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*49 How. L.J. 1***LENGTH:** 12113 words**50TH ANNIVERSARY EDITION: ARTICLE:** Mentally Misguided: How State of Mind Inquiries Ignore Psychological Reality and Overlook Cultural Differences**NAME:** Justin D. Levinson***BIO:** * Assistant Professor of Law, William S. Richardson School of Law, University of Hawai'i at Manoa. The author would like to thank Virginia Hensch, Christine Jolls, Kaiping Peng, Junqi Shi, and the University of Hawai'i Law Library librarians and staff for their support and comments. All errors are the author's.**SUMMARY:**

... "The ability to posit mental states in other people is among the most subtly remarkable of human feats. ... Despite a varied and sometimes confused history, the mens rea inquiry looks at a specific actor's subjective mental state at the time of the crime. ... Psychological research, therefore, has taught us two important lessons: that mental state judgments truly matter in criminal culpability judgments, and that understanding how people judge others' mental states is a worthwhile and manageable endeavor. ... To test cultural differences in mens rea judgments, I conducted an analysis of variance on mental state judgments. A "one-way" ANOVA on the culture variable revealed statistically significant cultural differences on mental state judgments. ... By looking at the regression analysis for each mental state judgment, I could see which other questions acted together to allow a statistically significant prediction on the mental state judgment at issue. ... For Chinese, judgments of responsibility of the actor, another psychological measure, constituted the only significant predictor of recklessness judgments. ... By failing to investigate how people make state of mind decisions in the legal setting, discussion of mens rea and other mental state inquiries have focused too narrowly on policy and not enough on the psychological reality of legal standards. ...

HIGHLIGHT:

"The ability to posit mental states in other people is among the most subtly remarkable of human feats." n1

TEXT:

[*1]

INTRODUCTION

The law constantly tries to make sense of people's thoughts. Did former NBA star Jayson Williams purposely cover up the shooting of his chauffeur? Did Texaco executives intentionally discriminate against employees based on race? Did WorldCom CEO Bernie Ebbers knowingly preside over massive fraud? Each of these questions, and legal liability itself, frequently rests upon insight into the mental states of various actors. By requiring a subjective inquiry into the human mind in dozens of legal disciplines, the law unsurprisingly calls for an understanding of the way people think. What is surprising, however, is that policymakers develop law related to the human mind without an understanding of the human mind itself. Outside of the legal context, this understanding continues to evolve as psychologists pursue research on how mental states are perceived and judged. In light of such research, particularly new studies that reveal cultural differences in mental state judgments, legal commentators now must question not only whether existing mental state standards diverge from true decision-making processes, but also whether such standards ignore cultural differences.

[*2] When criminal law asks whether a defendant acted intentionally, with a conscious object, or knowingly, it asks jurors to decide what was in the defendant's mind at a certain point in time, which could have been months or even years prior. At trial, the defendant rarely concedes that he or she intended to commit a harmful act. The only way to know with certainty what the defendant was thinking would require mind-reading access at the moment of the crime. Because such retrospective clairvoyance is not possible, the next best thing is to have fact-finders make a determination. So long as the defendant claims it was unintentional, however, jurors have only circumstantial evidence to rely upon. Sometimes this evidence is strong, other times it is not. Either way, the law leaves the decision regarding a defendant's mental state up to a panel of citizens. When such a complex inquiry becomes the lynchpin of legal liability, the law should demand to understand whether a panel of citizens can actually apply its mental state standards. This understanding must not just include a comparison of legal tests to the psychological reality of the cultural majority, but must also consider whether legal standards can be fairly applied by jurors of all cultural backgrounds. These issues can be condensed into two basic inquiries: (1) Does the law understand the way people think; and (2) Are cultural differences in the way people think appropriately reflected in legal standards?

