, and any other term or condition of employment," "frequent or severe" remarks that result in a "hostile or offensive work environment," and "non-job-related [nor] necessary" employment policies that negatively impact a race category.[53]

E. Gender Discrimination

The gender category, also protected under the Civil Rights Act of 1964, has a wide variety of components that can be roughly summarized into "sex, gender, gender identity, and sexual orientation."[54] According to the CRS and the American Psychological Association, sex means a person's "biological status" that can be treated as a categorical variable of three levels—"male, female, or intersex." Gender refers to "the attitudes, feelings, and behaviors that a given culture associates with a person's biological sex," where "gender normative" means "behaviors that are compatible with cultural expectations" while "behaviors that are viewed as incompatible" are called "gender non-conformity." Gender identity means "a person's deeply-felt, inherent sense of being… [a] male, [a] female, or something else." A person whose gender identity does not match their sex is referred to as "transgender," while a matching person is called "cisgender." Finally, sexual orientation refers to "the sex of those to whom a person is sexually and romantically attracted," where "attraction to… one's own sex" is "gay or lesbian" while "attraction to… the other sex" is "heterosexual," and

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[48] *Id.* at 4.
[49] Race/Color Discrimination, US EEOC, https://www.eeoc.gov/racecolor-discrimination (last visite d Sep 14, 2023).
[50] National Origin Discrimination, US EEOC, https://www.eeoc.gov/national-origin-discrimination (last visited Sep 14, 2023).
[51] *Id.*
[52] Race/Color Discrimination, *supra* note 50; National Origin Discrimination, *supra* note 51.
[53] Race/Color Discrimination, *supra* note 50; National Origin Discrimination, *supra* note 51.
[54] Perlin and McClain, *supra* note 48 at 4.

"attraction to members of both sexes" is "bisexual."[55] As the CRS resource guide does not include additional scenarios in which the gender category is protected, our scenario variables remain the same.

F. Religion Discrimination

As the Title VII of the Civil Rights Act of 1964 defines religion in a very broad way to include not only the "organized religion such as Christianity, Judaism, Islam, Hinduism, Sikhism, and Buddhism" but also the "sincerely held religious, ethical or moral beliefs" that are "new, uncommon," or even "that seem illogical or unreasonable to others,"[56] it's difficult to have a comprehensive list of variables to be measured under the religion category. In addition, the Supreme Court has decided that "it is not a court's role to determine the reasonableness of an individual's religious beliefs."[57] In an effort to be as inclusive as possible, we therefore treat "religion" as a binary variable without specifying the components under this category. We also include an association variable for the religion category as the Act also protects the person "[being] married to or associated with an individual of a particular religion."[58]

The scenarios focused by the CRS in which religion discrimination is prohibited are employment, workplace harassment, and accommodations to work. The employment variables, in addition to the ones listed under the race discrimination section, include segregation "such as assigning an employee to a non-customer contact position because of actual or feared customer preference," differential security requirements like demanding more extensive background checks for Muslims, and any forced religious activities as a condition of employment.[59] There's no additional variables for workplace harassment. Common workplace accommodations include "scheduling changes or leave for religious observances" and "dress and grooming practices."[60] The focus, however, is on the reasonableness of any requested accommodations, determined by the concept of "undue hardship," which is newly defined in the Supreme Court case *Groff v. DeJoy* as "more than a de minimis cost."[61] While the "undue hardship" is highly context dependent, some practical standards involve the "type of workplace," "nature of the employee's duties," "identifiable cost of the accommodation" with respect to the size and operating cost of the employer, "number of accommodated employees," workplace safety/ security requirement, "effect on workplace efficiency," and negative effects on coworkers or infringement of rights of other employees such as requiring others to "unwillingly do more than their share of potentially hazardous or burdensome work."[62] We integrate those indicating but non-decisive variables into our dataset in an effort to signal due responsibilities or

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[55] Key Terms and Concepts in Understanding Gender Diversity and Sexual Orientation Among St udents: (527502015-001), (2015), http://doi.apa.org/get-pe-doi.cfm?doi=10.1037/e527502015-001 (la st visited Sep 14, 2023); Perlin and McClain, *supra* note 48.
[56] Section 12: Religious Discrimination, US EEOC (2021), https://www.eeoc.gov/laws/guidance/sec tion-12-religious-discrimination (last visited Sep 14, 2023).
[57] *Id.*
[58] Religious Discrimination, US EEOC, https://www.eeoc.gov/religious-discrimination (last visited Sep 14, 2023).
[59] *Id.*; Section 12, *supra* note 57.
[60] Religious Discrimination, *supra* note 59.
[61] Section 12, *supra* note 57.
[62] *Id.*

potentially undue hardships for employment accommodations.

D. Disability Discrimination

The disability category, protected under the Americans with Disabilities Act (ADA),[63] has three components: 1) the actual disability, defined as "a physical or mental impairment that substantially limits one or more major life activities,"[64] where major life activities include "caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working" [65] while being "substantially limited" is taken to mean that major life activities "are restricted in the manner, condition, or duration in which [such activities] are performed in comparison with most people,"[66] 2) a "history or record" of disability,[67] 3) is "perceived by others" as having disabilities.[68] The actual disabilities include but are not limited to "cancer, diabetes, post-traumatic stress disorder, HIV, autism, cerebral palsy, deafness or hearing loss, blindness or low vision, epilepsy, mobility disabilities such as those requiring the use of a wheelchair, walker, or cane, intellectual disabilities, major depressive disorder, [and] traumatic brain injury."[69] To be inclusive and flexible, we apply the strategy used under the religion category to again treat the "actual disability," "record of disability," and "regarded as having disability" variables to be binary instead of creating an incomprehensive list of specific types of disability.

Much more scenarios, in addition to workplace discriminations, are focused on by the CRS resource guide under the disability category. The major five areas are: employment, state and local government services, public transit, businesses that are open to the public, and telecommunications.[70]

Title I of the ADA protects both a person with disabilities and a person associated with an individual of disability under the context of employment, [71] following a similar three-part structure of aspects of employment, workplace harassment, and accommodations to work. The aspects of employment and harassment both involve the same variables listed before. Common accommodations include but are not limited to "making the workplace accessible for wheelchair users, providing a reader or interpreter for someone who is blind or hearing impaired, [and] making a schedule change."[72] The focus of disability accommodations is also on whether there's any "undue hardships," the standard of which, however, is defined to be "requiring significant difficulty or expense" [73] that is much higher than that of religious

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[63] Perlin and McClain, *supra* note 48 at 5.
[64] Introduction to the Americans with Disabilities Act, ADA.GOV (2023), https://www.ada.gov/topics/intro-to-ada/ (last visited Sep 14, 2023).
[65] COMMONLY ASKED QUESTIONS ABOUT THE AMERICANS WITH DISABILITIES ACT AND LAW ENFORCEMENT, https://archive.ada.gov/q&a_law.htm (last visited Sep 14, 2023).
[66] *Id.*
[67] Introduction to the Americans with Disabilities Act, *supra* note 65.
[68] *Id.*
[69] *Id.*
[70] *Id.*
[71] Disability Discrimination and Employment Decisions, US EEOC, https://www.eeoc.gov/disability-discrimination-and-employment-decisions (last visited Sep 14, 2023).
[72] *Id.*
[73] 42 USC 12111: Definitions, https://uscode.house.gov/view.xhtml?req=(title:42%20section:12111%20edition:prelim) (last visited Sep 23, 2023).

accommodations.[74] The undue hardships for disability accommodations are also context specific, with the indicating but non-decisive variables of "the nature and cost of the accommodation needed," "the overall financial resources of the facility," "the overall size of the business" with respect to "the number, type, and location of its facilities" and "the number of its employees," and "the composition, structure, and functions of the workforce."[75] We treat those factors the same way as the indicating variables for undue hardships for religious accommodations by integrating them into our dataset for signaling purposes. One thing to note is that disability accommodations are only required for individuals with "actual disability" or a "record of" disability, but not for the ones who are "regarded as" having disabilities.[76]

The second scenario in which disability discriminations are protected against by the ADA is the state and local government services,[77] which include "all programs, services, or activities of public entities, from adoption services to zoning regulation."[78] In a similar vein, the major aspect that the public entities need to focus on for disability nondiscrimination is the "reasonable modifications" of policies and procedures for accommodation.[79] Such accommodations are guided under the principle of "equal [or further] treatment" that provides people with disabilities a "fair and equal opportunity to participate" in public services.[80] The "reasonableness," on the other hand, limits any modifications as to not "altering the nature of a program, service, or activity" and to not posing "objective, actual risk[s]" that impede the "safe operation" of the activity.[81] We use the "reasonableness of service" variable to determine the applicability of otherwise required accommodations.

Several specific accommodations required by the ADA, all limited by the "reasonableness" standard, are policies addressing 1) service animals, defined to be "a dog that has been… trained to… perform [related] tasks for an individual with a disability" and 2) wheelchairs and other power-driven mobility devices, and practices of how to 3) communicate with people who have disabilities. Public entities must allow "service animals" and "mobility devices" designed primarily for people with disabilities into all areas where the public is allowed to go. Factors of whether to allow other mobility devices include "type, size, weight, dimensions, and speed of the device," "volume of pedestrian traffic," "facility's design and operational characteristics," "legitimate safety standards," and "risk of serious harm to the environment or natural or cultural resources." We use the above variables to signal "appropriate mobility devices" that are also required to be allowed in public entities. Finally, the ADA requires public entities to "take the steps necessary to communicate effectively" with people who have disabilities, where the steps must be "practical" but can be "flexible" to "fit the circumstances" of "the nature, length, and complexity of the communication as well as the person's normal method(s) of communication." We use those factors to decide

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[74] Section 12, *supra* note 57.
[75] 42 USC 12111: Definitions, *supra* note 74.
[76] 29 CFR § 1630.9 - Not making reasonable accommodation., LII / LEGAL INFORMATION INSTITUTE, https://www.law.cornell.edu/cfr/text/29/1630.9 (last visited Sep 23, 2023).
[77] Introduction to the Americans with Disabilities Act, *supra* note 65.
[78] ADA Update: A Primer for State and Local Governments, ADA.GOV (2023), https://www.ada.gov/resources/title-ii-primer/ (last visited Sep 14, 2023).
[79] *Id.*
[80] *Id.*
[81] *Id.*

the value for the binary variable "effective communication."[82]

The third scenario of disability nondiscrimination, also protected under the Title II of the ADA addressing public services, is "public transit." The available general requirement is that the public transit systems must provide "an equal opportunity [for people with disabilities] to benefit from their services."[83] The fourth scenario, protected under the Title III of the ADA, applies to businesses that are open to the public such as "businesses and nonprofits serving the public" and "privately operated transit."[84] The specific requirements also regard "reasonable modifications" to areas including but not limited to service animals, mobility devices, and effective communications,[85] adding no new variables to our cumulative list. The fifth scenario applying to "telecommunication companies" under Title IV requires that they "must provide services to allow callers with hearing and speech disabilities to communicate"[86] without further details. The last scenarios covered by laws other than the ADA are housing and air travel, protected respectively under the "Fair Housing Act" and the "Air Carriers Access Act."[87]

E. Variables

Based on the above thorough analysis of the types of protected characteristics and the scenarios in which they are protected from discrimination by the Civil Rights Act and the Americans with Disabilities Act, as focused on by the Community Relations Service, we compile below all variables to be collected for our dataset.

1. Protected Characteristics

- Race: race, hair texture, skin color, facial features, national origin, part-of-the-world origin, ethnicity, accent, perceived ethnicity, citizenship, immigration status, race association

- Gender: sex, gender, gender normative/ gender non-conformity, gender identity, transgender/ cisgender, sexual orientation, gay/ heterosexual/ bisexual

- Religion: religion (broad and inclusive), religion association

- Disability: actual disability, record of disability, perceived disability, disability association

2. Scenarios

- Workplace: hiring, firing, pay, job assignments, promotions, layoff,

[82] *Id.*
[83] Introduction to the Americans with Disabilities Act, *supra* note 65.
[84] *Id.*
[85] ADA Update: A Primer for Small Business, ADA.GOV (2023), https://www.ada.gov/resources/title-iii-primer/ (last visited Sep 14, 2023).
[86] Introduction to the Americans with Disabilities Act, *supra* note 65.
[87] *Id.*

training, fringe benefits, segregation, differential security requirements, forced religious activities, other terms or conditions of employment; work harassment; discriminatory employment policies; reasonableness of accommodations; accommodations provided

- Public and private services: reasonable modifications to policies and procedures, allowing service animals, appropriateness of mobility devices, allowing mobility devices, effective communication

3. Signals for (Un)Reasonableness

- Of general accommodations: type of workplace, nature of the duties, identifiable cost, number of accommodated employees, safety/security requirement, effect on efficiency, infringement of others' rights, overall financial resources, overall size of the business, composition of the workforce, structure of the workforce, functions of the workforce, nature of the public service

- Of mobility devices for people with disabilities: type, size, weight, dimensions, and speed of the device, volume of pedestrian traffic, facility's design and operational characteristics, legitimate safety standards, risk of serious harm to the environment or natural or cultural resources

- Of effectiveness of communication for people with disabilities: nature, length, and complexity of the communication, the person's normal communication method

CONCLUSION

With the final goal of detecting discriminations in mind, our paper mainly made two efforts—we proposed repeatedly applying the Bayesian method as our testing mechanism, and we summarized an incomprehensive list of informing variables, as guided and specified by relevant anti-discrimination laws covering race, gender, religion, and disability, whose values are to be cumulatively collected for Bayesian data analysis.

Looking forward, there is much more to be done towards our end, including 1) a close look into the technicalities for carrying out Bayesian data analysis, 2) refining the appropriate types (categorical, continuous, binary, etc.) of each of the variable to fit the purposes of the corresponding laws, 3) thinking through the exact relationships between signaling variables and the accommodation variables, not to mention 4) the practical details for data collection and the data cleaning process.

THE GAZA CONFLICT WITHIN INTERNATIONAL LAW

Channa Weiss*

Abstract: Israel came under brutal attack on October 7, 2023, culminated in a long festering all out conflict against the Hamas perpetrators in the Gaza Strip. All parties to conflict must act in accordance with international law. This article examines whether Israel's subsequent use of force to rescue and defend its nationals, abides by the right of self-defense under the UN Charter and is in accordance with the law of armed conflict and international humanitarian law.

Keywords: Gaza Conflict; Right of Self-Defense; Law of Armed Conflict; International Humanitarian Law

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Early October 7, 2023 Hamas terrorists breached the border between Israel and Gaza. They eliminated the security forces patrolling the area and made their way to the closest civilian communities and a music festival occurring nearby. They brutally shot and killed 1400 revelers and families and took 294 hostages, among them elderly women and children. Hamas continued raining rockets from their stronghold in Gaza to however far they could reach.

On October 8, 2023 Israel sealed Gaza's borders and cut off their electricity. Their demand that the hostages be released was flatly denied by Hamas leadership. Israeli military proceeded to deploy numerous airstrikes on Hamas strongholds that are deeply embedded and enmeshed in the densely populated civilian neighborhoods. On November 1, 2023 Israel began a ground invasion of Gaza. As a result of the onslaught, the death toll in Gaza exceeds over 8500.

As of the publication of this paper, the hostages have still not been released, and both Gaza and Israel continue to attack and battle with all the means at their disposal.

INTRODUCTION

War and conflict have always extracted a terrible toll on humanity, and the international community has attempted to establish an international order of law to curtail its occurrence and regulate and minimize its devastating effects. International Law is the lens that examines the conflict in Gaza, determines whether or not it is justified, and specifies the means with which it may and may not be conducted.

The legal regimes that are directly relevant to the Gaza conflict are International Law and International Humanitarian Law. International Law is based on international treaties, mainly the UN Charter, and determines whether or not a war is justified. International Humanitarian Law, based on the Geneva Conventions, applies to situations where hostilities rise to the level of international armed conflict, and defines a state's obligations in war.

International Law and International Humanitarian Law have evolved over time, with subsequent establishments building on previous agreements, and vary as to the number of states agreeing and adhering to them. The accumulated codified bodies of law establish a benchmark for states to adhere to on a diplomatic and humanitarian level.

I. INTERNATIONAL LAW

Contemporary International Law can be categorized into international treaties, customary international law, general legal principles and judicial decisions.[1] The law governing when states can use military force is known as "jus ad bellum," which refers to the law regulating the use of force internationally.

The law relating to the initiation of armed conflict, the determination as to whether or not a State can initiate or engage in war, is referred to as *jus ad bellum*. Nation states are prohibited in engaging in war unless there is a legitimate *causus bello*

[1] Statute of the International Court of Justice art. 38(1), Jun. 26, 1945, 59 S.T.A.T. 1055.

- a reason for war. This was codified in 1928 in the **Kellogg–Briand Pact**, which stated that conflicts should be settled through peaceful negotiations with the exception of self-defense.

A. UN Charter

This fundamental principle was re-affirmed in the **United Nations Charter of 1945** which codified the major principles of international relations. The UN Charter provides for "an almost absolute prohibition on the use of force", with the exception of self-defense.

Article 2(4) of the UN Charter states that "All Members shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the Purposes of the United Nations.[2]" The sole exception is self defense or use of force sanctioned by the UN Security Council.

Article 51 of the UN Charter states that self-defense is a legitimate exception to the prohibition against war and recognizes the inherent right of self defense for any member nation under attack. Article 51 states that, "Nothing in the present Charter shall impair the inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations, until the Security Council has taken measures necessary to maintain international peace and security." The principle of self defense is that a nation can take steps to terminate or eliminate an ongoing threat to its national security.

In addition, the rescue of hostages is well within the rights of self defense as the right and a duty of a nation. "An armed rescue action to save lives of nationals is not prohibited by Article 2(4) when the territorial government is unable or unwilling to protect them and the need for instant action is manifest."[3] As stated by Sir Derek Bowett: "Political theories of the social contract gave rise to the view that protection, as the duty of the state, afforded the consideration of the pactum subjection is, and that protection of the nationals of the state was, in effect, protection of the state itself."[4]

B. Universal Declaration of Human Rights

The United Nations also established the UN Commission on Human Rights, which developed the **Universal Declaration of Human Rights in 1946** which established human rights standards, including the prohibition of torture.

C. Genocide Convention

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[2] UN Charter.
[3] Kristen E. Eichensehr, Defending Nationals Abroad: Assessing the Lawfulness of Forcible Hostage Rescues, 48(2) VA. j. int. law 451, 451-484 (2008).
[4] DEREK W. BOWETT, SELF-DEFENCE IN INTERNATIONAL LAW, Ch. 92, (1958).

The **Genocide Convention** was the first human rights treaty adopted by the General Assembly of the United Nations in 1948 and signified the international community's commitment to ensure that genocide would never be allowed to occur.

D. Vienna Convention on the Law of Treaties

The **Vienna Convention on the Law of Treaties was adopted in 1969** and stablished the fundamental concept of *jus cogens* - peremptory norms, that require a state to respect certain rights. Enshrined in **Article 53 of the Vienna Convention on the Law of Treaties***, jus cogens* prohibits internationally wrongful acts including waging aggressive war, war crimes, crimes against humanity, genocide, and torture.

E. ICJ Prohibition of Genocide

In **1970, the International Court of Justice** issued a decision that mandated *erga omnes* obligations of "the international community as a whole", prohibiting genocide and the violation of human rights.[5]

To constitute genocide, there must be a proven intent on the part of perpetrators to physically destroy a national, ethnical, racial or religious group. Genocide comprises acts – including killing, causing serious bodily or mental harm, or forcibly transferring children – taken with intent to destroy, *in whole or in part*, a national, ethnical, racial or religious group. In this regard, the International Court of Justice observed that "the prohibition of genocide has the character of a peremptory norm [of international law] (*jus cogens*)," from which no derogation is permitted.[6]

F. International Humanitarian Law

International Humanitarian Law details *jus in bello* - the law during war. It seeks to limit the effects of armed conflict by protecting civilians not participating in hostilities and restricting the means and methods of warfare.

International Humanitarian Law is accepted as Customary International Law and is binding to all States. **Customary international law** refers to the legal obligations of States arising from established international norms by consistent practice and conviction, also referred to as *opinio juris*. The provisions of International

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[5] International Court of Justice's decision in the *Barcelona Traction* case [(*Belgium v Spain*) (Second Phase) ICJ Rep 1970 3 at paragraph 33]: "… an essential distinction should be drawn between the obligations of a State towards the international community as a whole, and those arising vis-à-vis another State in the field of diplomatic protection. By their very nature, the former are the concern of all States. In view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations erga omnes. [at 34] Such obligations derive, for example, in contemporary international law, from the outlawing of acts of aggression, and of genocide, as also from the principles and rules concerning the basic rights of the human person, including protection from slavery and racial discrimination. Some of the corresponding rights of protection have entered into the body of general international law ... others are conferred by international instruments of a universal or quasi-universal character."

[6] Ibid.

Humanitarian Law were established by the treaties of the **Hague Conventions of 1899 and 1907 and the Geneva Conventions of 1949 and its subsequent Protocols.**

G. Hague Conventions

The two **Hague Conventions of 1899 and 1907** placed restrictions on the conduct of war.

Article 27 of the Hague Regulations specifically refers to sieges, and sets out a limited obligation to 'spare 'certain civilian objects when conducting attacks and demands that the military do their utmost to spare buildings devoted to religion, art, science, and hospitals.[7] This obligation only applies as long as they are not being used for military purposes.

Article 50 of the Hague Regulations bars collective punishment, stating that "No general penalty, pecuniary or otherwise, can be inflicted on the population on account of the acts of individuals for which it cannot be regarded as collectively responsible."

According to Human Rights Watch, "in order to determine whether a pattern of closures, blockades, and curfews amounts to collective punishment, account must be taken of the timing, duration, and extent of the measures imposed, the reasons invoked by the occupying power for the restrictive measures, the proportionality of those measures to the reasons invoked, and the effect of the measures on the population affected."[8]

H. Geneva Conventions

The four **Geneva Conventions of 1949** were organized by the International Committee of the Red Cross and set forth the rules governing the use of force in armed conflict. They codify contemporary International Humanitarian Law and bind nearly every State in the world.

The **First Geneva Convention** covers wounded and ill combatants, the **Second Geneva Convention** covers combatants at sea who are wounded, ill or shipwrecked, the **Third Geneva Convention** covers prisoners of war and the **Fourth Geneva Convention** deals with the treatment of civilians and their protection during wartime.

These conventions were supplemented with amended **Protocol I** (1977) relating to the Protection of Victims of International Armed Conflicts, and amended **Protocol II** (1977) relating to the Protection of Victims of Non-International Armed Conflicts.

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[7] It does not prohibit the targeting of these civilian objects, but merely requires attacking forces to take necessary steps to 'spare 'them unless they become military objectives. Following the extensive codification of the rules regulating the conduct of hostilities that has taken place since 1907, attacks directed against all civilian objects are now prohibited, including in sieges.

[8] Human Right Watch, *The Obligations Of Israel And The Palestinian Authority Under International Law*, CENTER OF THE STORM, A CASE STUDY OF HUMAN RIGHTS ABUSES IN HEBRON DISTRICT (Feb. 8, 2024, 14:41), https://www.hrw.org/reports/2001/israel/hebron6-04.htm#P434_82818.

Article 3 common to all the Geneva Conventions prohibits murder, cruel treatment, torture, outrages against personal dignity, and degrading or humiliating treatment for civilians and for combatants who have been captured or wounded. It essentially requires humane treatment of civilians and noncombatants.

Article 5 of the Geneva Convention states that if "an area is in danger as a result of military operations or is liable to be subjected to intense bombing, the occupying power has the right and, subject to the provisions of Article 5, the duty of evacuating it partially or wholly, by placing the inhabitants in places of refuge."

Protocol I - Article 51[9] seeks to limit the damage caused by military operations and protects civilian populations in the conduct of hostilities and prohibits all suffering, injury, or destruction that is unnecessary to realizing legitimate military objectives. It seeks to limit the damage caused by military operations and covers the main principles of International Humanitarian Law which are the prohibition to attack civilians, the prohibition to inflict unnecessary suffering, the principle of necessity, distinction and proportionality.

The four basic principles International Humanitarian Law revolve around: *military necessity*, which limits attacks to strictly military objectives; *distinction*, which allows only combatants and military objects to be directly attacked and requires they be distinguished from civilians and civilian objects; *proportionality*, which prohibits attacks that would cause disproportionate or excessive losses to civilians or civilian objects compared to the anticipated military advantage of the attack; and *humanity*, which prohibits all suffering, injury, or destruction that is unnecessary to realizing legitimate military objectives.

The principle of **necessity** limits attacks to strictly military objectives. **Protocol I, Article 51(4)**, states that indiscriminate attacks, "those which are not directed against a military objective," are prohibited. It mandates that military forces are not allowed to deliberately target civilians, and obligated to do everything feasible to mitigate the risk when attacking a legitimate target.

The principle of **distinction**[10] requires that only combatants and military objects may be directly attacked, and that they be distinguished from civilians and civilian objects by clearly identifying themselves. Attacks that are" of a nature to strike military objectives and civilians or civilian objects without distinction," are considered indiscriminate and are prohibited.

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[9] Proportionality is also discussed in Article art. 51(5)(b), 57(2)(a)(iii) and (b) Additional Protocol I) and in many other provisions of the 1949 Geneva Conventions (GCs) and the 1977 Additional Protocols (APs).

[10] Article 51(5)(a) includes among the list of indiscriminate, and therefore prohibited, attacks: "an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects."

The doctrine of **proportionality** [11] prohibits attacks that would cause disproportionate or excessive losses to civilians or civilian objects compared to the anticipated military advantage of the attack. Indiscriminate attacks also consist of attacks that "may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated." The rule of proportionality states that the harm to innocent civilians caused by collateral damage during combat operations must be proportionate to the military objective sought.

Protocol I - Article 54 (1)(2) prohibits acts whose specific purpose is the denial of sustenance for whatever reason, including starvation, forced displacement or anything else.

Protocol I - Article 57(1) states that "in the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects." Casualties that result when civilians are concealed within military installations, are considered "collateral damage", and incidental to an attack on a military objective. However, combatants are required to "take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects."

Protocol I - Article 57(2)(c) states that "effective advance warning shall be given of attacks which may affect the civilian population, unless circumstances do not permit."

Protocol I - Article 58 sets forth the treaty law requirement for passive precautions. A party in a conflict is equally required to take precautions to protect the civilian population *against* the effects of attacks. In its *Kupreškić* judgment, the ICTY found the requirement to be customary and therefore binding to all. Utilizing civilians as human shields directly violates this mandate.

Protocol I - Article 75(2c) specifically prohibits the taking of hostages. It requires that persons held by a combatant power shall be treated humanely in all circumstances and provides a detailed list of prohibited conduct.

Protocol I - Article 85(3)(b) reiterates the principle of proportionality and states that it is a war crime to launch "an indiscriminate attack affecting the civilian population or civilian objects in the knowledge that such attack will cause excessive loss of life, injury to civilians or damage to civilian objects."

Protocol II states that, "persons taking no active part in the hostilities, including members of armed forces who have laid down their arms and those placed *hors de combat* by sickness, wounds, detention, or any other cause, shall in all circumstances be treated humanely."

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[11] Anaïs Maroonian, *proportionality in international humanitarian law: a principle and a rule*, LIEBER INSTITUTE FOR LAW & WARFARE AT WEST POINT (Feb. 8, 2024, 14:41), https://lieber.westpoint.edu/proportionality-international-humanitarian-law-principle-rule.

Protocol II - Article 4(2c) explicitly prohibits: "violence to life and person, in particular murder of all kinds, mutilation, cruel treatment and torture; taking of hostages; outrages upon dignity, in particular humiliating and degrading treatment."

The **3rd Geneva Convention** discusses prisoner-of-war status.

The **4th Geneva Convention - Article 4** defines "Protected Persons" and applies to all civilians in a war or under occupation. It reads: "Persons protected by the Convention are those who, at a given moment and in any manner whatsoever, find themselves, in case of a conflict or occupation, in the hands of a Party to the conflict or Occupying Power of which they are not nationals."

Article 17 of the 4th Geneva Convention and numerous prior international law regulations refers to seiges[12]. Sieges are not prohibited as such under either IHL or other areas of public international law. Under IHL, the besieging party is entitled to attack forces and other military objectives in besieged areas, and to limit supplies that reach them. However, in doing so it must comply with all relevant rules of IHL: the few that specifically refer to sieges, as well as the generally applicable rules that regulate the conduct of hostilities and afford civilians protections and safeguards.[13]

The laws of war permit siege warfare – otherwise known as "encirclement" – against enemy armed forces and other military objectives, but the laying of sieges must comply with all relevant rules in the Laws of Armed Conflict. To the extent that bombardment is used during a siege, it must comply with the relevant rules of IHL regulating the conduct of hostilities. Bombardments constitute an 'attack 'as this term is defined in Additional Protocol I of 1977 to the Geneva Conventions of 1949 (AP I): 'acts of violence against the adversary, whether in offence or in defence'.[14] This means that bombardments must comply with a number of key rules: they must be directed exclusively against military objectives;[15] they must not be indiscriminate;[16] and they must comply with the rule of proportionality.[17] Moreover, in the conduct of all military operations, belligerents must take constant care to spare the civilian population and civilian objects, and besieging and besieged forces must take a number of precautionary measures.[18]

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[12] Article 27 Regulations concerning the Laws and Customs of War on Land annexed to 1907 Convention (IV) respecting the Laws and Customs of War on Land (1907 Hague Regulations); Article 15 1949 Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (GC I); Article 18 1949 Geneva Convention For the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (GC II); and Article 17 1949 Geneva Convention relative to the Protection of Civilian Persons in Time of War (GC IV).

[13] https://www.chathamhouse.org/2019/06/sieges-law-and-protecting-civilians-0/ii-what-siege-and-it-prohibited

[14] Protocol Additional to the Geneva Conventions of 12 August 1949 art. 49(1), and Relating t o the Protection of Victims of International Armed Conflicts of 8 June 1977, Jun. 08, 1977. (he reinafter AP I)

[15] AP I, *supra* note 14, art. 51(2), 52(1).

[16] AP I, supra note 14, art.51(4)

[17] AP I, *supra* note 14, art. 51(5)(b)

[18] AP I, *supra* note 14, art. 57, art. 58.

Siege is lawful unless deliberately aimed at starving a local population. Addressed in both Geneva and Hague conventions, the use of a siege is recognized as an effective tool for bringing a conflict to a rapid and successful end.

Article 33 specifically prohibits collective punishment: "No protected person may be punished for an offense he or she has not personally committed." Collective penalties and likewise all measures of intimidation or of terrorism are prohibited.

Even Human Rights Watch admits "Not every restriction or act of closure imposed by the Israeli authorities amounts to collective punishment. As an occupying power, Israel is entitled to impose some restrictions on the rights of the resident population if military necessity so demands." In order to determine whether a pattern of closures, blockades, and curfews amounts to collective punishment, account must be taken of the timing, duration, and extent of the measures imposed, the reasons invoked by the occupying power for the restrictive measures, the proportionality of those measures to the reasons invoked, and the effect of the measures on the population affected."[19]

Article 34 of the 2nd and 4th Geneva Conventions states that the taking of hostages is prohibited.

Article 50 requires Israel to "facilitate the proper working of all institutions devoted to the care and education of children;"

Article 53 prohibits "any destruction by the Occupying Power of real or personal property ... except where such destruction is rendered absolutely necessary by military operations;"

Article 55 requires Israel to ensure "the food and medical supplies of the population;" and that "medical personnel of all categories shall be allowed to carry out their duties."

Article 56 (movement of medical transportation and public health facilities

Article 72 (access to lawyers for persons charged)

Article 147 to the 4th Geneva Convention states that the taking of hostages is considered a grave breach.[20]

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[19] Human Right Watch, *The Obligations Of Israel And The Palestinian Authority Under International Law*, CENTER OF THE STORM, A CASE STUDY OF HUMAN RIGHTS ABUSES IN HEBRON DISTRICT (Feb. 8, 2024, 14:41), https://www.hrw.org/reports/2001/israel/hebron6-04.htm#P434_82818.

[20] Article 147 - Penal sanctions II. Grave breaches - Grave breaches to which the preceding Article relates shall be those involving any of the following acts, if committed against persons or property protected by the present Convention: wilful killing, torture or inhuman treatment, including biological experiments, wilfully causing great suffering or serious injury to body or health, unlawful deportation or transfer or unlawful confinement of a protected person, compelling a protected person to serve in the forces of a hostile Power, or wilfully depriving a protected person of the rights of fair and regular trial prescribed in the present Convention, taking of hostages and extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly.

I. Rules

The International Committee of the Red Cross compiled a list of rules that cover the scope of International Law.

Rules 15–24 ICRC CLS states that in the conduct of all military operations, belligerents must take constant care to spare the civilian population and civilian objects, and besieging and besieged forces must take a number of precautionary measures.

J. Reprisals

The **1984 UN Convention against Torture** mandated that the national courts of the contracting countries must prosecute these offenses where the perpetrator is on their territory or extradite them to any other interested state. The Convention absolutely prohibits torture and other acts of cruel, inhuman, or degrading treatment or punishment.

The **International Criminal Court** was established by the 1998 Rome Statute, is the first and only permanent international court to prosecute genocide, war crimes, crimes against humanity, and the crime of aggression. There are 123 state parties to the ICC although a number of states have declared their opposition to the court.

Articles 7 and 8 detail provisions on war crimes and crimes against humanity which reflect customary international law and apply to Hamas leaders and fighters.

Article 7(1) of the Rome Statute prohibits crimes against humanity, including murder[21], extermination (mass murder)[22], imprisonment[23], torture[24], and sexual violence.[25]

Article 7(2)(a) of the Rome Statute determines that crimes against humanity must be committed in furtherance of a State or organizational policy to commit an attack. The plan or policy does not need to be explicitly stipulated or formally adopted and can, therefore, be inferred from the totality of the circumstances. In contrast with genocide, crimes against humanity do not need to target a specific group. Instead, the victim of the attack can be any civilian population, regardless of its affiliation or identity.

In **Article 8(20)(f),** the ICC specifically prohibits "utilizing the presence of a civilian or other protected person to render certain points, areas or military forces immune from military operations" in international armed conflict. "at times civilians are forced to serve as "human shields" from attack upon a military target, and they are harmed as a result. In all those situations, and in other similar ones, the rule is that the harm to the innocent civilians must fulfill, *inter alia*, the requirements of the principle of proportionality." In conducting an attack, commanders must take into account those

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[21] Rome Statute of the International Criminal Court art. 7(1)(a), Jul. 7, 2002. (hereinafter Rome Statute)
[22] Rome Statute, *supra* note 21, art. 7(1)(b).
[23] Rome Statute, *supra* note 21, art. 7(1)(e).
[24] Rome Statute, *supra* note 21, art. 7(1)(f).
[25] Rome Statute, *supra* note 21, art. 7(1)(g).

civilians used as involuntary human shields both in the proportionality analysis and in the obligation to minimize harm to civilians.[26]

Article 8(2)(b)(xxv) of the Rome Statute expressly prohibits the starvation of an enemy civilian population as a means of warfare. Civilians may not be the target, but a lockdown or siege may be used against a legitimate military objective.

Article 8(2)(c) of the Rome Statute prohibits lists additional war crimes, including the taking of hostages[27], rape and other forms of sexual violence[28], torture[29], and outrages upon personal dignity.[30]

II. THE EVENTS OF OCTOBER 7, 2023 AND THE AFTERMATH

Hamas militants stormed from Gaza into southern Israel on October 7, 2023. They invaded a music festival where they raped and murdered over 300 revelers, as well as a number of bucolic communities in the vicinity. They killed about 1,200 people, mostly civilians. Many of the victims were tortured and brutalized before being killed in the most gruesome fashion. In addition, Hamas terrorists captured 229 hostages, among them women, children, and the elderly, and held them in Gaza.

In response, Israel laid siege to Gaza, home to 2.3 million people, and launched an air and ground campaign with the stated aim of annihilating Hamas, which runs the enclave.

Hamas' armed attack on October 7, 2023 and their capture and retention of hostages, triggered Israel's right to unleash military force in self-defense. That right is not limited to actions against conventional armed forces, but also extends to the military capabilities of the Hamas organized armed group so that the security of the state can be restored.

Nevertheless, Israel attempts to limit civilian damage as much as possible. Israel's practice of dropping leaflets, roof knocking[31], issuing warning shots, and call outs[32], warning civilians to flee before bombing raids on Hamas targets satisfies that requirement. Furthermore, the IDF regularly monitors the area to assess whether

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[26] The Israeli High Court explained in 2009, "What is the law regarding civilians serving as a 'hu man shield 'for terrorists taking a direct part in the hostilities? Certainly, if they are doing so beca use they were forced to do so by terrorists, those innocent civilians are not to be seen as taking a direct part in the hostilities. They themselves are victims of terrorism.

[27] Rome Statute, supra note 21, art. 8(2)(c)(iii).

[28] Rome Statute, supra note 21, art. 8(2)(e)(vi).

[29] Rome Statute, supra note 21, art. 8(2)(c)(i)).

[30] Rome Statute, supra note 21, art. 8(2)(c)(ii).

[31] The technique involves employing munitions that impact one corner of the roof and detonate s a very small explosion that produces noise and concussion several minutes in advance of the strike. The civilians are hopefully frightened into dispersing. Once it has cleared the target ar ea, the IDF launches the attack.

[32] Where ground forces yell to occupants in a building, warning them to leave before the IDF troops enter (also a common U.S. practice)

civilians have heeded the warnings, utilizing data from mobile phones in Gaza to assess where Gazans are located following its warning to evacuate the north.[33]

Michael N. Schmitt of the United States Military Academy at West Point, has stated that "there is no question that the IDF's warnings practice, in general, is the gold standard. Indeed, as a matter of policy, the IDF typically exceeds what the law requires. It is likewise clear that its warning to evacuate northern Gaza constitutes an "effective warning," as that concept is understood in International Humanitarian Law."

Israel has been encouraging and assisting civilian residents of Gaza in the line of fire to move South away from the hostilities or to neighboring Egypt. An occupying power has the legal right, and in certain circumstances a duty, to perform an evacuation for the safety of civilians. Israel's designation of evacuation routes comports with the European Court of Human Rights '2005 *Isayeva* judgment, which emphasized the importance of designated safe evacuation routes in the context of the armed conflict in Chechnya.[34]

Israel is not prohibited from attacking if it anticipates collateral damage to civilians or civilian infrastructure. Proportionality does not require that there be no collateral damage from Israeli strikes on Hamas targets, nor does it require Israel to absorb the same proportion of casualties as Gaza. Nor is proportionality a prohibition against military targeting that would inevitably harm or kill civilians. Proportionality is also not a doctrine that limits offensive combat operations to the harm a nation has sustained from the enemy's operations. To adhere to the principle of proportionality, Israel is required to balance of interests in the conduct of hostilities and requires that the anticipated incidental loss of human life and damage to civilian objects should not be excessive in relation *to* the concrete and direct military advantage expected from the destruction of a military objective.

In such a densely populated area such as Gaza, and with an opponent that routinely uses civilians and civilian buildings as human shields for terrorists and terrorist activity, such damage is inevitable. The principle of distinction requires combatants to wear uniforms and clearly identify themselves. The fact that numerous civilian lives are lost because Hamas command centers, weapons manufacturing shops and arsenals are located amid civilians are attributable to Hamas and not to Israel.

Israel is justified in destroying edifices used for military operations, despite their protected status, when they are used and designated as terrorist centers precisely for that reason. Hamas set up its command headquarters in caverns beneath Al Shifa hospital in northern Gaza, knowing that Israel is reluctant to attack a hospital.

Israel's limitations on Gaza are an acceptable means of controlling the combatting forces. Whereas a conditions on siege warfare is the prohibition on

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[33] Patrick Kingsley & Ronen Bergman, *Tracking Cellphone Data by Neighborhood, Israel Gau ges Gaza Evacuation*, THE NEW YORK TIMES (Feb. 8, 2024, 14:41), https://www.nytimes.com/20 23/10/16/world/middleeast/gaza-invasion-israel-cellphone-data.html.