This Article analyzes these questions and presents the empirical results of a study I conducted to test how people judge actors' states of mind in criminal situations. This study first investigated whether laypersons psychologically understand others' mental states in a manner consistent with American criminal law. Second, it investigated whether the perceivers' cultural background systematically affects the way they judge others' mental states. Results of this study are analyzed [*3] with reference to how such differences fit within the American legal framework.

Section I of this Article describes and critiques criminal law's subjective mens rea inquiry. It highlights a primary theme of mens rea scholarship: that while the law heavily relies upon the truth of the inquiries, the subjective inquiries themselves are almost impossible to prove. Section II turns to psychology to explore how the social sciences deconstruct mental states. Psychologists have begun to reveal important links connecting psychology, intentionality and legal decision-making. Section III casts the challenge of understanding mental states into a cultural lens. After exploring research documenting the importance of culture in decision-making, I ask whether American legal standards are unconsciously framed in a culturally biased way. Section IV describes an empirical study I conducted to test my primary hypotheses. First, I predicted that mens rea standards only occasionally match human psychological processes. Next, I predicted that people from different cultures would explain criminal mental states in systematically different ways. The results generally corroborated these predictions and provided a few unanticipated twists. Section V concludes.

I. MENS REA'S HIERARCHICAL ASSUMPTIONS ABOUT SUBJECTIVE MENTAL STATES

By understanding the psychological basis for the way people make judgments about others' states of mind, we can begin to improve (or challenge, if necessary) the implementation of psychologically embedded laws. Scholars have not yet fully incorporated psychological knowledge into the legal policy process, nor have they empirically examined the psychological mechanisms involved in understanding others' minds in the legal setting.

Even without testing legal mental state standards for psychological consistency, legal commentators are well versed in the challenges [*4] of mens rea's subjective mental state inquiries, and have perceived mens rea as "nearly impossible to read." Even the Supreme Court has noted "the variety, disparity and confusion of [judicial] definitions of the requisite but elusive mental element." Difficulty surrounds mens rea because understanding another person's state of mind involves a difficult psychological inquiry.

Despite a varied and sometimes confused history, the mens rea inquiry looks at a specific actor's subjective mental state at the time of the crime. Such a subjective inquiry magnifies the importance of psychology. Rather than asking jurors to judge whether an actor or action was immoral or evil (as was the case historically), jurors are asked to determine what the defendant was thinking at the time of the crime. The Model Penal Code (MPC) builds on this approach by requiring analysis of the defendant's state of mind with respect to each element of an offense.

Do Legal Hierarchies Match Psychological Ones?

The MPC's hierarchy of mental states sets forth an incremental, linear approach to mental states and culpability. That is, for crimes with similar harms, the "higher" the mental state (i.e., the more intentional), the more severe the crime. As some commentators have pointed out, however, successfully using the hierarchy approach to determine culpability depends on the truth of the hierarchy. There are a number of reasons why the mens rea hierarchy might not work, even [*5] when legislative and judicial processes carefully define hierarchical mental states. Evidence suggests that

jurors might not listen to, remember, or use instructions about the meaning of certain mental state levels. n15 Rather than remembering the legal definition or properly applying jury instructions, however, jurors probably will rely on their common sense understanding of others' states of mind. n16 Some scholars argue that jurors consciously or unconsciously apply more general moral constructions in making decisions. n17 In any case (or in some combination), jurors will make state of mind determinations based mostly upon their lay conceptions of state of mind. n18

Commentators have debated the effectiveness of the MPC hierarchy of mental states. Scholar Larry Alexander has argued that the top three categories – purpose, knowledge and recklessness – do not serve distinct purposes and therefore can all be reduced to one category: recklessness. n19 Like recklessness, he argues, purpose and knowledge exhibit the "basic moral vice" of insufficient concern for the interests of others. n20 Joshua Dressler disagrees, arguing that "common intuition" dictates that one mens rea category cannot possibly account for [*6] variations in criminal culpability. n21 He states that "[a] bright line test is indefensible ... unless it produces results closely approximating those which persons, left to their own devices, would reach on a case-by-case basis." n22 Even with this debate and Dressler's reference to lay conceptions of mental state, no empirical studies have examined whether the legal hierarchy of mental states matches lay mental state judgments.