[34] *Isayeva, Yusupova and Bazayeva v. Russia*, App. No. 57947/00; 57948/00; 57949/00, (Dec 1 9, 2002), https://www.refworld.org/caselaw/echr/2002/en/29317.

starvation of civilians, Israel only provide 8% of water to Gaza. Curtailing their supply does not violate the prohibition of starving enemy forces.

Senator Michael McCaul, chairman of the House Foreign Affairs Committee, stated, "Hamas 'actions were not just acts of 'terrorism 'or 'terrorist attacks. 'Rather, the assault was carried out by a genocidal organization and comprised nothing less than the full range of atrocity crimes under international law."[35] Hamas committed acts of genocide, crimes against humanity, and war crimes against the Jewish people and the State of Israel.

Hamas' explicit aim is to exorcise Israel completely, a far cry from the guerrilla freedom fighters it seeks to present itself as. The Covenant of the Islamic Resistance Movement, more commonly known as the Hamas Covenant was adopted on August 18, 1988. It calls for "the Jews . . .. [to be] vanquished," that "Moslems . . . [should] come and kill the Jew," and that "Israel will exist . . . until Islam will obliterate it."[36] The Covenant makes abundantly clear that Hamas is determined to obliterate the State of Israel and to ravage and kill the Jews living there.

In 2012 Abdel Aziz al-Rantisi, a co-founder of Hamas reiterated the organization's non-negotiable genocidal intention[37]. "By God," he said, "we will not leave one Jew in Palestine. We will fight them with all the strength we have. This is our land, not the Jews' …"[38]

Destroying Hamas, an enemy combatant intent on Israel's utter destruction, who continuously targets civilians is a legitimate military target, essential to ensuring the continued safety and security of Israel and its citizens.

III. LEGAL FRAMEWORK OF GAZA CONFLICT

International humanitarian law applies to armed conflict involving two States. It applies only once a conflict has begun, and then equally to all sides regardless of who started the fighting. According to the decision of the International Criminal Tribunal for the former Yugoslavia in the *Tadić* case, "an armed conflict exists whenever there is a resort to armed force between States or protracted armed violence between

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[35] *McCaul Declares Hamas Committed Acts of Genocide, Crimes Against Humanity, War Crimes — Calls Upon State Department to Determine Same*, HOUSE FOREIGN AFFAIRS COMMITTEE GOP (Feb. 8, 2024, 14:41), https://foreignaffairs.house.gov/press-release/mccaul-declares-hamas-committed-acts-of-genocide-crimes-against-humanity-war-crimes-calls-upon-state-department-to-determine-same/

[36] Replete with antisemitic tropes, the Covenant asserts as a premise that "Israel, Judaism, and Jews challenge Islam and the Moslem people." Quoting from the Quran, it warns "those who believe not, Ye shall be overcome, and thrown together into hell." The 2017 Hamas Document of General Principles & Policies also confirms that Hamas" conflict is with the Zionist projec t," that "the Zionist movement must disappear from Palestine," and that "[r]esisting . . . with all means and methods is a legitimate right . . . [especially] armed resistance." "Israel will exist a nd will continue to exist until Islam will obliterate it."

[37] *Hamas in Their Own Words*, ANTI-DEFAMATION LEAGUE (Feb. 8, 2024, 14:45), https://www.a dl.org/resources/news/hamas-their-own-words

[38] Hamas leaders have reiterated this repeatedly over the years. "Palestine is Islamic, and not a n Islamic emirate, from the river to the sea, that unites the Palestinians," declared Khalil al-Ha yya, a member of Hamas' politburo, in 2010. "Jews have no right in it, with the exception of those who lived on the land of Palestine before World War I."

governmental authorities and organized armed groups or between such groups within a State."

Generally, international law recognizes two kinds of armed conflicts: "international armed conflict" and "non-international armed conflict." Whereas International Armed Conflict is a declared war or any other armed conflict between two or more States, a Non-International Armed Conflict is an armed conflict involving a non-State organized, armed groups. Each has its own rules, although many of the basic provisions are common to both. When the criteria of international armed conflict have been met, the full protections of the Conventions are considered to apply.

It is not yet settled which regime applies to cross-border military confrontations between a sovereign State and a non-State terrorist armed group operating from a separate territory.[39] Hamas is a highly organized and well-armed group that uses armed force against Israel, and, indeed, considers such armed struggle to be its primary mission. By any measure, the conflict between Israel and Hamas has been protracted, spanning many years and intensifying in recent years as Hamas tightened its unlawful grip on Gaza.

IV. OBLIGATIONS

The prohibitions against war and genocide have been considered as norms of customary international law and therefore, binding on all States, regardless of ratification. Uses of force in self-defense and with it right to rescue, are also within the purview of customary international law.[40]

Every State in the world has ratified the Geneva Conventions of 1949, including Israel and Palestine.[41] The Conventions apply to all cases of armed conflict between two or more signatory nations. This language was added in 1949 to accommodate situations that have all the characteristics of war held to be violators of international peace and order.

Israel ratified the Geneva Conventions on July 6, 1951. Israel has not signed or ratified the 1907 Hague Regulations, but the Israeli High Court has found that the 1907 Hague Regulations are part of customary international law, and thus binding on all states, including those not party to the treaty. Israel is not a party to Protocol I, but the provisions prohibiting indiscriminate warfare are considered to be norms of customary international law, binding on all parties to a conflict, regardless of whether it is an international or internal armed conflict.

Palestine has ratified all three protocols, so as a state party, it is undeniably bound to their terms. There is dispute as to whether Palestine is considered a State. A state is defined under Article 1 of the Montevideo Convention on the Rights and Duties

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[39] Article 1 of Protocol I states that armed conflict against colonial domination and foreign occupation qualifies as an international conflict.

[40] Kristen E. Eichensehr, Defending Nationals Abroad: Assessing the Lawfulness of Forcible Hostage Rescues, 48(2) VA. j. int. law 451, 451-484 (2008).

[41] While some may dispute if or when exactly Palestine became a State for those purposes, the ICRC includes Palestine's accession to the 1949 Geneva Conventions as well as other LOAC treaties.

of States by having a permanent population, a defined territory, government and capacity to enter relations with other states. Whether Hamas is a part of that State depends on whether sufficient ties exist between the State and Hamas such that the State wields overall control over Hamas, by equipping, financing, and coordinating military activity. Hamas, as a de facto governing authority in Palestine with control over its own militant forces, is obligated as part of the state, to comply with the Geneva Conventions and its three protocols.

Due to Palestine's accession to the Rome Statute in 2015, the International Criminal Court has jurisdiction over any crimes either perpetrated by Palestinian nationals[42] or occurring in whole or in part on Palestinian territory[43]. Gaza is Palestinian territory in this respect.[44] The court has the jurisdiction to hold Hamas leaders and personnel accountable for committing genocide, crimes against humanity, and war crimes on Israeli territory or in Gaza.

ICC prosecutor Karim Khan has stated unequivocally, "If there is evidence that Palestinians, whether they're Hamas or Al Quds Brigades or the armed wing of Hamas or any other person or any other national of any other state party, has committed crimes. Yes, we have jurisdiction wherever they're committed, including on the territory of Israel." In addition, he noted, "One cannot deliberately target civilians or civilian objects. One can't rape, kill, mutilate, or dismember. Willful killing, hostage taking are grave breaches of the Geneva Convention and one has to comply with the law."

Israel, like the United States, is not a state party of the Rome Statute, but as Gaza is the territory of a state party, it's actions can still be scrutinized by the ICC.[45]

Under international humanitarian law, intentional attacks on civilians are prohibited under all circumstances. Israel's settlements in the West Bank and Gaza are populated by civilians, including children, who are entitled to the civilian protections contained in the Geneva Conventions. The status under international law of the settlements does not negate the rights of the civilians populating those settlements who are considered noncombatants. As such, under international law, violence to their "life and person, in particular murder of all kinds, mutilation, cruel treatment and torture," is "prohibited at any time and in any place whatsoever."

V. ANALYSIS COMP TO WORLD

With the actions on October 6, 2023 that it proudly took responsibility for Hamas mirrors the murderous, macabre playbook of ISIS, which perfected "the

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[42] Rome Statute, supra note 21, art. 12(2)(b)
[43] Rome Statute, supra note 21, art. 12(2)(a)
[44] International Criminal Court [ICC], *Situation in the State of Palestine*, paras. 114-131 (2021), https://www.icc-cpi.int/sites/default/files/CourtRecords/CR2021_01165.PDF
[45] The ICC top prosecutor Karim Khan has stated unequivocally in regard to Hamas' actions on October 7, "One cannot deliberately target civilians or civilian objects. One can't rape or kill, or mutilate or dismember," he said. "Wilful killing, hostage taking are grave breaches of the Geneva Convention and one has to comply with the law."

pornography of violence," reveling in their gruesome actions, and filming and disseminating the barbaric beheadings, torture and murder of civilians.

The War on Terror demonstrates that the laws of war do not prevent a nation from destroying a terrorist army in self-defense. Despite their adherence to laws of war, the United States and allied Iraqi forces killed up to 11,000 civilians in the city of Mosul in the course of removing the deeply embedded ISIS terrorists. Despite employing the most advanced precision weapons, Mosul suffered widespread destruction. Furthermore, Israel's military objectives are far more urgent than the United States. Unlike the proximity of Israel to Gaza, ISIS was thousands of miles from the United States, and while ISIS had beheaded a number of US citizens working in Iraq, the quantity of victims do not approach the number of fatalities slaughtered by Hamas.

Likewise, in WWII, in order to save over half a million lives of US servicemen, President Truman made the agonizing decision to drop the nuclear bomb on Hiroshima and Nagasaki.

According to a report by the James W. Foley Legacy Foundation, "there has been a significant rise in the number of wrongful detentions."[46] Terrorist organizations have a robust history of taking hostages for leverage. The Rand Corporation reported that hostage-takers gain even when their demands are not met because "terrorists derived benefits from kidnappings, including publicity, alarm, and throwing governments into crisis."[47]

During the Hostage Crisis in 1980, the United States attempted to forcibly rescue its hostages in Iran, but when that proved unsuccessful, ultimately traded arms for hostages. Since 1979, almost 100 Americans have been seized in Iran, with dozens of others taken by Iran's proxy militias elsewhere in the region, and the United States has responded with the full strength of its might.

In May 1980, gunmen overran the **Iranian** Embassy in **London** and took 21 **hostages**. When the occupying terrorists executed two of the hostages following Iran's refusal to release political prisoners, commandos from Britain's 22nd Special Air Service stormed the embassy and rescued the 19 of the remaining 21 hostages. In 2007, Iran seized two British boats, and captured 15 Royal Navy Personnel. The British government suffered criticism for not acting more forcefully to secure the release of its nationals from the Iranian regime.

Israel's actions are well within the scope of what any country would do, and is entitled to do, when faced with a violation and threat of this magnitude.

CONCLUSION

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[46] Caitlin Yilek, *Number of U.S. nationals wrongfully held overseas fell in 2022 for the first time in 10 years, report find*s, CBS NEWS (Feb. 8, 2024, 14:45), https://www.cbsnews.com/news/wrongfully-detained-americans-report-james-foley-foundation/

[47] Brian Michael Jenkins, *Why the U.S. Swaps Prisoners but Doesn't Pay Ransom*, THE RAND BLOG (Feb. 8, 2024, 14:45), https://www.rand.org/blog/2014/09/why-the-us-swaps-prisoners-but-doesnt-pay-ransom.html.

Jus ad bellum refers to "the conditions under which States may resort to war or to the use of armed force in general." *Jus in bello* encompasses international humanitarian law that governs the behavior of parties in an armed conflict and regulates the way in which warfare is conducted.

The limitations of international humanitarian law are designed to protect civilians not taking direct part in the hostilities and civilian objects, while taking into account the military necessities and the exigencies of the situation. The fact of civilian casualties in an armed conflict, even in significant numbers, does not in and of itself establish any violation of international law. In fact, the doctrine of "proportionality operates in scenarios in which incidental injury and collateral damage are the foreseeable, albeit undesired, result of attack on a legitimate target."

The determination of the legality of an attack is whether the attacking forces sought to observe the rules of the Law of Armed Conflict.

When individual attacks are legitimate, "the mere cumulation" of such instances, all of which are deemed to have been lawful, "cannot *ipso facto* be said to amount to a crime."

The laws of war, writes Andrew McCarthy, the lead prosecutor of those responsible for the first World Trade Center bombing, "are not a straitjacket that makes military objectives unattainable, and they do not insulate monsters who meld into civilian populations centers and stash their arsenals in schools, mosques, and hospitals from counterattack."

Israel is in a just defensive war, and it is permitted and mandated by the laws of war to pursue its objectives until they are achieved.

UPDATE ON PATENT-RELATED CASES IN COMPUTERS AND ELECTRONICS

Karishma Jiva Cartwright, Timothy T. Hsieh & Saurabh Vishnubhakat*

Abstract: This paper provides an overview of patent cases relating to computer and electronics technology that were not taken up by the Supreme Court during the October 2022 term. As of this writing, the Supreme Court has not granted certiorari in any patent-related cases for its October 2021 Term. The Court has, however, called for the views of the Solictor General in four cases, indicating higher interest and raising the possibility that one or more of these cases may appear on the Court's merits docket for the October 2022 Term. Additionally, though the Court denied certiorari in Baxter v. Becton, Dickinson, the briefing included a request by the Court for response to the petition, also an indicator of higher interest. Finally, some recent developments at the Federal Circuit warrant attention as well.

Keywords: Patent; Computers; Electronics; Supreme Court; Federal Circuit; PTAB; *Inter Partes* Review

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As of this writing, the Supreme Court has not granted certiorari in any patent-related cases for its October 2021 Term. The Court has, however, called for the views of the Solictor General in four cases, indicating higher interest and raising the possibility that one or more of these cases may appear on the Court's merits docket for the October 2022 Term. Additionally, though the Court denied certiorari in *Baxter v. Becton, Dickinson*, the briefing included a request by the Court for response to the petition, also an indicator of higher interest.[1] Finally, some recent developments at the Federal Circuit warrant attention as well.

I. PATENTABILITY ISSUES

The first two cases of interest involve substantive requirements for patentability, including the subject-matter eligibility doctrine and the written description requirement as it applies to means-plus-function claims. This section discusses each in turn.

A. Patent-Eligible Subject Matter

The first case of interest is *American Axle & Manufacturing, Inc. v. Neapco Holdings LLC, et al.*,[2] which presents a question of patent-eligible subject matter under 35 U.S.C. § 101. The two primary issues at stake in this case are: (1) what standard determines whether a patent claim is "directed to" a patent-ineligible concept under step 1 of the Supreme Court's two-step *Alice/Mayo* framework for determining whether an invention is eligible for patenting under 35 U.S.C. § 101; and (2) whether patent eligibility (at each step of the Court's two-step *Alice/Mayo* framework) is a question of law for the court based on the scope of the claims or a question of fact for the jury based on the state of art at the time of the patent.[3] The petition for a writ of certiorari in this case was filed on December 28, 2020, and so far, amicus briefs from the New York Intellectual Property Law Association, the Alliance of U.S. Startups & Inventors, the Chicago Patent Attorneys, the New York City Bar Association, Law Professors Jeffrey A. Lefstin and Peter Menell, Ameranth, Inc., Jeremy C. Doerre, the Biotechnology Innovation Organization and the Association of University Technology Managers (AUTM), U.S. Senator Thom Tillis, The Honorable Paul R. Michel and The Honorable David J. Kappos, and the Houston Intellectual Property Law Association have been filed.[4] Respondents Neapco Holdings LLC, et al., filed their opposition brief on March 31, 2021 and Petitioner American Axle & Manufacturing, Inc. filed their reply brief on April 12, 2021. A call for the views of the Solicitor General (CVSG) was issued on May 3, 2021, and on May 24, 2022, the United States filed their amicus brief, with the Solicitor General recommending granting review due to believing that the U.S. Court of Appeals for the Federal Circuit "erred in reading this Court's precedents to dictate a

[1] Disclosure: Professor Vishnubhakat was an amicus curiae in the *Baxter* case in support of certio rari as to the second question presented.
[2] Petition for a Writ of Certiorari, No. 20-891 (Sup. Ct., Dec. 28, 2020).
[3] SCOTUSblog, *American Axle & Manufacturing Inc. v. Neapco Holdings LLC*, https://www.scotusblog.com/case-files/cases/american-axle-manufacturing-inc-v-neapco-holdings-llc/ (last accessed Mar. 20, 2023).
[4] Id.

contrary conclusion.".[5] The government's brief also remarks that "the splintered separate opinions at the panel and rehearing stages illustrate [that] the Federal Circuit is deeply divided over the proper application of this Court's framework [for subject matter eligibility under 35 U.S.C. § 101], and the content of that framework is central here."[6] However, on June 30, 2022, the U.S. Supreme Court denied *certiorari* to hear the case.[7] Many commenters were ultimately disappointed with this decision, due to how this now "leaves it up to Congress and the U.S. Patent and Trademark Office (USPTO) to restore any semblance of clarity on U.S. patent eligibility for now."[8]

On October 3, 2019, the Federal Circuit affirmed the grant of a summary judgment from the U.S. District Court for the District of Delaware (Chief Judge Leonard Stark), finding ineligible under 35 U.S.C. § 101 American Axle's patent claims directed to a method for manufacturing driveline propeller shafts that "attenuat[e]…vibrations transmitted through a shaft assembly" in order to make the shafts less noisy upon operation.[9] Judge Dyk wrote the majority opinion joined by Judge Taranto, while (now Chief) Judge Moore wrote a dissent. The majority applied the two-step *Alice/Mayo* framework and in the first step, found that the claims were "directed to the utilization of a natural law (here, Hooke's law [F=kx] and possibly other natural laws)" because they were "an application of a natural law (Hooke's law) to a complex system without the benefit of instructions on how to do so."[10] In step two, the Federal Circuit concluded that "the claims did not recite an inventive concept or identify more than conventional pre- and post-solution activity."[11] Namely, "nothing in the claims qualifie[d] as an 'inventive concept' to transform the claims into patent eligible matter."[12] Judge Moore's dissent asserted that the majority focused more on enablement than patent eligibility and conflated the two steps of the *Alice/Mayo* test, ignoring questions of fact at step two regarding whether the claims contained an

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[5] Eileen McDermott, *IP Watchdog, Solicitor General Tells SCOTUS CAFC Got it Wrong in American Axle, Recommends Granting*, https://www.ipwatchdog.com/2022/05/24/solicitor-general-tells-scotus-cafc-got-wrong-american-axle-recommends-granting/id=149248/ (last accessed Mar. 20, 2023) (quoting Brief for the United States as Amicus Curiae, p. 9, Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, No. 20-891, https://www.supremecourt.gov/DocketPDF/20/20-891/226156/20220524150114156_20-891%20-%20American%20Axle%20CVSG.pdf)("American ("American Axle Amicus Brief")).

[6] *Id.* (citing American Axle Amicus Brief at 21).

[7] Blake Brittain, *U.S. Supreme Court rejects American Axle case on patent eligibility*, https://www.reuters.com/legal/litigation/us-supreme-court-rejects-american-axle-case-patent-eligibility-2022-06-30/ (last accessed Mar. 20, 2023).

[8] Eileen McDermott, *American Axle Denied: Patent Stakeholders Sound Off on SCOTUS' Refusal to Deal with Eligibility*, https://www.ipwatchdog.com/2022/07/04/american-axle-denied-patent-stakeholders-sound-off-scotus-refusal-deal-eligibility/id=149955/ (last accessed Mar. 20, 2023).

[9] Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 939 F.3d 1355, 1355-58 (Fed. Cir. 2019) reh'g granted, opinion withdrawn, 966 F.3d 1294 (Fed. Cir. 2020), and opinion modified and superseded on reh'g, 967 F.3d 1285 (Fed. Cir. 2020); Sarah M.D. Luff, Lexology, *Upcoming Issues of Patent Eligibility in 2022: American Axle v. Neapco*, https://www.lexology.com/library/detail.aspx?g=5f57d915-49df-4073-9a2f-132816b72047 (last accessed Mar. 20, 2023).

[10] Am. Axle, 939 F.3d at 1366; Baker Botts Client Updates, American Axle Petitions the US Supreme Court to Provide Clarity and Guidance on Section 101 Jurisprudence, https://www.bakerbotts.com/thought-leadership/publications/2021/june/american-axle-petitions-the-us-supreme-court-to-provide-clarity-and-guidance (providing the "[F=kx]" annotation).

[11] Alissa E. Green, *Federal Circuit Finds Method of Manufacturing Patent Ineligible*, Finnegan Federal Circuit IP Blog, https://www.finnegan.com/en/insights/blogs/federal-circuit-ip/federal-circuit-finds-method-of-manufacturing-patent-ineligible.html

[12] Am. Axle, 939 F.3d at 1367.

inventive concept.[13]

American Axle subsequently petitioned for panel rehearing and an *en banc* rehearing,[14] which was denied by the Federal Circuit in a 6-6 split spanning five opinions and hundreds of opinion pages.[15] However the Federal Circuit eventually granted a panel rehearing, withdrew its previous opinion, and issued a modified opinion on July 31, 2020.[16] In its modified opinion, the Federal Circuit held that the same claims were patent ineligible under Section 101 because they were directed just to Hooke's law – "a natural law, and nothing more."[17]

In its certiorari petition to the United States Supreme Court, American Axle argues five main points:

1. The Federal Circuit has pushed Section 101 well beyond its gatekeeping function to invalidate industrial manufacturing processes historically eligible for patent protection.

2. The Federal Circuit's improper expansion of the non-textual exceptions to Section 101 is in conflict with this Court's precedent and the patent statutes.[18]

3. The entire patent system is calling for guidance from the Court.[19]

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[13] Green, *supra* n. 11 (citing Am. Axle, 939 F.3d at 1368-75).
[14] Baker Botts, *supra* n. 10, citing Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 966 F.3d 1294, 1295 (Fed. Cir. 2020); Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 966 F.3d 1347, 1348 (Fed. Cir. 2020).
[15] Baker Botts, *supra* n. 10, citing Am. Axle & Mfg., 966 F.3d at 1295; Am. Axle & Mfg., 966 F.3d at 1348; Dani Cass, Law360, Patent Cases to Watch in 2022, https://www.law360.com/articles/1444784.
[16] Id.
[17] Baker Botts, *supra* n. 10, citing Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 967 F.3d 1285, 1297 (Fed. Cir. 2020).
[18] "With regards to the second point, American Axle's position largely mirrors those from the dissenting opinions at the Federal Circuit, arguing that what is being termed the 'Nothing More' test sets forth a "new blended 101/112 defense." According to American Axle, the Federal Circuit imbued Section 101 with the enablement requirement of Section 112 by requiring that patent claims that do not sufficiently teach "how to make and use the claimed invention," but instead "invoke[] a patent ineligible concept, and nothing more, to achieve the claimed result," are directed to a patent ineligible concept. American Axle reiterated Judge Moore's dissent, stating that 'the majority's Nothing More test, like the great American work The Raven from which it is surely borrowing, will, as in the poem, lead to insanity.'" Baker Botts, *supra* n. 5 (citations omitted).
[19] "With regards to American Axle's third argument, the petition explains that the entire patent system—from current and former Federal Circuit judges to current and former directors of the USPTO and the Solicitor General of the United States—agree that Section 101 is a problem that must be addressed. Relaying Judge Moore's own words, American Axle observed that the Federal Circuit has "struggled to consistently apply the judicially created exceptions to this broad statutory grant of eligibility, slowly creating a panel-dependent body of law," and, in this case, is 'bitterly divided.' Indeed, in an amicus brief filed, in part, by Former Chief Judge of the Federal Circuit Paul Michel, Judge Michel stated that: In my view, recent [Section 101] cases are unclear, inconsistent with one another and confusing. I myself cannot reconcile the cases. That applies equally to Supreme Court and Federal Circuit cases. Nor can I predict outcomes in individual cases with any confidence since the law keeps changing year after year. If I, as a judge with 22 years of experience deciding patent cases on the Federal Circuit's bench, cannot predict outcomes based on case law, how can we expect patent examiners, trial judges, inventors and investors to do so?". *Id.* (citations omitted).

4. The Court (not Congress) can and should resolve the confusion and uncertainty surrounding the Court's judicially-created exceptions.

5. This case presents the ideal vehicle for the Court to provide much-needed guidance on Section 101.[20]

Therefore, the divided and hotly contested Federal Circuit views, the conflict with pre-existing Supreme Court and Federal Circuit Section 101 cases and the numerous filed amicus briefs makes this case a much-anticipated case for all followers of patent law, especially those interested in subject matter eligibility jurisprudence.[21]

B. Means-Plus-Function Claiming

Meanwhile, the Federal Circuit this March decided *Dyfan LLC v. Target Corp.*,[22] which addressed whether the claim limitations "code"/"application" and "systems" should be construed as means-plus-function limitations under § 112(f). The case is now before the entire court on a petition for *en banc* rehearing and has attracted significant interest—notably a supporting amicus brief by nearly two dozen professors of intellectual property law.[23] The district court had held the claims invalid as indefinite under § 112(b) based on a finding that the limitations are means-plus-function limitations, and then finding that the specification fails to disclose corresponding structure. On appeal, the Federal Circuit reversed the district court's findings based on a conclusion that the disputed claim limitations are not drafted in means-plus-function format.

Dyfan involved patents on location-based triggers in mobile devices, and they disclose a communications system that provides users with information tailored to their preferences based on their physical presence, such as among different stores within a shopping center. The disputed claim limitations were (1) "code"/"application" and (2) "system." Appellee Target argued that these should be construed as means-plus-function limitations, but the district court held that § 112(f) applied to "code"/"application" and assigned a "special purpose computer function" as the corresponding structure. However, the district court found no "algorithm for the claimed special-purpose computer-implemented function" in the specification and concluded that the relevant claims were indefinite for failing to disclose corresponding structure. Meanwhile, the "system" limitations were held subject to § 112(f) because they recited purely functional language without sufficient structure." The court held that it was unclear which of the recited components perform the specified function and thus

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[20] Petition for Writ of Certiorari at 17-39, *Am. Axle & Mfg.*, No. 20-891.

[21] "While the Solicitor General has yet to file a brief explaining the views of the United States in this case, in Section 101 briefing filed in two other recent cases on certiorari before the Supreme Court, the Solicitor General agreed that Section 101 jurisprudence required greater clarity but that those cases were not an appropriate vehicle for bringing such clarity. In one brief, the Solicitor General stated that "[t]he Court should await a case in which lower courts' confusion about the proper application of Section 101 and this Court's precedents makes a practical difference. American Axle explained in its petition that the Court need not wait any longer for the appropriate case, because this case "presents both the substantive and procedural questions plaguing the lower courts." Baker Botts *supra* n. 5.

[22] 28 F.4th 1360 (Fed. Cir. 2022).

[23] Brief Amici Curiae of Intellectual Property Professors in Support of Rehearing En Banc, Dyfan, LLC v. Target Corp., No. 21-1725 (Fed. Cir., May 16, 2022), *available at* https://drive.google.com/file/d/11J-DhTwJ2YqEHgOTS8RieRsDSpJURxO3W/

concluded the relevant claims were indefinite for lack of corresponding structure.

The Federal Circuit followed a two-step means-plus-function analysis. First, one must determine whether a claim limitation is drafted in means-plus-function format. If yes, then one must determine what structure, if any, is disclosed in the specification corresponding to the claimed function. For the first step, one should consider whether the claim includes the term "means," whether the claim terms are understood by a person having ordinary skill in the art to have sufficiently definite meaning as the name for structure, and intrinsic evidence such as the claims themselves and the prosecution history as well as extrinsic evidence such as dictionary definitions.

Conversely, if claim does not recite "means," then the disputer bears the burden of demonstrating by a preponderance of the evidence that the disputed limitation fails to recite sufficiently definite structure. A single specific structure is not needed, and a class of structures may be sufficient to avoid invoking § 112(f). The court gave examples of certain terms from its own prior case law. As to the term "circuit," a person having ordinary skill in the art would believe that the term recites sufficiently definite structure, relying on a dictionary definition, thus not invoking § 112(f).[24] As to the term "user identification module," there was no indication of structure for performing the claimed function.[25]

The Federal Circuit considered only the first step and concluded that the disputed limitations do not invoke § 112(f) as they connote structure understood by a person having ordinary skill in the art. As to extrinsic evidence, Target's expert had testified, unrebutted, that "application" is a term of art that a person having ordinary skill in the art would have understood as a computer program intended to provide some service to a user. The expert also testified that a person having ordinary skill in the art would understand that "code" is a bunch of software instructions. The court explained that the structure of software code is defined in part by its function—something that is not true of mechanical inventions—allowing us to look beyond the initial "code" or "application" term to the functional language to see if a person having ordinary skill in the art would have understood definite structure. Here, the claim at issue required code that was configured to be implemented on a mobile device (1) to display information through the mobile device display, then (2) to receive information through a wireless communications protocol, and finally (3) to display visual information based on the information received. The expert testified that either a developer or a person having ordinary skill in the art could use off-the-shelf software to implement these functions. Accordingly, the court concluded that a person having ordinary skill in the art would have understood "code"/ "application" limitations to connote structure.

Meanwhile, as to the "system" limitation, the Federal Circuit explained that this term was defined in a wherein clause and referred back, via antecedent basis, to the term "system" as recited in the preamble. This, the court said, did not recite "means"—and Target did not satisfy its burden. The court found that the claim specifies the components in the system that perform the recited function—the system comprises "a building" having "a first (and second) broadcast short-range communications unit," "code" and "at least one server." The "wherein" clause did not explicitly refer to the

[24] Apex Inc. v. Raritan Comput., Inc., 325 F.3d 1364 (Fed. Cir. 2003)
[25] Rain Computing Inc. v. Samsung Electronics America, Inc., 989 F.3d 1002 (Fed. Cir. 2021).

previously recited "code," but it did refer to the specific functions that are introduced in the "code" limitations. The court did note that in a vacuum, the term "system" may be a nonce term, but concluded that on these facts, the claim language defined the "system" to include specified structure.

II. PROCEDURAL ISSUES

The next two cases of interest pertain to procedural issues: one is preclusion under the *Kessler* doctrine, and the other is appellate review of claim construction and jury decision-making. This section discusses each in turn.

A. Preclusion under Kessler

As to the first, in *PersonalWeb Technologies, LLC v. Patreon, Inc., et al.*,[26] the two main issues are: (1) whether the U.S. Court of Appeals for the Federal Circuit correctly interpreted *Kessler v. Eldred* to create a freestanding preclusion doctrine that may apply even when claim and issue preclusion do not; and (2) whether the Federal Circuit properly extended its *Kessler* doctrine to cases in which the prior judgment was a voluntary dismissal.[27] The petition for a writ of certiorari in this case was filed on April 2, 2021. Respondents Patreon Inc. et al. filed their Brief on August 23, 2021 with Petitioner PersonalWeb Technologies, LLC filing their Brief on September 3, 2021 (with a Supplemental Brief filed by Petitioner on April 21, 2022) and the only non-government amicus brief that was filed was one from CFL Technologies on May 6, 2021. An amicus brief from the United States was also filed on April 8, 2022 after the CVSG issued on October 4, 2021.[28]

On June 17, 2020, the Federal Circuit in *PersonalWeb Technologies, LLC v. Patreon, Inc., et al.* affirmed, in an unanimous majority opinion by Judge Bryson, that a decision by a district court (Judge Freeman in the U.S. District Court of the Northern District of California) to dismiss eight cases was proper due to claim preclusion and the *Kessler* doctrine – a rule barring a patent infringement lawsuit suit against the customer of a seller who had previously prevailed against a patentee in an earlier patent infringement suit stemming from the case of *Kessler v. Eldred*, 206 U.S. 285 (1907).[29] Law 360's Jasmin Jackson provides an excellent summary of the case and its developments stemming from patent holding company PersonalWeb Technologies' ("PersonalWeb") initial filing of suits against Amazon.com and its subsidiaries in the U.S. District Court for the Eastern District of Texas in December of 2011.[30]

In 2014, after the Eastern District of Texas issued its claim construction order, PersonalWeb then voluntarily dismissed its cases, which were then dismissed with

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[26] Petition for a Writ of Certiorari, No. 20-1394 (Sup. Ct., Apr. 2, 2021).
[27] SCOTUSblog, *PersonalWeb Technologies, LLC v. Patreon Inc*., https://www.scotusblog.com/case-files/cases/personalweb-technologies-llc-v-patreon-inc/ (last accessed Mar. 20, 2023).
[28] Id.
[29] PersonalWeb Tech., LLC v. Patreon, Inc., et al., No. 2019-1918 (Fed. Cir. June 17, 2020), Slip Op. at 14-15, https://cafc.uscourts.gov/sites/default/files/opinions-orders/19-1918.OPINION.6-17-2020_1605082.pdf; Dennis Crouch, https://patentlyo.com/patent/2021/10/preclusion-customer-lawsuits.html (last accessed Mar. 20, 2023).
[30] *PersonalWeb Tech.*, slip op. at 7; Jasmin Jackson, *Justices Won't Take Up Fed. Circ. Rule On Follow-Up IP Suits*, Law 360, https://www.law360.com/articles/1493590 (last accessed Mar. 20, 2023).

prejudice in an order before the court entered final judgment.[31] In January of 2018, PersonalWeb filed nearly 50 new infringement lawsuits against Amazon's customers such as Patreon Inc. and Buzzfeed Inc.[32] Amazon filed a declaratory judgment action based on the prior Eastern District of Texas cases filed and dismissed, and the Judicial Panel for Multidistrict Litigation consolidated PersonalWeb's filed Amazon customer cases and Amazon's declaratory judgment action, and assigned those consolidated cases to Judge Freeman in the Northern District of California for pre-trial proceedings.[33] Amazon then moved for summary judgement in its declaratory judgment action and partial summary judgment in PersonalWeb's infringement action against the video game streaming platform Twitch, and the Northern District of California granted that motion in part, also concluding that its ruling disposed of eight customer cases, which were then dismissed by the district court.[34]

PersonalWeb appealed the dismissal of those eight suits to the Federal Circuit, who agreed with the Northern District of California and ruled on June 17, 2020 that those suits were precluded by the *Kessler* doctrine because that rule prohibits patent infringement lawsuits against customers of a party that had prevailed in related litigation.[35]

Hence, PersonalWeb petitioned the Court to review the Federal Circuit's decision on the two issues described above, claiming that the Federal Circuit incorrectly applied the 114-year-old *Kessler* decision because the doctrine from that case should not have been applied due to how the lawsuit against Amazon was voluntarily dismissed earlier (in the Eastern District of Texas filing).[36] In their Response Brief, the Respondents argued that PersonalWeb was attempting to wrongfully overturn a precedent that was valid for over a century, and that PersonalWeb also lodged "objectively unreasonable infringement claims".[37] Moreover, in response to the CVSG, even though Solicitor General Elizabeth B. Prelogar said in the Government's April 2022 Brief that the Federal Circuit misapplied the *Kessler* doctrine, she still advised the Court not to review the Federal Circuit's ruling because doing so would not "affect the ultimate disposition of [the] petitioner's suits."[38] In a Supplemental Brief dated April 21, 2022, PersonalWeb asked the Court to ignore the recommendations made in Prelogar's brief, stating that they "downplay[ed]" the importance of the Federal Circuit's alleged erroneous ruling.[39] Solicitor General Prelogar's advice proved to be effective, as the nation's highest Court acted on it and declined to hear the case in an order list issued on May 16, 2022.

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[31] *PersonalWeb Tech.*, slip op. at 11; Jackson, *supra* n. 30.
[32] Id.
[33] *PersonalWeb Tech*., slip op. at 11-12.
[34] *Id.* at 13-14; Jackson, *supra* n. 30.
[35] *PersonalWeb Tech.*, slip op. at 15-25.
[36] Jackson, *supra* n. 30.
[37] Id.
[38] *Id.* (citing Brief for U.S. as Amicus Curiae at 9, https://patentlyo.com/media/2022/05/202204081-44608169_20-139420PersonalWeb20-20CVSG20-20final1.pdf).
[39] Jackson, *supra* n. 30 (citing Suppl. Brief for Petitioner at 4 & 7, https://www.supremecourt.gov/DocketPDF/20/20-1394/221605/20220421133754786_PersonalWeb%20Supp%20Br%20-%20efile.pdf).

B. Appellate Review of Patent Jury Verdicts

As to the second, in *Olaf Sööt Design, LLC v. Daktronics, Inc., et al.*,[40] the issue is whether the Seventh Amendment allows the U.S. Court of Appeals for the Federal Circuit to reverse a jury verdict based on a *sua sponte* new claim construction of a term the district court concluded was not a term of art and construed to have its plain and ordinary meaning; where the Federal Circuit's *sua sponte* claim construction essentially recasts a specific infringement factual question, previously decided by the jury, as a claim construction issue, to be decided *de novo* by the appellate court.[41] The petition for a writ of certiorari in this case was filed on September 16, 2021, Respondents Daktronics, Inc. et al. filed their Brief on November 12, 2021, Petitioner Olaf Sööt Design, LLC fled their Reply Brief on November 29, 2021, and an amicus brief from the United States government was filed on May 11, 2022 after the CVSG issued on January 10, 2022.[42]

The patent at issue in this case is directed to "a theater winch for moving scenery and lighting by winding and unwinding cables, which are attached to the scenery, around a drum."[43] The construed claim limitation at issue comes from claim 27 (the only claim at issue on appeal) and is element (h), which recites "h) said hollow hub and hollow drum being sized such that the screw can move into the hollow hub to allow the hollow drum to receive the screw as the cable unwinds from or winds up on the drum as the object moves to its respective down or up position".[44] The District Court did not construe element (h) and failed to resolve the parties' dispute as to the meaning of the claim, which the Federal Circuit found as a violation of the holding in *O2 Micro International Ltd. v. Beyond Innovation Technology Co*., stating that "[w]hen the parties present a fundamental dispute regarding the scope of a claim term, it is the court's duty to resolve it" – otherwise, a legal question will be "improperly submitted to the jury."[45] As a result, the Federal Circuit construed element (h) to mean that "the hollow hub is not a component of the drum" to conclude that the allegedly infringing product did not infringe claim 27 either literally or under the doctrine of equivalents.[46]

III. INSTITUTIONAL ISSUES

The last two cases of interest pertain to issues of institutional structure: one involves constitutional standing under Article III, and the other involves statutory limits on *inter partes* review as well as the court-agency separation of powers. This section discusses each in turn.

A. Standing to Appeal Inter Partes Review

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[40] Petition for a Writ of Certiorari, No. 21-438 (Sup. Ct., Sept. 16, 2021).
[41] SCOTUSblog, Olaf Sööt Design, LLC v. Daktronics, Inc., https://www.scotusblog.com/case-files/cases/olaf-soot-design-llc-v-daktronics-inc/ (last accessed Mar. 20, 2023).
[42] Id.
[43] Olaf Sööt Design, LLC v. Daktronics, Inc. (Fed. Cir. Jan. 7, 2021), Nos. 2020-1009, 2020-1034, Slip Op. at 2, https://cafc.uscourts.gov/opinions-orders/20-1009.opinion.1-7-2021_1713728.pdf.
[44] *Id.* at 5.
[45] *Id.* at 6 (citing 521 F.3d 1351, 1362 (Fed. Cir. 2008)).
[46] *Olaf Sööt Design*, slip. op. at 8-11.