II. HOW PSYCHOLOGY ALLOWS US TO UNDERSTAND MENTAL STATE JUDGMENTS

From a purely psychological perspective, it is fundamental to explore the way that people explain behavior. Such explanations of behavior, known as "folk explanations," help guide people's understanding of each other, as well as enable them to adapt and shape their lives accordingly. n23

Developmental psychologists were among the first to investigate folk explanations. n24 In investigating how and when children acquire the ability to understand others' behaviors in daily life, psychologists found that children only fourteen months old can understand interpersonal behavior in basic "intention-relevant" units. n25 At just eighteen months, children develop the ability to infer another person's intentions. n26 While the legal relevance of these studies was not self-evident to psychologists or legal commentators, in hindsight the methodology began to reveal how psychological research on intentionality could eventually help to critique and improve legal knowledge of mental state judgments.

An important historical shift occurred when psychologists attempted to build a model to explain adult, rather than child, folk intentionality. n27 [*7] In one such endeavor, psychologists Bertram Malle and Joshua Knobe theorized that adults reference identifiable categories when judging other people's behavior. Their study indicated that perceivers refer to five categories when judging an actor's behavior as intentional: the actor must have (1) a desire for an outcome; (2) beliefs about a behavior leading to that outcome; (3) resulting intention to perform that behavior; (4) the skill to perform the behavior; and (5) the awareness of fulfilling the intention while performing the behavior. n28 Malle and Knobe's article did not specifically discuss legal implications of their findings, but the connection emerged in one of Malle's subsequent works.

Building on Malle's prior work, Malle and Sarah Nelson explicitly argued for a psychologically competent legal model of intentionality. n29 They argued that legal mens rea standards should be based upon mental state conceptions consistent with human inference, instead of creating a disconnect between the existing legal framework and psychological knowledge. n30 More specifically, they argued that Malle and Knobe's five-step system of intentionality should become the bedrock for mens rea judgments, rather than the variety of legal standards used today. n31 Their arguments took a big step forward by integrating psychological knowledge into mens rea scholarship. However, Malle and Nelson did not conduct empirical research on state of mind attributions in the legal context. n32 Nor did they discuss whether jurors have access to the detailed evidence needed to make judgments in a manner consistent with the five-step system. Yet, their logic craftily underscores the disconnect between legal policymaking and knowledge of the human mind. In doing so, they set the stage for empirical investigation of various standards of mental states in the legal context.

Even though no psychologists have tested how jurors actually make mens rea judgments, empirical research illustrates the legal importance [*8] of mental state judgments in guilty verdicts. This research indicates that jurors rely heavily on information about a defendant's mental state when making culpability judgments. Psychologists Norman Finkel and Jennifer Groscup examined notions of criminal culpability and punishment judgments in the context of mistake of fact and mistake of law. n33 In the study's questionnaires, Finkel and Groscup created hypothetical fact patterns that varied actors' mental state levels and victims' harm levels in order to determine how laypersons make culpability determinations when presented with such varying circumstances. n34 When testing the role of an actor's mental state in culpability judgments, they consistently found that culpability determinations begin and end with notions of intentionality. n35

By far the strongest factor in participants' culpability judgments was an actor's mental state. If, as Finkel and Groscup suggest, intentionality is truly the beginning and end of culpability judgments, then understanding how jurors determine defendants' mental states should be fundamentally important to criminal law.

Despite the strides taken by Finkel and Groscup's study, a key question remained unanswered: how do perceivers make mental state judgments? After all, the prosecution and defense rarely agree upon a defendant's mental state. The prosecution might argue that a defendant formed a specific intention to murder the victim. The defense might argue that the killing was not at all intentional, but instead occurred negligently. Either way, the mens rea of the defendant frequently remains unsettled and emerges as the focus of debate, with attorneys for both sides marshalling circumstantial evidence to argue the point.

Psychological research, therefore, has taught us two important lessons: that mental state judgments truly matter in criminal culpability judgments, and that understanding how people judge others' mental states is a worthwhile and manageable endeavor. These two [*9] lessons merge to create a simple conclusion: testing how mens rea judgments are made enables us to reform our laws consistent with its stated goals.

III. PSYCHOLOGICAL EVIDENCE SHOWS THAT BEHAVIORAL ATTRIBUTIONS VARY ACROSS CULTURES

If jurors do not make decisions in a manner consistent with mens rea tests, reformers should modify such tests to match both policy goals and psychological reality. Similarly, if only some jurors (such as those from identifiable majority cultural backgrounds) make decisions consistently with legal tests, such tests should be reformed to eliminate cultural bias. This cultural issue can be broken down into two parts. The first part focuses on culture and cultural psychology n36 by exploring how culture systematically influences the way people make judgments about others' states of mind. The second part focuses on the legal application: how should the law incorporate an understanding of cultural psychology into the law's goals?

A. How Does Culture Influence the Way People Make Judgments?

Like legal scholarship, psychological research, including folk intentionality studies, n37 often assumes the universality of human thought and ignores the influences of cultural differences. n38 According to psychologist Richard Nisbett and his colleagues, "when psychologists perform experiments ... it does not normally occur to them that their data may only apply rather locally, to people raised in a tradition of European culture." n39 However, work by cultural psychologists indicates that sets of basic beliefs about others' minds and behavior differ [*10] across cultures. n40 Working within the context of theory of mind and folk intentionality research, psychologist Angeline Lillard confronted cultural ignorance by systematically reviewing the principles underlying theory of mind research, giving each a cultural perspective. n41 Though she did not empirically test her theories, she used both cultural psychological works and anthropology-based ethnographies to support her claims. n42

Lillard summarized her theory of mind research as containing two different lines of thought. "Theory theory" proposes that people derive ideas about others solely from available evidence. It is known as a "scientist model of people as learners." n43 The other line of thought highlights "simulation," or the process whereby people place themselves in the shoes of the actor. As Lillard described, simulation "enables [people] to read minds because they re-evoked the other's mental state in themselves." n44

Under either "theory theory" or "simulation" processes, Lillard argued, the impact of culture has been ignored. n45 "Theory theory" assumes that others do things to fulfill their desires so long as nothing is impeding them (e.g. "he is walking toward something because he wants it"). n46 All cultures, however, do not think of mental states as preceding behavior. For example, Samoans traditionally define an action by its effect rather than the actor's intention. n47 Therefore, in [*11] some cultures, assumptions underlying "theory theory" might not be valid. n48 "Simulation's" cultural insensitivity derives from the assumption that people can effectively project themselves into the role of an actor. For members of the same culture, such a projection might not be difficult. However, perceivers from different cultures will perceive events based on their own experiences and perspectives. When the actor and observers have different cultural backgrounds, such a projection becomes even more difficult and may involve in-group preferences and out-group stereotypes. n49

In a more recent work, Lillard expanded her cross-cultural explanation of theory of minds to incorporate within-

U.S. cultural differences. n50 The new theory of minds model that she created highlighted the importance of culture in understanding other states of mind. For example, Lillard described how urban American children tend to use internal psychological attributions ("he helped me to catch bugs because he and I like to catch bugs") and rural American children more frequently use situational attributions ("she helped me pick up my books, because if she didn't I would have missed the bus"). n51

B. Empirical Studies: Culture Has a Systematic Influence on Judgments

In a related, but broader empirical effort, cultural psychologists over the past decade have discovered how perceptions, attributions, and decision-making processes differ across cultures. n52 Even cognitive biases and the fundamental attribution error, which legal commentators [*12] often examine as if they applied equally to all people, have been shown to be culturally bounded. n53 Using their new knowledge about cultural differences, researchers have developed overarching models about culture and decision-making. In particular, studies comparing Eastern and Western models of thought have yielded fascinating results that lend themselves to historical and cultural explanations.