As to the first, in *Apple Inc. v. Qualcomm Inc.*,[47] the controversy involves standing for an unsuccessful petitioner in *inter partes* review to appeal the PTAB's final written decision to the Federal Circuit. The question presented is whether a licensee has Article III standing to challenge the validity of a patent covered by a license agreement that covers multiple patents.[48] The petition for a writ of certiorari in this case was filed on November 17, 2021, Respondent Qualcomm Incorporated filed their Brief on January 19, 2022, Petitioner Apple Inc. filed their Reply Brief on February 1, 2022, and amicus briefs were filed by Engine Advocacy et al., Senator Patrick Leahy and Congressman Darrell Issa, Unified Patents LLC, and Thales. Finally, the CVSG issued on February 22, 2022.[49]

On April 7, 2021, the Federal Circuit ruled, in an opinion authored by (now Chief) Judge Moore, that Apple lacked Article III standing to sue Qualcomm over *Inter Partes* review ("IPR") final written decisions regarding Qualcomm's patents due to a six-year settlement agreement involving all litigation between the two companies that was entered into just before they were about to commence a long-awaited antitrust suit in a San Diego federal court.[50] In response to Apple's argument that the Court's decision in *MedImmune v.Genentech*, 529 U.S. 118, 120 (2007), dictating that ongoing payment obligations as a condition for certain rights established standing regardless of the patent involved, Judge Moore stated that "Apple has not alleged that the validity of the patents at issue will affect its contract rights (i.e., its ongoing royalty obligations)" and that this "failure is fatal to establishing standing under the reasoning of *MedImmune*, whether we analyze Apple's evidence for injury in fact or redressability."[51]

Apple petitioned the Court on November 17, 2021, urging the Court to overturn the Federal Circuit's mistaken rejection of its arguments that it had standing to appeal IPR decision upholding Qualcomm's patents due to the companies' aforementioned six-year licensing/settlement deal.[52] In its cert petition, Apple argued that the Federal Circuit's decision "unjustifiably confines *MedImmune*'s critical holding to single-patent licenses, while inexplicably decreeing a different standing rule for portfolio licensing" and urges the Court to take up its appeal because the Federal Circuit's holding was an "obvious end-run" around the *MedImmune* case's failure to make such a distinction between those two types of licenses.[53] Apple further argues that the Federal Circuit's decision "would thus undermine important public interests in encouraging challenges to questionable patents, particularly by licensees," and that "The Federal Circuit's restrictive approach to standing also undermines the public policy of ensuring that settlement of litigation does not unfairly deprive patent challengers of the ability to

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[47] Petition for a Writ of Certiorari, No. 21-746 (Sup. Ct., Sept. 3, 2021).
[48] SCOTUSblog, Apple Inc. v. Qualcomm Inc., https://www.scotusblog.com/case-files/cases/apple-inc-v-qualcomm-incorporated/ (last accessed Mar. 20, 2023).
[49] Id.
[50] Apple Inc. v. Qualcomm Inc., No. 2020-1642, https://cafc.uscourts.gov/sites/default/files/opinions-orders/20-1561.OPINION.4-7-2021_1759839.pdf, Slip. Op. at 2-3; Andrew Karpan, J*ustices Press SG For Take On Apple-Qualcomm Patent Row*, Law360, https://www.law360.com/articles/1467067/justices-press-sg-for-take-on-apple-qualcomm-patent-row (last accessed Mar. 20, 2023).
[51] *Apple*, slip op. at 7; Tiffany Hu, *Fed. Circ. Says Qualcomm Deal Dooms Apple's PTAB Appeals*, https://www.law360.com/articles/1372942 (last accessed Mar. 20, 2023).
[52] Tiffany Hu, *Apple Tells Justices It Has Standing In Qualcomm Patent Fight*, https://www.law360.com/articles/1442462/apple-tells-justices-it-has-standing-in-qualcomm-patent-fight (last accessed Mar. 20, 2023).
[53] Id.

demonstrate patent invalidity."[54]

Most recently, on February 22, 2022, the Court issued its CVSG, and in response to Apple's arguments above, Qualcomm contended that Apple has failed to present any concrete evidence it would suffer any concrete harm from the continued existence of the two patents it challenged their IPRs.[55] Qualcomm potentially has a lot riding on the outcome of this case, since the company tells investors that "10% or more" of the company's $33.6 billion in revenue last year came from its deals with Apple. The case has also attracted attention from the likes of Senator Leahy and the French Aerospace Giant the Thales Group in the form of amicus briefs, so it is another much-watched-and-anticipated potential Supreme Court case involving patent law.

B. PTAB Trials and the Court-Agency Separation of Powers

As to the second, in *Baxter Corp. Englewood v. Becton, Dickinson & Co.*,[56] the issues were the permissible scope of expert evidence in *inter partes* review and the applicability of the ordinary remand rule to resolving contested patentability questions on appeal from the PTAB. Following the respondent's initial waiver of its right to respond, the Supreme Court issued a request for response, signaling at least potential interest in the case, as a practical matter, extending the deadline for amici to weigh in on the cert-worthiness of the petition. The Court ultimately denied certiorari on April 5, with Justice Alito taking no part in considering or deciding on the petition.

If granted, *Baxter* would have been the Supreme Court's seventh PTAB-related case in as many years, starting with *Cuozzo v. Lee*[57] in 2016 and continuing most recently with *United States v. Arthrex*[58] in 2021. The statutory design of AIA trial proceedings in the PTAB provide for *inter partes* review to challenge patents without restrictions on technology area (as covered business method review did) and without regard for whether the patent was issued under the first-inventor-to-file provisions of the AIA (as post-grant review does).[59] However, *inter partes* review does limit the available statutory grounds and prior-art evidence on which challenges can be made: "A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications."[60]

This foregrounded the first dispute in *Baxter*, on whether it was appropriate to allow petitioners to rely on expert testimony "to fill in gaps in the prior art" when challenging patent claims.[61] Indeed, there was a dispute in the briefing over whether this was even a fair characterization of the PTAB's permissiveness—or, for example, whether the Board was allowing petitioners to use expert testimony merely in

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[54] Id.
[55] Karpan, *supra* n. 50.
[56] Petition for a Writ of Certiorari, No. 21-819 (Sup. Ct., Nov. 30, 2021).
[57] 136 S. Ct. 2131 (2016).
[58] 141 S. Ct. 1970 (2021).
[59] 35 U.S.C. § 311(a).
[60] *Id.* § 311(b).
[61] Petition for a Writ of Certiorari, *supra* note 56, at i.

illustrating or interpreting the content of prior art that was otherwise admissible.[62]

The second dispute in *Baxter* was whether the Federal Circuit was right in "resolving contested issues of patentability on appeal from Board decisions—rather than remanding those issues for the agency to decide in the first instance—violates the 'ordinary remand rule.'"[63] This, too, was a disputed characterization. Baxter argued to apply the *Chenery* doctrine that "a reviewing court, in dealing with a determination or judgment which an administrative agency alone is authorized to make, must judge the propriety of such action solely by the grounds invoked by the agency."[64]

On this view, the Federal Circuit's resolution of an issue such as obviousness on any grounds other than what the PTAB had decided in the first instance, would violate the separation of powers. Becton, Dickinson argued in response that the Federal Circuit "unquestionably has the power to review the Board's decision to assess its compliance with governing legal standards de novo and its underlying factual determinations for substantial evidence." [65] Becton, Dickinson added the particular question of obviousness is ultimately a "legal determination that a court is competent to make."[66] Though the denial of certiorari limits the impact of the *Baxter* case, the issues raised remain highly salient to administrative litigation in the PTAB.

CONCLUSION

The cases discussed here reflect only the most visible recent judicial developments in patent law. Other cases, particularly among the Federal Circuit's recent reported decisions, have also addressed a range of important issues within the context of patents directed to inventions in the computers and electronics space. These issues include, among others, written description and indefiniteness, [67] claim construction and obviousness,[68] the effective scope of prosecution disclaimer for claim construction,[69] effect of claim construction on damages and the admissibility of expert testimony on damages arising from a term license,[70] and construing the word "and" to mean "or"[71]— within the context of patent directed to computers and electronics-related inventions. Beyond the high-profile pending cases that we have addressed, we encourage the reader to stay apprised of these further precedential panel opinions as well.

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[62] Brief in Opposition, Baxter Corp. Englewood v. Becton, Dickinson & Co. 1–2, No. 21-819 (Su p. Ct., Mar. 18, 2021).
[63] Petition for a Writ of Certiorari, *supra* note56, at i.
[64] *Id.* at 26 (citing SEC v. Chenery Corp., 332 U.S. 194, 196 (1947)).
[65] Brief in Opposition, *supra* note 62 (citing Oil States Energy Servs., LLC v. Greene's Energy G rp., LLC, 138 S. Ct. 1365, 1371 (2018)) (internal quotations omitted).
[66] *Id.* at 3, 21 (citing KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 427 (2007)).
[67] Fleming v. Cirrus Design Corp., 28 F.4th 1214 (Fed. Cir. 2022) (on appeal from PTAB determi nations about claims amended during *inter partes* review).
[68] Quanergy Systems, Inc. v. Velodyne Lidar USA, Inc., 24 F.4th 1406 (Fed. Cir. 2022) (also on appeal from *inter partes* review).
[69] Genuine Enabling Technology LLC v. Nintendo Co., Ltd., 29 F.4th 1365 (Fed. Cir. 2022) (on appeal from district court claim construction and summary judgment of non-infringement).
[70] Apple Inc. v. Wi-LAN Inc., 25 F.4th 960 (Fed. Cir. 2022) (on cross-appeals from renewed trial followed by denial of a motion for judgment of no damages).
[71] Michael Kaufman v. Microsoft Corp., No. 21-1634 (Fed. Cir. 2022) (on appeal from district court claim construction and infringement)

LEGAL PROFESSIONS, MERCHANT ASSOCIATIONS, AND THE "CUSTOMARY LAW" ISSUE IN QING CHINA

Pengsheng Chiu; trans., by Heng Du & Xiaoyu Gao*

Abstract: Scholars have debated whether "customary law" existed in Qing Dynasty China, leading to different stands and arguments between "societal-centric" and "legal-centric" views. This issue involves disputes in the definition of terms and the recognition of historical facts by researchers. This paper primarily focuses on some commercial litigation cases in the Jiangnan region (the Lower Yangzi Delta) of the Qing Dynasty, narrowing the issue of "customary law" to the evolution of the interaction between Qing Dynasty commercial customs and national law. The paper argues that while we may not need to describe this evolution in terms of "customary law" as understood in European legal scholarship, we should not overlook the specific processes in various industrial and commercial towns of the time, where "customary practices" transformed into "customary rules".

Keywords: Merchant Groups; Legal Experts; Customary Rules; Customary Law

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INTRODUCTION

In many regions throughout history, including traditional China and the modern West, "law" has never been confined solely to "state law"—laws enacted and enforced by the government for judicial decisions. Moral principles, customs, and other social norms can also influence and integrate into state law through various interpretive mechanisms to varying degrees. However, even if state law cannot encompass the entire content of law, for many jurists, state law—whether codified or based on case law—backed by the explicit force of government, is often seen as more significantly constituting the primary substance of law compared to "folk law" comprised of morals, customs, and customary law.[1] Despite the evident and widespread influence of state law, scholars who recognize "legal pluralism" today, while critiquing the "legal-centric" viewpoint that overemphasizes the importance of state law and stresses the influence of social norms from non-governmental sectors, cannot deny the significant role of state law in initiating and facilitating social change.[2]

Regardless, while state law is crucial, the analysis of legal phenomena cannot neglect or undervalue folk law, which includes morals, customs, or customary law. When we describe the relationship between folk law and state law, the focus should not be solely on whether morals and customs influence the creation of state law. Rather, we should delineate how the interaction between folk law and state law evolves with the changing conditions of time and space. Fundamentally, this poses an intellectual challenge to scholars: how to discern the boundaries and the interplay between state law and folk law when analyzing legal phenomena.

Taking the interaction between "custom" and law as an example, many jurists prefer to use "legal validity" as the main criterion for assessing significance. They first define custom as a "source of law" for state law and then, based on the presence and strength of legal validity, categorize the legal effect of customs on state law into three distinct categories: absolutely invalid, absolutely valid, and relatively valid, thus forming three legal perspectives.[3] The so-called "sources of law", along with the associated notions of absolute invalidity, absolute validity, and relative validity, are seen in this article as a discourse model attempting to grasp the dynamic relationship between folk law and state law.

However, to consider custom as a source of state law or to define the relationship between the two in terms of "absolute invalidity, absolute validity, and relative validity" represents a discourse model that primarily reflects the perspective of legislators or

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[1] The concept of "folk law" is borrowed from ZHIPING LIANG, QING'S CUSTOMARY LAW: THE S OCIETY AND THE STATE [QINGDAI XIGUANFA: SHEHUI YU GUOJIA] (1996 ed.).

[2] Sally Falk Moore, *Certainties Undone: Fifty Turbulent Years of Legal Anthropology, 1949-19 99*, *in* LAW AND ANTHROPOLOGY: A READER 357 (2005).

[3] Jurists of the 19th and 20th centuries held at least three distinct positions regarding whether 'custom' could constitute a 'source of law' for state law: the theories of absolute invalidity, absolute validity, and relative validity. To this day, while there remain scholars who insist that 'custom' is not 'law', the prevailing view among mainstream jurists is that, even under the modern advancement of legislative and judicial bodies,' custom (still) forms continuously due to the needs of the people, offering supplemental provisions to existing legal norms and even playing a defining role in judicial proceedings.' For related discussions and citations, see Yuansheng Huang, Judgements of Civil Litigations by the Central Judiciary, in Legal Evolutions and Judgments in the Early Republic 404-405 (2000).

adjudicators. It essentially provides a static analysis at a specific moment, focusing on what the legal validity of a custom is. Such static analysis does not consider when and under what circumstances customs enter (or are excluded from) the temporal and spatial environment of state law, and it presupposes that the main parties involved in judicial proceedings have a clear understanding and established stance on the boundaries between custom and state law when faced with specific cases.

The interaction between custom and state law is not static; moreover, in many regions prior to the rise of modern jurisprudence, judicial officers or jurists, who had the authority to interpret the boundaries between state law and custom, were not always able to make clear distinctions for "customs" that were not clearly regulated by codes or precedential decisions. It can be said that when officials encountered a 'custom' prevalent in civil society or the commercial sector, how to position and adjust its relationship with state law was often a process filled with doubts, discussions, debates, and gradual learning. Taking Qing Dynasty China's judicial officers as an example, when faced with cases involving the negotiation between custom and state law, they did not necessarily always hold a clear stance. Nor did they inevitably adopt the argument whether custom was a "source of law" for state law. Of course, it was even more difficult to clearly articulate the legal perspectives of absolute invalidity, absolute validity, or relative validity.

In the actual historical process, there often exists a dynamic relationship between custom and state law, where judges weigh the specifics of each case, and the judged engage in various public discourses and private actions to lobby and attempt to influence the judge. This dynamic interplay between custom and state law is difficult to capture in discussions of "sources of law"; therefore, such discourse resembles a more simplistic static analysis, generally meaningful only to jurists in a specific historical and spatial context.[4] This article contends that to articulate the relationship more dynamically between custom and state law, it is necessary to move beyond juristic "source of law" debates framed in terms of absolute invalidity, absolute validity, and relative validity, and return to the specific social contexts that influence legal operations and judicial proceedings across different times and spaces.

How did state law in Qing Dynasty China interact with custom? The dynamic interrelationship of various factors such as officials, private secretaries (*muyou* 幕友), jurists, and the actions of individuals or collectives involved in cases, as well as the behind-the-scenes involvement of litigation agents, how did these influence the interplay between custom and state law at the time? This is the main issue this article attempts to illustrate; concurrently, the discussion of the interaction between state law and custom also directly involves the academic debate over whether there was "customary law" in Qing Dynasty China, which this article will discuss as well. Taking Suzhou, the most developed city in industry and commerce at the time, as the primary space for discussion, this article focuses on some existing commercial case materials in Suzhou. It comprehensively considers the roles of individual "legal experts" such as

[4] How can we transcend discussions of "sources of law" to debate issues of "custom" and "customary law" more intricately? Some scholars have attempted to explore this by integrating perspectives from law, history, and philosophy. For reference, see THE NATURE OF CUSTOMARY LAW: LEGAL, HISTORICAL AND PHILOSOPHICAL PERSPECTIVES, (Amanda Perreau-Saussine & James Bernard Murphy eds., 2009).

private secretaries (*mu you*) and litigation agents (*song shi*) and the roles of "merchant associations" such as guilds (*hui guan*) and administrative offices (*gong suo*), to reveal the dynamic relationship between commercial customs and state law in the commercial sphere at the time, and to provide some discussable examples for the issue of "customary law" in Qing Dynasty China.

I. THE QUESTION OF DEBATE: FROM "CUSTOMS" TO "CUSTOMARY LAW"

Few scholars deny that "custom" played a role in the operation of traditional Chinese law,[5] but whether there was "customary law" in Qing Dynasty China is quite controversial among them. The crux of the dispute not only pertains to the definition of the foreign term "customary law" but also concerns the historical fact of whether the phenomenon of customary law existed in traditional China. The following will briefly explain the issues at two different levels: the definition of terms and the recognition of historical facts.

As early as the beginning of the 20th century, when Western jurisprudence was introduced to China, scholars attempted to distinguish the difference between "custom" and "customary law," stating: "Under certain conditions, 'custom' possesses the force of law and becomes 'customary law.'"[6] The distinction between "custom" and "customary law" based on the presence of "legal effect" may sound reasonable to many jurists; however, if we take the position that only compulsory force recognized by government judicial authorities qualifies as "legal effect," does "law" not then become synonymous with "state law"? In some sense, defining "legal effect" is just as difficult and complex as defining "law" itself. Using it as a criterion to scrutinize "custom" and "customary law" might still fall into circular reasoning, hardly effective in clarifying the issue.

Let's consider the views of scholars who deny the existence of "customary law" in traditional China. Shuzo Shiga has already asserted that there was no "customary law" or "custom as a source of law" in Qing Dynasty China: "According to my examination of historical materials, I have not found a single case where social norms

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[5] Shuzo Shiga contends that Qing Dynasty judicial officials did not regard "custom" as a "source of law" but rather as an alternative integrated within "reasonableness". The judicial adjudication of civil disputes in the Qing Dynasty was, in fact, a form of "mediation" and not a set of rules with a private law character (see Shuzo Shiga: "A Study of the Civil Law Sources in the Qing Dynasty Litigation System – Custom as a Source of Law," ["Qingdai Susong Zhidu zhi Minshi Fayuan de Kaocha—Zuowei Fayuan de Xiguan"], in Shuzo Shiga, *A Study of the Civil Law Sources in the Qing Dynasty Litigation System – Custom as a Source of Law [Qingdai Susong Zhidu zhi Minshi Fayuan de Kaocha—Zuowei Fayuan de Xiguan]*, *in* CIVIL ADJUDICATION AND PRIVATE CONTRACTS IN THE MING AND QING PERIODS 54 (Yixin Wang & Zhiping Liang eds., 1998).) Shuzo Shiga's view on this issue can also be found in other comprehensive summaries by scholars, such as Yuansheng Huang, *The Civil Adjudication of the Dali Court and Folk Custom*, *in* LEGAL CHANGES AND ADJUDICATION IN THE EARLY REPUBLIC 370 (2000). On the surface, Shuzo Shiga denies the role of 'custom' in the adjudication of Qing Dynasty China, but in reality, he merely emphasizes that the role "custom" played in Qing Dynasty Chinese adjudication is different from that in the West. It is a type of "reasonableness and mediation" rather than "private law rules", which does not imply that custom was ineffectual in traditional Chinese adjudication.