Some of the more theoretical work comparing East Asian and American patterns of thought focuses on reasoning processes and contradiction. n54 For example, psychologists Peng and Nisbett examined the influence of Chinese notions of changeability and flux compared to Western notions of linearity, formal logic, and non-contradiction. n55 They presented participants with two potentially contradictory statements. For example, participants read statement A: "Two mathematicians have discovered that the activities of a butterfly in Beijing, China, noticeably affect the temperature in the San Francisco Bay Area." Participants then read statement B: "Two meteorologists have found that the activities of a local butterfly in the San Francisco Bay Area have nothing to do with temperature changes in the same San Francisco Bay Area." n56

When asked to rate their agreement or disagreement with the statements, after reading the second, potentially contradictory statement, Americans agreed more with the first statement they read and less with the second statement (compared to when they viewed the statements in isolation). n57 It did not matter which of the two statements was presented first. Chinese, on the other hand, believed both statements more when presented with the seemingly contradictory information of the second statement. n58 That is, Chinese not only tolerated contradiction, but also were more likely to believe each statement when presented with potentially contradictory information. n59 Peng and Nisbett explained their results by discussing historical and cultural notions of understanding. n60 Historically, Chinese people believed that the world constantly fluctuated and demonstrated [*13] its interconnectedness. n61 Americans, on the other hand, relied on principles similar to Aristotelian logic, emphasizing identity and non-contradiction. n62 In the legal setting, such results raise the issue of how a diverse group of jurors will apply legal inquiries, and whether such inquiries may be unintentionally culturally biased.

In a multi-cultural context, Eastern notions of a world in flux may challenge Western legal principles that attempt to isolate certain events and specific points in time. For example, Levinson, Peng, and Wang looked at how Chinese and Americans evaluated contractual behavior. n63 The researchers presented participants with factual scenarios containing various contract formation behaviors, such as a correspondence between supplier and purchaser, or negotiations between a home resident and a painter. After learning of a failure in each of the deals they read about, participants were asked to both judge the contractual intent and responsibility of the parties and to evaluate moral shortcomings of the actors. The results indicated that Chinese participants held more fluid conceptions of contracts than Americans. n64 That is, because they focused on after-the-fact moral judgments in determining pre-contractual intent, Chinese perceived contract formation as occurring at a specific point in time less frequently than Americans. n65 Many Western legal principles have such a time-specific focus, including the mens rea determination. Mens rea asks whether the defendant had a culpable state of mind at the time of the action. n66 Perceivers with Eastern or similar cultural perspectives may not think in such a time-isolated manner.

Building on general studies like those described above, cultural psychologists have recently begun labeling certain psychological principles as culture specific and investigating their operation. Some of the more interesting work has dealt with crime, responsibility, causation, and cognitive biases, though almost all such research has focused outside the legal context. For example, Morris and Peng studied how participants made attributions and responsibility judgments when presented with fact patterns relating to similar mass murders in China [*14] and the U.S. n67 They found that Americans explained murders by invoking presumed dispositions of the individual (such as the perpetrator's temperament, traits, and disposition), whereas Chinese explained the same events with reference to contextual factors (such as bad environments

and poor interpersonal relations). n68 A content analysis proved that media reports of the murders showed the same cross-cultural attribution patterns. n69

Morris and Peng also tested causal attributions across cultures. n70 In that study, the researchers showed participants computer simulations of fish swimming. When asked to describe why the fish swam in various ways (e.g. swimming towards a group or away from a group), Americans answered questions dispositionally (with regard to the individual fish) and Chinese answered questions based upon situational factors (with regard to the group). These findings underscore a fundamental difference illustrated by cultural psychology: members of Eastern and Western cultures view events and behaviors quite differently.