[6] Yuansheng Huang, *Trials of Civil Litigations by the Central Judiciary at the Daliyuan [Daliyuan Minshi Shenpan yu Minjian Xiguan]*, *in* LEGAL EVOLUTIONS AND JUDGMENTS IN THE EARLY REPUBLIC 390 (2000).

referred to in legal studies as 'customary law'—that is, norms with general binding force—were clearly adjudicated based on such norms; a close examination of terms such as 'local custom(*feng* 风俗), conventional practice(*feng li* 风例), local regulation(*tu li* 土例), local tradition (*tu feng* 土风)'occasionally found in local official judgments reveals that these terms do not imply 'custom as a source of law.'"[7] The discussion by Jérôme Bourgon is more detailed, but his conclusion is quite similar to that of Shuzo Shiga: customary law is a product of a specific historical context in modern European history, reflecting the conscious collective effort of a group of European legal experts who, by refining specialized terminology, aimed to systematize or codify various commercial contracts and property rights behaviors among the populace. By contrast, Qing Dynasty Chinese local officials and jurists such as private secretaries rarely engaged in the "systematization" or "codification" of commercial contracts and property rights customs. They often maintained an attitude of transforming popular customs through legal or Confucian doctrines, a so-called "changing customs and habits" approach, which stands in stark contrast to the basic attitude of modern European jurists who respected folk customs and engaged in investigation, collection, and the aspiration to incorporate folk customs into state law. For this reason, Bourgon argues against applying the potentially misleading European legal term "customary law".[8]

It can be said that in the view of Shuzo Shiga and Jérôme Bourgon, "customary law" is a term historically rooted in the legal history of Europe, carrying a specific referential meaning, essentially referring to "custom as a source of law", and cannot be applied indiscriminately. Not only is the term derived from specific Western legal terminology and thus not applicable but in terms of the recognition of historical facts, both Shuzo Shiga and Bourgon believe that customary law did not appear in Qing Dynasty China. In their view, the key difference between modern Western and Qing Dynasty Chinese customary law lies in the following historical fact: until the Qing Dynasty, there had not emerged a group of legal experts capable of bridging the potential differences between folk customs and state-enacted laws; the existence of this difference can be verified through the surviving civil and commercial legal case records of the Qing Dynasty.

However, for scholars who believe that the term "customary law" can also be applied to Qing Dynasty China, the aforementioned negation deserves scrutiny. Liang Zhiping's definition of "customary law" differs significantly from the above: "Typically, when scholars discuss customary law, they simply regard it as the equivalent of what is now referred to as civil law", because traditional Chinese law barely covers regulations for "marriage, property division, inheritance, buying and selling, leasing, mortgaging, lending, and other" affairs. Therefore, "customary law" within folk law often compensates for these deficiencies, enabling the life of civil society (especially its economic life) to be possible; the "tremendous population growth" during the Ming and Qing dynasties further allowed the customary law of the Qing era to "achieve its fullest

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[7] Shuzo Shiga, *Investigations in Legal Origins on the Folk Level in Qing China's Institutional Lit igation—Customs for Legal Origins*, *in* FOLK JUDGMENTS AND CONTRACTS DURING THE MING AND QING DYNASTIES 55 (Yixin Wang & Zhiping Liang eds., 1998 ed.).

[8] Jérôme Bourgon, *Uncivil Dialogue: Law and Custom Did Not Merge into Civil Law under th e Qing*, 23 LATE IMP. CHINA 50 (2002).

development and expression."[9] Liang's understanding of Qing Dynasty customary law clearly differs from the "negation" view. He even uses terms such as 'custom, conventional practice, local regulation, local tradition,'which Shigehisa viewed as evidence of the non-existence of customary law in Qing Dynasty China, to argue the opposite: "Formally, customary law is manifested as village regulations (*xiangli* 乡例), customary practices (*suli* 俗例), village rules (*xianggui* 乡规), local regulations (*tuli* 土例)"; for example, "village regulations" found in Qing judicial archives were developed through "long-standing living practices," and served as norms that guided and constrained the productive, living, and trading activities of the villagers.[10]

Liang Zhiping clearly does not define customary law from the perspective of adjudicators or jurists but rather adopts an analytical viewpoint based on the "thoughts, desires, rationality, and emotions" of the social populace.[11] We might call this a "sociocentric" approach. Liang's focus is neither on whether adjudicators encounter customs that can "serve as a source of law" during mediation or judgment, as Shuzo Shiga examines, nor is it on whether officials and jurists can "systematize" or "codify" commercial contracts and property rights customs, as Jérôme Bourgon emphasizes. Liang explicitly opposes the idea of viewing customary law as "an extension and concretization of state codification."[12] He also differentiates between custom and customary law: "Ordinary customs are just the routinization of life, the patternization of behavior; customary law, in particular, relates to the allocation of rights and duties, and the adjustment of conflicting interests." He thus summarizes his definition of customary law: "Customary law is a set of local norms gradually formed through the long-term living and working processes of villagers," which, although "not written down, does not lack effectiveness and certainty" because "it is implemented within a network of relationships, its efficacy comes from the villagers' familiarity with and trust in this local knowledge, and it is mainly maintained by a public opinion mechanism related to a particularistic relational structure"; recognition and support from officialdom "help to strengthen its effect, but they are not the most fundamental characteristic of what makes customary law."[13]

Liang's definition of customary law actually includes his recognition of historical facts regarding the relationship between folk customs and state law in Qing Dynasty China; and whether it is in terms of terminological definition or recognition of historical facts, Liang's views are markedly different from scholars who deny the existence of customary law in China.

While not defining customary law based on the "thoughts, desires, rationality, and emotions" of the social populace, Jonathan Ocko, without explicitly opposing the "legal-centric" analytical perspective that focuses on examining the efficacy of customs within state law, still asserts that there was customary law in Qing Dynasty China. Ocko believes that in some local government courts of the Qing Dynasty, officials indeed integrated folk contracts into judicial mediation and adjudication; thus, officials at the prefecture and county levels played a role in transforming "customary practices" into

[9] LIANG, *supra* note 2.
[10] *Id.* at 38.
[11] *Id.* at 58.
[12] *Id.* at 152.1
[13] *Id.* at 165-6.

"customary rules." [14] Consequently, in Qing Dynasty China, particularly in commercially developed prefectures or towns, the term "customary law" can still be used to describe the continuous evolution of contracts and property rights within the Chinese legal system at the time.

Above all, the debate about whether there was "customary law" in Qing Dynasty China touches on at least two aspects: firstly, in terms of terminological differences: Liang Zhiping's "sociocentric" approach differs from the "legal-centric" approach of other scholars. Secondly, in terms of the recognition of historical facts: Can Jonathan Ocko's "customary rules" be equated with what Shuzo Shiga refers to as "custom as a source of law"? Can the process by which some local officials in Qing Dynasty China transformed "customary practices" into "customary rules" be likened to what Jérôme Bourgon describes as the "systematization" or "codification" of commercial contracts and property rights customs by legal experts?

In the face of these two issues—definition of terms and determination of historical facts—this article will focus on Suzhou, the most commercially developed city in China from the 16th to the 19th century, as the main space for discussion. It will analyze how merchant groups such as local guilds and chambers, as well as legal litigators and private secretaries, intervened in some commercial dispute cases. It will examine how the so-called "customary rules" emerged from the long-term interaction between merchant groups and local government offices, thereby investigating the issue of "customary law" in Qing Dynasty China.

II. COLLECTIVE ACTIONS OF MERCHANTS AND WORKERS IN SUZHOU

If we do not confine the interaction between custom and state law to a narrowly defined "legal-centric" research perspective, the understanding of the local social economic structure and material life changes will become highly relevant to the analysis of legal phenomena. Even if it does not closely approach Liang Zhiping's described examination of the local populace's "thoughts, desires, rationality, and emotions," it can at least provide some important background to the specific living environment of the local people. Therefore, before analyzing the interaction between commercial customs and state law in Qing Dynasty Suzhou, this section will provide some basic background on the development of long-distance trade in China from the 16th to the 19th century, and how Suzhou became the most developed city in commerce and industry during that period, attracting a large number of merchants and workers from other regions.

Suzhou's central position in the industry and commerce of Qing Dynasty China is closely linked to the growth of long-distance trade within China from the 16th to the 19th century. Long-distance trade within China began to develop more clearly from the 16th century, and by the mid-18th century of the Qing Dynasty, the basic framework of long-distance trade formed by three main commercial routes was very prominent: the first was the east-west route formed by water transportation along the lower, middle, and upper reaches of the Yangtze River; the second was the north-south route made up

[14] Jonathan K. Ocko, *The Missing Metaphor: Applying Western Legal Scholar to the Study of Contract and Property in Early Modern China*, *in* CONTRACT AND PROPERTY IN EARLY MODERN CHINA 191 (Jonathan K. Ocko, Madeleine Zein, & Robert Gardelle eds., 2004).

of the Beijing-Hangzhou Grand Canal and Gan River combined with the overland route of the Dayu Mountain (dayuling 大庾岭); the third main route was the coastal shipping line from the northeast to Guangzhou. Within this national market, merchants formed different commercial guilds to engage in long-distance trade, with staples such as rice, cotton cloth, and salt being the most traded commodities, changing the commodity structure of long-distance trade in Chinese history that had previously been dominated by luxury goods. At the same time, although food still accounted for the largest proportion of commodities in the national market during the early Qing Dynasty, cotton cloth had replaced salt to become the second-largest commodity and the largest industrial product.[15] This structural change in long-distance trade also reflected the increased degree of agricultural commercialization, the growth in handicraft production, and the number of commercial towns in the early Qing Dynasty, with these new economic growth phenomena being most prominent in the Jiangnan region. Jiangnan enjoyed a superior commercial transportation location, situated within the belt of the three main long-distance trade routes of the Yangtze River, the Grand Canal, and the coastal route, with Suzhou being the economic center of Jiangnan.

During the Qianlong period (1736~1796), Shen Yu once specifically described Suzhou's central commercial position: "The Yangtze River winds to the northwest, and the great sea encircles to the southeast, with Suzhou County at the heart. Precious products from the mountains and seas, goods and shells from foreign countries, come and go from all directions. The merchants from thousands of miles away shoulder to shoulder, bustling."[16] Suzhou, with the superior water transport conditions provided by the Yangtze River and the coast, allowed a large number of domestic and foreign products to be concentrated in Suzhou through water transport; in addition, the Grand Canal, which also functioned as "south-to-north grain transfer and south-to-north cargo transport," took Suzhou as the transfer center. Coupled with the dense water transport network in the Taihu Lake area near Suzhou, it not only reduced the transportation costs of agricultural and industrial products from the Taihu Lake basin but also expanded the marketing hinterland for local agricultural and industrial products. Suzhou, located in the center of the Taihu Lake basin and also at the junction of the south-north Grand Canal and the Lou River (now Liu River), enjoyed the convenience of both inland waterway transportation and maritime traffic.[17]

Through the Lou River, Suzhou merchants could travel northeast to the neighboring Taicang County (Taicangzhou), and then directly connect to the overseas market through the port of Taicang. As early as the 17th century, Taicang was known as the "head of six countries," with frequent maritime trade with Ryukyu, Japan, Annam, Siam, and Korea, making it an important overseas trade port for Suzhou.[18] This is similar to the description of Suzhou's merchandise being widely sold domestically and overseas in the 27th year of the Qianlong era (1762): "Suzhou is a major metropolis of the southeast, where merchants radiate in all directions, and a myriad of goods are amassed. From the imperial capital to the far reaches of Guangdong, and even to the

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[15] CHENGMING WU, CHINESE CAPITALISM AND DOMESTIC MARKETS [ZHONGGUO ZIBENZHUYI YU GUONEI SHICHANG] (1985 ed.).
[16] Huang, *supra* note 7.
[17] CHONGLAN FU, THE DEVELOPMENTAL HISTORY OF CHINESE CITIES ADJACENT TO CANALS [ZH ONGGUO YUNHE CHENGSHI FAZHANSHI] (1986 ed.).
[18] 1 Book A GUANGZU ZHENG, YIBANLU (1990 ed.).

various oceans overseas, ships sail to all destinations,"[19] with Beijing to Guangzhou, and even the Northeast and Southeast Asia, being export regions for Suzhou's goods. The developed domestic and international trade attracted many foreign and local merchants to Suzhou.

Compared to local merchants, foreign merchants were all considered "guest merchants." In the early Qing Dynasty, numerous guest merchants came to Suzhou from many different parts of the country. From nearby regions, there were merchants from the Dongting region of the Taihu Lake area. Those from farther away came from places within Jiangsu such as Changzhou Prefecture, Zhenjiang Prefecture, Yangzhou Prefecture, Xuzhou Prefecture, Tongzhou, and Haizhou; from Anhui like Huizhou Prefecture and Ningguo Prefecture; from Zhejiang like Ningbo Prefecture and Shaoxing Prefecture, as well as from Jiangxi and Huguang. Even further afield, there were merchants from places in Fujian like Fuzhou Prefecture and Zhangzhou Prefecture; from Guangdong like Chaozhou Prefecture, Guangzhou Prefecture, Jiaying County, and Zhangde Prefecture; and to the north, there were merchants from Shandong, Shanxi, and Shaanxi.[20] These merchants from different regions operated many different industries in Suzhou. Facing these groups of merchants from different places and industries, they were also referred to as "guest guilds"at that time. Until the late Qing Dynasty, the guest merchants were still mostly concentrated in the Changmen area in the northwest suburbs of Suzhou city, described by the people of the time as "a place where guest guilds stand in great numbers," including various guilds carrying on business in connection with the following places or trades: "Xianbang 鲜帮 (merchants mainly engaged in aquaculture business), Jingzhua 京庄(merchants mainly conducting business in relation to the Beijing trade), Shandong, Henan, Shanxi, Hunan, Taigu, Xi'an, Wenzhou and Taizhou... the Yangtze River trade, and so on," totaling "no less than a dozen guilds,"[21] all constituting the numerous foreign commercial populations gathered in Suzhou during the Qing Dynasty.

The development of domestic long-distance trade and foreign maritime trade not only brought many foreign merchants to Suzhou but also formed quite a few sizable handicraft industries. Such industries as silk weaving, cotton cloth dyeing, calendering and finishing, as well as papermaking, printing, smelting, copper and tin, steel saws, gold leafing, gold and silver threads, lacquer work, mahogany fine woodwork, mahogany dressing, candles, clocks, embroidery, glasses, and others were well-known handicraft industries in Suzhou during the Qing Dynasty.[22] These industries not only

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[19] Suzhou History Museum, *Shaanxi Guild Stele Inscription*, *in* COLLECTION OF SUZHOU INDUSTRIAL AND COMMERCIAL EPIGRAPHIC MATERIALS [SUZHOU GONGSHANGYE BEIKE ZILIAOJI] (HEREINAFTER REFERRED TO AS "SUZHOU EPIGRAPHY") 331, 331 (1981 ed.).

[20] Jinmin Fan, *Active Immigrant Merchants in Suzhou during the Ming and Qing Dynasties [Mingqing Shiqi Huoyueyu Suzhou de Waidishangren]*, 4 *in* RESEARCH ON CHINESE SOCIOECONOMIC HISTORY [ZHONGGUO SHEHUIJINGJISHI YANJIU] 39 (1989).

[21] Suzhou Archives Bureau, *Additional Information for the Total Number of Items in Yunjin Administrative Office [Yunjin Gongsuo Geyao Shumu Buji]*220 (1989 ed.).

[22] BENLUO DUAN & QIFU ZHANG, HISTORY OF SUZHOU'S HANDICRAFTS (1986 ed.).

gathered many merchant bosses but also accommodated numerous workers.[23] Among them, the largest industrial capital scale introduced by Suzhou merchants was still in silk weaving and cotton textile processing industries, especially the cotton textile processing shops (*zihao* 字号) run by merchants from Fujian and Anhui, as well as the accounting agencies (*zhangfang* 账房) opened by silk industry merchants from Zhejiang and other places. Both operated handicraft production with a "commissioning system" and a "quality inspection and acceptance" system.[24] Both the cotton and silk handicraft industries brought more employment opportunities for numerous local and foreign craftsmen in Suzhou, significantly increasing the total number of workers in the city.

Since the early 17th century, there have been numerous strikes by cotton cloth workers in Suzhou, leading the government to conduct detailed investigations into the cotton cloth brands (workshops) in Suzhou city and the number of workers they employed. For instance, in the first year of the Yongzheng era (1723), the report by Suzhou Weaving Commissioner Hu Fengzhang stated that the cotton cloth brands he saw were mostly opened and operated by Fujianese merchants: "Around Changmen and Nanmo, merchants come and go, mostly people from Fujian." As for the cotton cloth workers, who also gathered near Changmen, they were: "Dyers, calender workers (踹布工匠 *chuanbu gongjiang*), all of whom are people from Jiangning, Taiping, and Ningguo, who, without family in Suzhou, total about twenty thousand."[25] This indicates that the majority of cotton cloth workers from Nanjing and the prefectures of Taiping and Ningguo in Anhui came to Suzhou alone, hence "without family in Suzhou."[26] In the seventh (1729) and eighth years (1730) of Yongzheng, Li Wei conducted two further surveys. The first survey mentioned that the number of calendering cloth workers in the Changmen area of Suzhou had reached "over ten thousand"; the second report was more detailed, recording that there were over 450 calender workshops (踹坊 *chuaifang*) in Suzhou city at the time, with about 340 "bosses (or contractors)" (包头 *baotou*) who opened the workshops. Depending on the size, each calender workshop employed "a varying number of dozens of workers." According to Li Wei's estimate, there were about "nineteen hundred" calendering cloth

[23] The metalworking industry in Suzhou employed numerous craftsmen from outside the area. Hist orical materials from the sixth year of the Qianlong era (1741) state that "many of the craftsmen employed in the Suzhou foundries" came from the neighboring counties of Wuxi and Jingu (from "Suzhou Epigraphy," page 154). Another survey during the Daoguang era also indicated: "In the western part of the county today, there are no less than several thousand households engaged in c opper work. They are skilled in making all kinds of fine and large objects used daily," as seen in 18 YUYU SHI, SUZHOU PREFECTURE GAZETTEER (1824).

[24] BOZHONG LI, EARLY INDUSTRIALIZATION IN REGIONS SOUTH OF THE YANGTZE [JIANGNAN DE ZAOQI GONGYEHUA] (1550-1850) (Di 1 ban, di 1 ci yin shua ed. 2000).

[25] Emperor Yongzheng's Edict Approved via Vermilion Stamp [Yongzheng Zhupi Yuzhi], (196 5).

[26] As early as the ninth year of the Kangxi reign (1670), historical records already mentioned that many calendering cloth workers "came from the counties under the jurisdiction of Jiangning to w ork as hired laborers"; and by the thirty-second year of Kangxi (1693), records also noted that ma ny of the calendering cloth workers in Suzhou were "not natives with family land" (from "Suzhou Epigraphy," pages 54 and 55), all indicating that these cotton cloth workers primarily came from outside areas to Suzhou on their own to make a living, without their family.

workers in Suzhou city at that time.[27]

It should be noted that Li Wei's surveyed figure of "over ten thousand" cotton cloth workers did not include all the workers involved in the processing and production of cotton cloth organized by the cotton cloth brands, such as "bleaching, dyeing, inspecting, and distributing cloth," especially "dyers" who might not be within Li Wei's survey scope. According to other records, there were at least sixty-four dyeing workshops in Suzhou city around the fifty-ninth year of Kangxi (1720);[28] even if each workshop employed fewer workers than the "varying number of dozens" in the calendar workshops, a conservative estimate of ten workers per workshop would mean that there were more than six hundred workers in dyeing workshops alone. Hu Fengzhang's records should include the total number of workers in dyeing workshops and other cotton-related workers, hence his figure of "over twenty thousand" is much larger than Li Wei's "nineteen hundred." Even if we assume that Hu's figures are exaggerated, a conservative estimate will still place the total number of workers employed in related industries such as calendering and dyeing in early 18th-century Suzhou at well over ten thousand. And at roughly the same time, the total population of Suzhou city was estimated to be around five hundred thousand, so just the cotton industry workers alone accounted for one-fiftieth of the city's population.

The development of the cotton, silk weaving, and other handicraft industries gathered a large number of workers in Suzhou city, and the sheer number of workers provided the basic conditions for the increasingly frequent strikes in Suzhou. The cotton cloth industry had the most workers and the most frequent strike activities; as for other industries, records of strikes are also numerous. According to incomplete statistics, from the ninth year of Kangxi (1670) to the twenty-fifth year of Daoguang (1845), Suzhou experienced at least nineteen incidents of artisan resistance, strikes, or complaints against workshop owners and merchants, most of which were related to wage disputes; among them, the calendaring cloth industry had ten incidents, the silk weaving industry had two, the paper dyeing industry had five, and the book printing industry had two.[29] Adding the two incidents in the foundry industry during the fourth year of Qianlong (1739) and the sixth year where "craftsmen interfered and pettifoggers caused harm to the people," as well as the incidents involving candle shop craftsmen during the sixth year of Daoguang (1826) and the twenty-seventh year (1847) where they "stopped work and extorted money," and the foil workshop craftsmen in the seventeenth year (1837) who "collectively stopped work,"[30] the recorded wage dispute

[27] Refer to Emperor Yongzheng's Edict Approved via Vermilion Stamp [Yongzheng Zhupi Yuzhi], 13 Letters in Each of the 4 Respective Volumes, Li Wei's Reports (Book 8, pp.4457-4458). 13 Letters in Each of the 5 Respective Volumes, Li Wei's Reports (Book 8, pp.4515).

[28] Dixin Xu & Chengming Wu, *Buddings of Chinese Capitalism [Zhongguo Zibenzhuyi Mengy a]*, *in* THE DEVELOPMENTAL HISTORY OF CHINESE CAPITALISM [ZHONGGUO ZIBENZHUYI FAZHAN SHI]] (ABBREVIATED AS "BUDDINGS OF CHINESE CAPITALISM" IN THE FOLLOWING SECTIONS) 719 (1985 ed.).

[29] *Id.*

[30] Suzhou History Museum, *supra* note 20 at 154, 268, 273, and 165.

incidents in early Qing Dynasty Suzhou amount to at least twenty-four.[31]

Among these twenty-four wage dispute incidents, the calendering sector of the cotton processing industry accounted for ten. Taking a calendering cloth workers' strike on the eve of the 18th century as an example, Suzhou calendering cloth workers initiated a major strike in April of the thirty-ninth year of the Kangxi era (1700). This was a labor movement event described as having a "tendency for chaos" worse than "previous years," where cotton merchants alleged the outcome was: "Traders and the populace suffered, nearly to the extent of one year." The leaders of this strike movement, which lasted from 1700 to 1701 for nearly a year, were cursed by cotton merchants as "vagabonds"; according to the cotton merchants' description of the strike at that time: "Once the vagabonds issued an order, hundreds and thousands of calendering workers followed. They formed groups and beatings occurred daily. As a result, the workshop heads were frightened and avoided them, and all workshops were bound, daring not to start work or calender." At the same time, calendering workers had developed a system similar to a strike fund: "They would say that on a certain day all workers should strike, with each craftsman contributing money, five or ten *wen* 文 varying in silver." "If a craftsman was unemployed... each craftsman should contribute two or three *fen* 分 in silver, and not a single one was exempted," merchants accused these workers of having prepared quite a strike fund: "Little by little, it had accumulated to tens of thousands."[32]

There were more migrant workers than guest merchants; and since the late Ming and early Qing periods, some Jiangnan towns, including Suzhou, had already seen collective protest actions by handicraft workers such as "burning sacrificial offerings like paper horses, wore coats covered in petitions for innocence written on yellow paper burning talismans and divine horses, and filing complaints at the City God Temple," also known as "worshipping gods and singing operas," activities that could be described as a form of "worker culture" developed on a certain religious consciousness.[33] However, collective actions of workers establishing associations were still subject to stricter government control. For example, during a calendering workers' strike in Suzhou in the fifty-fourth year of Kangxi (1715), some calendering workers also attempted to form a "guild," but for those brand merchants who were afraid of the workers forming organizations, it was necessary to emphasize in the complaints against the workers that the collective action of establishing a guild under the pretense of "wanting to support salvation halls (*pujiyuan* 普济院) and nursing halls (*yuyingtang* 育婴堂)" was actually a scheme by unscrupulous calendering workers to "extort money."[34] The government believed the merchants' narrative, and to date, there is no evidence to suggest that Suzhou cotton workers have ever successfully formed any

[31] Most of the wage disputes between merchants and hired artisans were often called "disputes bet ween merchants and workers" locally (*Suzhou Epigraphy*, pp.75). For background analyses on suc h clashes in early Qing, see Pengsheng Chiu, *Probing on the Governmental-Commercial Relation ship in Early Qing via Cases in Business Clashes in Suzhou [You Suzhou Jingshangchongtu S hijian Kanqing Qingdaiqianqi de Guanshang Guanxi]*, 43 J. LIT. HIST. PHILOS. WENSHIZHEXUEB AO TAIPEI 41 (1995).

[32] Suzhou History Museum, *supra* note 20 at 63.

[33] Jen-shu Wu, *"The Collective Protests of Handicraftsmen in Late Ming and Early Qing—Usi ng Suzhou as the Focal Point for Discussion" ["Mingmoqingchu Shougongye Gongren de Jitik angyi Huodong—Yi Suzhou Cheng wei Tantaozhongxin"]*, 25 J. PRE-MOD. HIST. STUD. CENT. I NST. ACAD. RES. 70 (1998).

[34] Suzhou History Museum, *supra* note 20 at 66.

exclusive buildings with "registration" permission like merchant guilds or chambers. Comparatively, collective efforts by merchants to establish group organizations through donations were more easily supported by the local government.

From the late 16th century of the late Ming Dynasty onward, Suzhou began to see exclusive buildings funded by merchant donations named various "guilds"(*huiguan* 会馆) or "chambers (*gongsuo* 公所)," where guest merchants would gather for meetings, worship banquets, or store goods and take a rest. During the early Qing Dynasty of the 17th and 18th centuries, more and more such buildings were established. Although these guilds and chambers were exclusive buildings established by donations from private merchants, at the time of establishment, the donating members would usually seek to "register" with the local government to better protect their public property or property deed security. At the same time, with the continuous donations from merchants and the regular organization of various fellowship, worship, and charitable activities by the donating members within the buildings, guilds and chambers gradually evolved into a new type of merchant group.[35] It is estimated that by the end of the Qing Dynasty, there were at least 50 "guilds" and 210 "chambers" in Suzhou[36], and the vast majority of these exclusive buildings were closely related to the creation and ongoing support of donations from merchants or artisan bosses.[37]

III. HOW DID MERCHANT GROUPS INTERVENE IN THE JUDICIAL SYSTEM WITHIN SUZHOU CITY?

In general, guilds and chambers in Suzhou city did not directly involve themselves in local judicial cases; nor did Suzhou's local officials often require any directors of guilds and chambers to mediate disputes between merchants. Although the Suzhou local government did indeed "register" many guilds and chambers funded by merchants, protecting their public property, the donating merchants were not required by Suzhou local officials to mediate civil disputes, nor were they seen as associations that could assist litigating merchants. Fundamentally, the numerous merchant guilds and chambers in Suzhou were considered "public property" for merchants to organize

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[35] PENGSHENG CHIU, NOVEL MERCHANT GROUPS IN INDUSTRIES AND COMMERCE IN 18TH-19TH CENTURY SUZHOU [SHIBASHIJIU SHIJI SUZHOUCHENG XINXING DE GONGSHANGYE TUANTI (1990 ed.).

[36] Statistical investigations on Suzhou's business guildhalls and chambers can be found in Zuoxie Lyu, *Commercial Guildhalls and Administrative Offices during the Ming and Qing [Mingqing Shiqi Suzhou de Huiguan he Gongsuo]*, 2 RES. CHINA'S SOCIO-EONOMIC HIST. ZHONGGUO SHEHUI JINGJISHI YANJIU 10 (1984). Huanchun Hong, *The Roles Played by Suzhou's Guildhalls and Administrative Offices in Ming and Qing's Commodity Economy" [Mingqing Suzhou Diqu de Huiguan Gongsuo zai Shangpinjingji Fazhan zhong de Zuoyong]*, *in* OCCASIONAL RECORDS OF THE HISTORY OF THE MING AND QING [MINGQINGSHI OUCUN] 566 (1992 ed.).

[37] In Qing Dynasty China, the establishment of guilds and chambers by merchant donations was not limited to Suzhou; such institutions were created by merchants in several industrially and commercially developed towns and cities, including Beijing, Hankou, Shanghai, Foshan, Chongqing, Guangzhou, and the town of Wucheng in Jiangxi. However, the density of guilds and chambers established by merchants in Suzhou was likely among the highest, and the total number of merchants joining these guilds and chambers was quite significant. For instance, in the forty-second year of Qianlong (1777), there were at least fifty-three brands contributing to the donation of the "Quan Jin Guild" (the Guild of Shanxi Province merchants); in the first year of Daoguang (1821), twenty-four woodworking shop owners were listed as managers of the "Xiao Mu Chamber"; and in the twenty-fourth year of Daoguang (1844), the donor list for the "Xiao Mu Chamber" contained sixty-seven names (from "Suzhou Epigraphy," pages 335-337, 135-137).

fellowship, worship, and charity activities.[38] Up until the late Qing Dynasty, although guilds and chambers had quite close relationships with many merchants, they were still not organizations that could publicly represent the collective interests of merchants, which is vastly different from the system established at the end of the Qing Dynasty with the promulgation of the "Concise Regulations of the Chamber of Commerce" (*Jianming Yuhui Zhangcheng* 简明商会章程) that explicitly ordered the establishment of "chambers of commerce" to represent merchant interests in economically prosperous towns and cities nationwide.

However, after the establishment of guilds and chambers with merchant member donations, they still indirectly influenced the local judicial system. In Ming and Qing Suzhou, there was a common litigation habit among merchants, who often had government rulings in their favor carved on stone steles after winning a lawsuit. This informal system, of course, was established with the tacit approval of the local government; and this system of displaying winning rulings on stone steles also lent greater public visibility to the records of various cases adjudicated by Suzhou's local government, including commercial disputes, making many business-related rulings no longer just a piece of official documentation stored in the government's local archive rooms. Examining the locations of the stone steles for Qing Dynasty Suzhou's commercial dispute cases further reveals the difference before and after the establishment of guilds and chambers: there are nine examples where rulings were inscribed on steles at guilds and chambers, with the judgment texts carved at the entrances of merchant and craftsman boss exclusive buildings such as "Daxing Chamber 大兴公所," "Gaobao Guild 高宝会馆," "Xianweng Guild 仙翁会馆," "Yunjing Chamber 云锦公所 ," "Lize Public Office 丽泽公局," and "Liyuan Chamber 醴源公所," rather than along the roadsides of commercially developed areas as was the case for merchants who had not yet established guilds and chambers.[39] From this perspective, guilds and chambers actually provided a better public display function for commercial dispute-related "rulings," allowing the donating merchants of guilds and chambers to more easily preserve and reference various existing favorable judgment texts related to their own interests, significantly reducing threats such as clerical obstruction of checking and referencing related commercial rulings, and indirectly safeguarding the rights and interests of merchants in conducting business.

These well-preserved and publicly displayed commercial rulings of Suzhou's guilds and chambers can be mainly divided into two categories: the first is various mediation or ruling documents used to resolve commercial disputes between guest merchants and local brokers (or middlemen, *yahang* 牙行); the second includes mediation or ruling documents related to the commercial practices of wholesalers, including cotton cloth manufacturing, which maintain trademarks and coordinate worker salaries.

The first category of documents related to commercial disputes mainly includes

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[38] The evolution of guilds and chambers in Suzhou into registered "public property" is discussed i n Pengsheng Chiu, *From Public Productions to Legal Persons—The Institutional Evolution of Merchant Groups in Suzhou and Shanghai During the Qing Dynasty [You Gongchan dao Fare n—Qingdai Suzhou and Shanghai Shangrentuanti de Zhidubianqian]*, 10 CHINA'S LEG. HIST. SO C. TAIPEI HIST. LANG. DEP. "CENTRAL INST. ACAD. RES. 41 (2006).

[39] Chiu, *supra* note 32.

disputes between guest merchants and tooth rows over standards of measurements and brokerage fees. In Suzhou, many merchant "guilds" were originally seen as the place for "local and guest public discussion of regulations."[40] As early as the 18th century, many guilds and chambers were important venues used by donating guest merchants to counteract local brokers, with "Jianglu Chamber 江鲁公所" being a representative example. To solve the recurring disputes over the standards of measurements, the merchants of "Jianglu Chamber" purchased officially approved weights and scales in advance, stored these official measurements in the chamber, and used them to resist the brokers' coercion to use local Suzhou measurements unfavorable to guest merchants: "Every new and full moon, brokers and guests merchants come together to compare and ensure that brokers cannot cheat, and merchants are not harmed."[41] This was originally a document requested by merchants and approved by local officials, which was then carved into a stele and erected at the "Jianglu Chamber," thus safeguarding the members' commercial rights. Similar documents where guest merchants resisted brokers' coercion to use local measurements also appeared in an inscription erected at the "Jujube Merchant Guild 枣商会馆" in the eighteenth year of Jiaqing (1813), where jujube merchants received instructions from the county magistrates of Yuanhe, Changzhou, and Wu that: "All jujube brokers in Suzhou city shall uniformly use the scales branded by the (Jujube Merchant) Guild, fair in both income and outgo... and not allowed to mix with private scales, to unify and prevent future legal disputes," according to the members of the "Jujube Merchant Guild," these "Guild-branded scales" were "following the measurements established and branded in the thirtieth year of Kangxi."[42]

The official measurements published in the "Great Qing Legal Code" (大清律 *Daqing Lyuli*) were not always able to override the local measurements commonly used in the Suzhou market. However, after a long-term conflict between merchants and local brokers, and a joint lawsuit filed by the merchants against the brokers, the members of "Jianglu Public Hall" and "Jujube Merchants Guild" successfully invoked the strategy of appealing to the official measurements. This strategy eventually gained the support of the government, thereby transforming the business customs of using local measurements in two industries in Suzhou. When these two merchant groups displayed the related court verdicts publicly by erecting them in front of their buildings, they further solidified this new business custom. From this perspective, Chinese merchants' collective efforts significantly narrowed the gap originally existing between national law and commercial customs, without the need for a "customary law" compilation work in Qing Dynasty Suzhou akin to that in modern Europe—where legal experts conducted collections and investigations among the populace. One key factor was the existing legal provision of official measurements in the "Great Qing Legal Code," which had been unenforceable in the past but now could be implemented with the collective effort of merchant groups.

Another common commercial dispute between merchants and brokers was the controversy over the rate of commission fees and the standards for the currency used for payment. For instance, the "Eastern Yue Guild 东越会馆," established by candle merchants from Shaoxing Prefecture, also erected an inscription approved by the

[40] Lu Gu, *Guandi's Birthday*.
[41] Suzhou History Museum, *supra* note 20 at 289.
[42] *Id.* at 251–252.

government: "To set the price for the industry, private additions and deductions are not allowed. In case of any unfairness, the directors are invited to the guild to organize and establish regulations to constrain."[43] This reflects the collective effort of these merchants and brokers to agree on a fair "current price" for the commission fees. Another example is from the seventh year of Qianlong (1742), when the magistrate of Changzhou set the commission rates and currency payment standards for transactions with brokers for the "Gaobao Guild": "Henceforth, for the trading of pickled chicken, fish meat, shrimp, rice, and other items, the silver price will be at 97 percent of full silver (*jiayin jiuqi zuse* 价银九七足色) and canal shipping standard[44] of 97 percent purity (*caoping jiuqi zudui* 漕平九七足兑); for external purchases by buyers, one fen per tael, including the shop's fees; for internal use by the shop, one fen per tael, including the warehouse's fees. Any additional surcharges are to be abolished."[45] The end of the inscription lists 240 names of "mass merchants," including some business names. Although the inscription does not mention "Gaobao Guild," this stone tablet, including the court's verdict, was erected in front of the Gaobao Guild's gate.

Once again, the content of the national laws such as the "Great Qing Legal Code" did not specify details for commercial transactions, such as using a payment standard of silver like "97 percent of full silver and canal shipping standard of 97 percent purity," nor did it list a commercial brokerage fee ratio like "one *fen* per two taels". However, through the collective efforts of merchant groups, these originally controversial customary commercial practices were endorsed by official government forces, becoming public documents displayed in front of the merchants' guild halls. Similarly, without the need for legal experts to investigate and organize, different commercial customs in Suzhou were transformed into state-enacted laws supported by government coercion, becoming precedents that could be cited in similar cases later on, thus acquiring a certain degree of "legal effect". This also resulted in what Jonathan Ocko pointed out: local officials played a role in transforming "customary practices" into "customary rules". However, what this article wants to add is that the emergence of these "customary rules" was definitely not a unilateral decision by local officials but was also promoted by the collective efforts of merchant groups such as guilds and merchant associations.

The second type of mediation or judgment documents commonly displayed in front of merchants' guilds, chambers and associations relates to wholesale merchants maintaining trademarks and merchants' requests to the government to coordinate workers' wages and other commercial customs.

A judgment made by an official from the Songjiang Prefecture in the first year of the Qianlong era (1736) clearly outlines how the trademarks of cotton cloth in Suzhou and Songjiang, among other regions, were transformed from commercial

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[43] *Id.* at 267.

[44] In China's diverse trade landscape, the tael—a traditional unit of weight—varied in standard acr oss regions and types of commerce. Typically, a silver tael hovered around 40 grams (1.3 ozt). T he predominant government standard, known as the Kuping tael (库平两 "treasury standard silver tael"), was defined at 37.5 grams. Concurrently, the Caoping tael (漕平两 "canal shipping standar d silver tael"), a prevalent measure in commerce, represented 36.7 grams of silver of a slightly lo wer purity.

[45] Suzhou History Museum, *supra* note 20 at 248.

custom into "customary law": "The cloth business in Suzhou, Songjiang, and other prefectures is very extensive, but the goods vary in quality, length, and thickness, only distinguished by each established trademark. Therefore, the previously popular trademarks can be rented and sold... However, there are those who seek profit and do not establish their own trademarks... either by using a similar sound or a different character with the same sound, they counterfeit and monopolize, causing confusion between fake and genuine goods, leading to disputes and burdens on merchants and civilians." To protect the rights of the trademark cloth merchants who were being counterfeited, the government official made another "resolved case", which reads: "The cloth trademarks of Suzhou and Songjiang Prefectures shall not be counterfeited or confused, and this is established as a resolved case", "Now in Suzhou Prefecture, there are cloth merchants who stealthily counterfeit trademarks", "Ordering Suzhou and Songjiang Prefectures to inspect and ban, and to engrave on stone to adhere to perpetually".[46] The commercial custom of "renting, topping, and selling" cotton cloth trademarks "cloth records, shop signs" was integrated into a government "resolved case" to protect the related rights of "Suzhou and Songjiang Prefecture trademarks." Without the need for a "civil and commercial custom survey" similar to those conducted during the late Qing and the Republic of China era, merchants through existing judicial procedures of joint litigation, established the illegality of counterfeiting trademark practices including "using the same sound or different character with the same sound", turning it into a "resolved case" that the local government of Suzhou and Songjiang Prefecture had to invoke.

In the fourteenth year of the Daoguang era (1834), an inscription erected at the "Xinan Guild Hall" also recorded and displayed the content of a judgment made by a local official to maintain the business freedom of cloth merchants: "All crafts and businesses are first and foremost forbidden from monopolizing"; "If the calendering workshops are not operating fairly, how can they not be changed! Allowing them (calendering workshops) to monopolize and dominate (the cloth industry) is hardly fair", the official invoked the legislative intent of the "market monopoly" clause from the Marketplace section of the "Great Qing Legal Code", and made the following judgment: "To inform cloth merchants, workshop owners, and others: from this notice forward, comply with the now established regulations, allow cloth brands and shops to choose calendering workshops themselves."[47]

Let's consider the content of the judgments related to wage agreements. As early as the ninth year of Kangxi (1670), the Suzhou Prefect had already republished the wage payment standards agreed upon by both employers and calendering cloth workers: "Following the old practice, each piece pays one *fen* and one *li* in patterned silver." The local official demanded that both parties adhere to the agreement and exercise self-restraint in wage disputes and conflicts: "Shop owners are not to shortchange, and workers are not to overcharge." Before the thirty-second year of Kangxi (1693), the local government had already engraved the wage regulations for calendering cloth workers at a public place in Suzhou known as "Huanghua Pavilion"[48], requiring merchants and workers to comply with this wage agreement. Between the fortieth (1701) and fifty-fourth (1715) years of Kangxi, the government, while agreeing to increase the

[46] Excerpts from Stone Monuments in Shanghai [Shanghai Beike Ziliaoxuanji].
[47] Suzhou History Museum, *supra* note 20 at 81.
[48] *Id.* at 54-55.

wages of calendering cloth workers from "one *fen* one *li* per piece" to "one *fen* one *li* and three *mao* per piece", further stipulated the legal standard for converting currency wages during periods of grain price inflation: "When the price of grain is expensive, reaching one tael and five *qian*, for every thousand pieces of calendering cloth, add two *qian* and four *fen*. If the grain price is one tael and two *qian*, then stop. The shops, when issuing wages, should add an extra five *li* per tael, called a contribution"[49]. Basically, well before entering the 18th century, the local governments of Suzhou and Songjiang's involvement in handling the wage agreements between merchant brands and cotton cloth workers had become a routine administrative affair in the local judiciary.

Including local officials from Suzhou and Songjiang, they had to at least maintain the appearance of impartiality in handling wage disputes between merchants and workers, without favoring either side. For example, in April of the second year of Qianlong (1737), calendering cloth workers led by Yin Yigong protested to the Suzhou local officials that cloth merchants had failed to increase wages timely according to market changes like the "expensive price of rice". These Suzhou calendering cloth workers requested to invoke "the example of Songjiang Prefecture", hoping the Suzhou local officials would use the established case of Songjiang Prefecture to force cloth merchants in Suzhou to increase wages. Possibly dissatisfied with the handling by the prefectural and county government offices of Suzhou, in October of the same year, Suzhou calendering cloth workers like Wang Yanheng further took the direct approach of "directly appealing to the Governor-General"[50], requesting higher-level officials to intervene directly in the wage disputes between calendering cloth workers and merchants. The joint lawsuits of cotton cloth workers against merchants are specifically reflected in this series of cases from the second year of Qianlong. Whether or not the local government secretly favored merchants, at least in terms of wage agreements and wage payment standards, the Suzhou local government gradually learned some details to protect workers' livelihoods, such as the "the Conference of Three Counties including Yuan Chang Wu in terms of Calendering Cloth Workers' Wage Payment Silver Tablet" of the sixtieth year of Qianlong (1795), which stipulated: "Henceforth, the workshop owners shall pay the craftsmen's wages in accordance with the issued *chenping* silver at the rate of 98 percent, exchange 96% color silver (*chenping jiuba, dui jiuliu seyin* 陈平九八、兑九六色银)" given to calendering cloth workers, allowing them "to exchange money on their own, without the need for workshop owners to manage it."[51] The reason for such a regulation is that the wages paid by cloth merchants to calendering workshops were mostly in silver currency, and workshop owners might underpay the actual wages received by calendering cloth workers by taking advantage of the convenience of exchanging for copper coins and the exchange rate between silver and copper cash. The local government's intervention here still considers protecting the interests of calendering cloth workers.

Wage agreements were not confined to the cotton industry. In the twenty-first year of the Qianlong era (1756), the magistrates of three counties including Yuan,

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[49] *Id.* at 68-69. Scholars have arranged a comparison of the copper coin wages received by Suzho u calendering cloth workers and the concurrent rice prices and the exchange rates between silver and copper cash. See Paolo Santangelo, *Urban Society in Late Imperial Suzhou*, *in* CITIES OF JIAN GNAN IN LATE IMPERIAL CHINA 81 (Linda Cooke Johnson ed.). Wu, *supra* note 34.
[50] Suzhou History Museum, *supra* note 20 at 74.
[51] *Id.* at 79.

Changzhou, and Wu set wage standards for paper mill owners and paper craftsmen. The agreement stipulated that "wages across the three counties would be uniformly set at 'ninety-nine level and ninety-five purity' (*jiujiuping, jiuwuse* 九九平，九五色), calculated (wage) on a daily or per-job basis, with the monetary payment adjusted according to the current market prices. If anyone dared to undercut the agreed wage, they were to be punished according to the unjust enrichment law 'with eighty strokes of the cane. Similarly, if craftsmen banded together to inflate wages, they would be penalized under the laws against 'market manipulation and inflating prices' with eighty strokes. Furthermore, if there was a collective work stoppage, the punishment was to extend beyond the law, with two months in cangue."[52] This decree cited at least two articles from the "Great Qing Legal Code" concerning "no permission" and "prohibition of market manipulation", outlining the associated legal penalties.

Clearly, within 18th-century Suzhou city, although the Chinese government had not issued any economic regulations to address wage disputes, the official administrative process of intervening in the setting of wage standards was already established. Disputes between merchants and workers over wages had become a matter regulated by the invocation of national laws by officials. Likewise, there was no need for legal scholars to conduct "customary business practice surveys". The process of adjusting wages according to grain prices and the standards for paying wages in silver and copper currency had already become part of the legal or administrative orders recognized and adjusted by the authorities. This also exemplifies the process described by Jonathan Ocko, where provincial officials transformed "customary practices" into "customary rules".

In the 13th year of Emperor Qianlong's reign (1748), the philanthropic merchants of the Dongqi Guild Hall expressed: "The management of marketplaces is not without its discrepancies. And the deceptive tactics of the unscrupulous, exploiting loopholes at every turn, are not in keeping with the principle of fairness in the hustle and bustle of the crowded marketplace, nor with the spirit of mutual respect and brotherhood that should prevail. The establishment of guild halls is thus of great significance."[53] As early as the 18th century, these wholesalers from Shandong province had already recognized the importance of establishing guild halls through their collective donations to facilitate business operations. They understood that "business customs" are ever-changing, and in the dynamic environment of business operations, to harmonize the varying customs and to prevent deceitful practices in the market, collective action by merchants was essential. They needed to establish their guild halls, practice their crafts with integrity and goodwill, and seek the support of government authority when necessary. Through the collective efforts of these merchant associations in guild halls and trade associations, "customary practices" were transformed into "customary rules" in the bustling towns of Suzhou and Songjiang, quietly emerging and evolving in various industries. The foundational institutional support for this transformation from "customary practices" to "customary rules" was primarily the judicial decisions issued by local governments, supplemented by the public display of these decisions in guild halls and associations.

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[52] *Id.* at 90.

[53] Excerpts from Stone Monuments in Shanghai [Shanghai Beike Ziliaoxuanji], *supra* note 47 a t 369.

As for whether these "customary rules" can be equated with "customary law," this remains a matter of scholarly debate over definitions. Nonetheless, it is worth revisiting the terminology used by Qing Dynasty legal experts and officials themselves, especially the legal reasoning and rhetoric they employed in commercial lawsuits in places like Suzhou and Songjiang.

IV. Potential Support Powers from Legal Experts

In addition to the influence of merchant associations, the better development of "customary rules" in economically advanced areas like Suzhou during the Ming and Qing dynasties could also be attributed to the potential support from legal experts.

Indeed, many commercial disputes in Qing China did not seek support from the legal system. Some scholars have emphasized, through analyzing judicial cases of pawnshops defaulting on merchants' payments, that since defaulting pawnshops often received direct or indirect protection from local government officials and clerks, merchants mostly resorted to suing only when their attempts to recover long-outstanding payments were unsuccessful.[54] Other scholars have pointed out that, despite the high level of commercialization in some parts of China in the early 19th century, local officials often failed to consider the complexities of business operations in their handling of commercial disputes.[55] These observations are representative and valid to a certain extent, but they may overlook the broader changes in the Qing legal system.

Generally speaking, due to the tightening and encryption of the review (*shenzhuan* 审转) and limitation (*shenxian* 审限) system during the Ming and Qing dynasties, this significant institutional change led to two different outcomes: intended and unintended. Speaking of the intended outcomes, the increasing pressure from central judicial authorities on local judicial officers across the country, with the Ministry of Punishments at the forefront, turned the ministry into a hub for the nation's most specialized legal officers. Comparatively speaking, this outcome mostly aligns with the original intention of the emperor and central judicial authorities to tighten and refine the review and limitation mechanisms, hence it is an outcome "within the scope of intention."

However, the tightening and encryption of the review and limitation system led to at least three unintended consequences. Firstly, fearing that their judgments would be overturned by the central government's judicial departments, and wishing to speed up the documentation process for smooth approval through the review system, local officials felt the need to spend more of their personal funds to hire various clerical helpers, including "legal experts"(刑名师爷 *xingming shiye*). Secondly, the increased pressure of review and limitation led higher-level local officials to pass this pressure down to district and county officials. This allowed many savvy litigators to exploit the vulnerabilities, using the higher officials' fear of central government rejection to pressure local officials to be more diligent in their case handling. This subtle pressure between levels of government gave litigators more judicial maneuvering space than

[54] JINMIN FAN, BUSINESS CONFLICTS AND LITIGATIONS IN THE MING AND QING [MINGDAI SHANG SHIJIUFEN YU SHANGYESUSONG] (2007 ed.).
[55] David Faure, *The Local Official in Commercial Litigation in Early Nineteenth-Century China*, UNIV. TOKYO J. LAW POLIT. 144 (2004).

before, even facilitating the expansion of their litigation services. The simultaneous increase in the number of both clerical helpers and litigators was an unforeseen outcome of the central government's push for a tighter review and limitation system. Thirdly, to assist local authorities in ensuring their documents passed the review and transfer without being rejected, a type of clerical training known as "Studies of Being Private Secretaries" (*muxue* 幕学) began to place more emphasis on how to deal with the central government's review system. This led to the ideal that clerical helpers should produce flawless documents, metaphorically described as "seamless garments of heaven." Meanwhile, litigation manuals, which served as guides for litigators and others interested in pursuing litigation services, began to develop the concept of striving for a "win every battle" approach.[56] These outcomes, both within and beyond the scope of initial intent, became increasingly significant with the judicial reforms of the 18th century, serving as key dynamics in the transformation of China's legal system during the 18th and 19th centuries.

Despite the ignorance of commercial disputes by many Qing judicial officials and the lack of detailed differentiation in many judicial documents, against the backdrop of these judicial system changes, Qing merchants facing various commercial disputes were still operating under a somewhat different legal framework. Particularly in economically developed urban areas, when merchants filed lawsuits, they could hire locally renowned litigators with strong track records to strategize and draft for them, and at the same time, possibly garner more attention from local officials and their well-paid clerical helpers. They might even receive official recognition of customary practices that could regulate commercial operations, thus accumulating relevant "established cases" for use in local commercial litigation.

For example, a merchant from Huizhou operating a cotton cloth brand could not only hire a skilled litigator at a high price to covertly draft the lawsuit and provide various strategies for a likely win in the commercial litigation but also use legal rhetoric like "nurturing commerce as a virtuous policy" or "personal and family fortunes tied to the nation's revenue" to appeal to officials for a legal reasoning more favorable to their business operations.[57] This could lead to a judgment that pleases the litigant merchant. Taking as another example the cases of pawnshop merchants and their clients from Jiangsu, Zhejiang, Jiangxi, Hunan, and Anhui, who suffered losses due to fires or robberies, the judicial decisions not only employed legal rhetoric that elevated the protection of the wealth of the rich, stating "the rich are the mothers of the poor, the vital energy of the state", but also led to the development of provincial legislations like "Regulations for Governing Zhejiang", "Essential Policies for West River", "Established Cases for Hunan Province", which gradually influenced the revision of the "expenses and entrusted property" sections in the "Great Qing Legal Code".[58] This is clear evidence of commercial customs and specific commercial cases impacting

[56] For more elaborative analyses, see Pengsheng Chiu, *In the Name of Law: The Impacts that L awyers and Advisers Had on Ming and Qing's Legal Orders [Yifaweiming: Songshi yu Muyou dui Mingqing Falyuzhixu de Chongji]*, 4 Book 15 *in* NEW HISTORIOGRAPHY (TAIPEI) 93 (2004).
[57] Pengsheng Chiu, *Also a "Business Law" Issue: Trial Discussion on Legal Criticisms and De ductions in 17th Century China [Yeshi "Shangfa" Wenti: Shilun Shiqishiji Zhongguo de Falyu Pipan yu Falyu Tuili]*, 8 75 (2005 ed.).
[58] Pengsheng Chiu, *Discussions on the Debts and Drawbacks of Business Laws in 18th Centur y China [Shiba Shiji Zhongguo Shangyefalyu zhong de Zhaifu yu Guoshi Lunshu]*, FUDAN UNI V. PRESS 211 (2005).

provincial laws and the national law of the "Great Qing Legal Code". In the process of law reform and legislation, there was no lack of legal debates on negligence liability; and the significant force behind these cases evolving into national law was the role of legal professionals who could "argue law based on law".

Although legal professionals might at times exploit merchants financially, leveraging their legal acumen for extortion, a systematic comparison reveals that without a substantial presence of legally proficient advocates — those who can argue from a legal standpoint — commercial litigation would be subject to a greater influence of authoritarianism and aggression. This environment would impede the establishment of commercial customs into consistent rules. In short, an increase in the number of officials, private secretaries, and litigators proficient in law is a necessary but not sufficient condition for the regularization of commercial customs.

As legal expertise and expertise developed, the Qing judicial system gained a solid foundation for legal discussions. Jérôme Bourgon rightly noted that the decline in legal operations due to social unrest in late 19th-century China should not be projected back onto the judicial landscape of the 18th and early 19th centuries.[59] We shouldn't underestimate the ability of Ming and Qing officials and their private secretaries to skillfully employ legal reasoning due to their thorough knowledge of the law. Moreover, it's important to recognize that these legal experts, both official and semi-official, did not readily yield the basis of judgments to local customs or habits. Rather, they possessed a significant capacity to tailor and integrate various cases within the regulatory framework of Ming and Qing statutes.[60]

However, Jérôme Bourgon also pointed out that because of this exceptional ability to adapt cases to existing legal provisions, Chinese legal experts were always contemplating how to trim or reshape a variety of folk customs and social realities to better integrate them into the Qing Code. This led to a sacrifice of the complexity and precision of jurisprudence in favor of the uniformity and comprehensiveness of the law. As a result, the traditional Chinese legal system could not develop legal categories akin to civil or private law found in European jurisprudence. For those familiar with the law, local customs represented by "folkways" were always subjects in need of governmental reform and not typically the key reasons for revising existing legal texts. Therefore, concepts like "customary law," "civil law," or "private law" never emerged in China as they did in European legal history.[61] This article contends that the above assertion made by Jérôme Bourgon warrants further discussion.

While Jérôme Bourgon's explanation that Qing China lacked "customary law" has its merits, it's crucial to appreciate the impressive ability of Ming and Qing legal experts to blend judicial case differences with the uniform provisions of the statutes. It's also important to recognize the particular context in which "customary law" emerged in European history. Nonetheless, it's suggested not to overlook the varied

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[59] Thomas M. Buoye, *Research on Qing China's Judicial Archives, Laws, Economy, and Societ y [Sifadangan Yiji Qingdaizhongguo de Falyu, Jingji, He Shehui Yanjiu]*, 4 *in* LEGAL HISTORY STUDIES [FAZHISHI YANJIU] 211 (Pengsheng Chiu tran., 2003).
[60] Bourgon, *supra* note 9.
[61] Jérôme Bourgon, *Rights, Freedoms, and Customs in the Making of Chinese Civil Law, 1900-1936*, *in* REALMS OF FREEDOM IN ANCIENT CHINA 87 (2004 ed.).

legal effects under the Qing's strict audit and review mechanisms—both intended and unintended—especially under the combined and complementary roles of litigators, aides, and officials. The various legal rhetoric that integrated merchant interests with the public good was indeed sufficient to prompt judicial offices in economically developed areas like Suzhou and Songjiang to adopt commercial customs such as cotton cloth contracting, trademark infringement judgments, and the sale and transfer of cloth marks. These primarily litigation-driven legal changes often accumulated into local judicial "precedents" or "established cases" (*chengan* 成案) that could influence subsequent similar commercial cases in the area.

Mid-19th century, Mu Han 穆翰, in his "General Discussion on Case Review" from *Criminal Management Records* (*mingxing guanjian lu* 明刑管见录), detailed the types of written and oral evidence pertinent to case hearings, such as contracts, personal agreements, and marriage certificates for household, marriage, land, and debt cases. He meticulously outlined and emphasized the importance of examining these documents closely, including old accounts, daily transactional notes, and debt securities, to understand why the parties had not yet conceded. He advised judges to take note of the crucial aspects of the cases, and to conduct inquiries harmoniously and pleasantly without intimidation or aggressive questioning. Mu Han also underscored the proper management of evidence post-trial, marking documents to be returned with vermilion and ensuring their return in court to prevent extortion by clerks. Documents required for further investigation were to be clearly noted and securely attached to the court's files to prevent loss, such as money orders and silver tickets, which were to be shown to the parties at the shop as part of the case and then sealed and attached to the court files. [62] This text showcases a careful transmission of judicial experience, demonstrating no sign of negligence towards household, marriage, land, or debt cases by the judicial officer. He treated the usual commercial dispute evidence—contracts, accounts, cancellations, loans—with utmost attention before and after hearings. Instead of desiring to "correct" commercial practices, Mu Han acknowledged the "customs" embedded within the various commercial documents of the common folk.

The presence of legal experts like Mu Han likely played a crucial role in ensuring the quality of judicial rulings, including those in commercial litigation during his time. While we cannot ascertain the exact number of such experts among judges of that era, surviving historical records suggest that many officials in the Ming and Qing dynasties valued and emphasized legal scholarship,[63] with Mu Han being a notable, yet not singular, example. This reverence for legal knowledge extended beyond judicial officials to include private secretaries and litigators, who were also integral to the legal profession during that period.[64]

In summary, Qing officials did not need to engage in theoretical discussions on the relationship between local customs and national law or boast about formulating

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[62] Han Mu, *Annals of Regulations on Criminal Punishments in the Ming Dynasty [Mingxinggua n Jianlu], Overview of Case Hearings*, *in* ESSENTIALS OF FOLK INTERACTIONS [LINMIN YAOLUE] (PHOTOCOPIED IN 1881) 1 (1994 ed. 1827).

[63] Pengsheng Chiu, *Having Resources that are Socially Usable or Granting Fortunes to Descen dants: Two Values Indicated by the Legal Knowledge Associated with the Late Ming Dynasty [Youziyongshi huo Fuzuozisun: Wanming Youguan Falyuzhishi de Liangzhong Jiazhiguan]*, 1 Bo ok 33 TSINGHUA J. ACAD. RES. XINZHU TAIWAN 1 (2003).

[64] Chiu, *supra* note 57.

“customary law." Instead, under the combined influence and assistance of assistants and litigators, the legal reasoning employed in some commercial cases was cloaked in unique legal rhetoric, subtly infiltrating the “Great Qing Legal Code,” various provincial statutes, and local case precedents. These legal shifts in the commercial litigation arena were not only closely linked to the long-distance trade and the development of national markets from the 16th to 19th centuries but were also tightly intertwined with the growth in the number of legal professionals during the Ming and Qing dynasties, as well as with the tightening and intensification of judicial review and limitation mechanisms in the 18th century.

CONCLUSION

The conclusion of the article suggests that when examining the interaction between custom and national law in Qing China, we should keep in mind Jérôme Bourgon’s advice to consider the special definition of “customary law” in European legal studies and not to apply it indiscriminately to the Chinese legal system. On the other hand, we should also pay attention to the dominant role that social public thought, desires, rationality, and emotions play in shaping national law, as highlighted by Liang Zhiping. Moreover, we should also notice as commerce and trade developed, the transformation from “customary practices” to “customary rules” in certain Qing dynasty local courts, a process noted by Jonathan Ocko. In the commercial and industrial towns of Suzhou and Songjiang in the Jiangnan region during the 18th and 19th centuries, and in many towns along China’s long-distance trade routes, not only is there evidence of the impact of merchant associations like guilds and chambers of commerce that represent the thoughts, desires, rationality, and emotions of the societal public, but also legal experts such as private secretaries, litigators, and officials who jointly assume a systemic role in transforming “customary practices” into “customary rules” through certain legal rhetoric and reasoning.

While the interaction between commercial customs and national law in places like Suzhou and Songjiang cannot be generalized to the entirety of Qing China, and the quality of judicial officials during the Qing dynasty was undoubtedly mixed, ignoring the examples of these economically most advanced regions of China at the time and only discussing the issue of “customary law” in Qing China in general terms would certainly miss some important historical facts. The process of interaction between local customs and national law in Suzhou and Songjiang, and how it compares to the interactions in other commercial and industrial towns along China’s internal long-distance trade routes, remains a topic worthy of further investigation.

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