Levinson, Peng, and Wang also conducted tests in the legal context, and found that American participants judged that a party to a business deal intended to be bound by the deal more frequently than Chinese participants. n71 The researchers presented participants with stories of ambiguous business deals where the principles of offer and acceptance were unclear. They then asked participants to rank intentionality, responsibility, and other psychological and legal measures. The results from that study showed systematic differences in evaluating intentionality judgments and should translate beyond the contract law setting into other legal settings, including criminal law's mens rea inquiry.

Another study compared cross-cultural psychological judgments in the criminal law context. In a well-known project, scholars Hamilton and Sanders found that Americans and Japanese made attributions of responsibility and punishment quite differently. n72 Americans [*15] used mental state information in making responsibility judgments more often than Japanese. n73 Japanese tended to view an actor as part of a situation more than Americans, focusing on the context in making responsibility judgments. n74 Although they did not initially seek to test mental state judgments themselves, Hamilton and Sanders hypothesized that perceivers based their responsibility judgments in part on mental state variation. To that end, they created two mental state levels: "high" and "low." Participants were told either that a harm was "accidental" (low mental state) or "done out of anger" (high mental state).

When their manipulation checks initially turned up some results that they initially could not explain, Hamilton and Sanders compared American and Japanese mental state judgments, and found that Americans more often judged mental states as intentional than Japanese, while Japanese respondents more often concluded that the mental state was negligent. n75 These cultural differences resemble the findings of Levinson, Peng, and Wang n76 and lend support to the claim that mental state attributions vary across cultures.

C. Culture within the U.S.

Cultural differences in international mental state judgments between Americans and East Asians implicate international law standards and bear on the desirability of legal transplants. n77 Within the United States, however, the importance of culture in mens rea judgments depends upon the existence of cognitive differences across domestic cultures. Although cultural psychology's most influential studies thus far have examined culture on an international scale, some scholars have researched cultural differences within the United States. These studies highlight how unique cultural communities within the U.S. hold identifiable value systems and beliefs that deviate from majority communities. Certain American cultural communities have been found to stress unique conceptions of time orientation, oral expression, [*16] interdependence, conformity, harmony with nature, relationships, group welfare, and family obligations. n78 Such cultural differences likely manifest themselves not only in value systems and behaviors, but also in cognitive patterns, including mental state judgments. To date, however, no one has explored the implications of cultural differences within the U.S. on mental state judgments. n79 As the domestic power of cultural differences continues to emerge, fundamental inconsistencies in substantive law will become highlighted by such knowledge. n80

D. Incorporating Cultural Differences into the Law

As America has become more diverse, the importance of understanding culture has similarly increased. The law, in striving to regulate, properly incentivize, and deter human behavior, should seek to understand how predictable cognitive differences exist in different groups of people. n81 Certain concepts underlying the American legal system, developed primarily by European Americans, may show a cognitive psychological bias toward European American cultural constructs. While historically such biases might have impacted a smaller minority of people, in today's and tomorrow's America the impact of having potentially culturally ignorant laws and procedures has greatened. The risk is one of bias and discrimination. If laws are formed in a way that assumes a cultural and psychological basis of a European-American world, then non-European Americans could get caught in a cultural gap. In a country where population predictions

indicate a continued increase in diversity, this cultural gap could be significant. n82 Reformers must redraft laws that contain implicit cultural biases in order to contemplate a culturally diverse country.

[*17] In the current context, we must ask whether different cultural groups apply mens rea inquiries in systematically different ways. If we learn that differences exist, we must investigate the origins of those differences. How many of the differences are solely due to the role of diversity in decision-making (a desired result), and how many are due to ethnocentric legal standards (an undesired result)? For example, if asking jurors to consider whether a defendant "intended to kill" evokes predictably divergent reasoning processes and responses across cultures, we must investigate whether the standard unnecessarily frames or limits the culturally broad cognitive processes that should exist in the jury system. Can a diverse jury conduct an appropriate inquiry in the face of legal standards that contain embedded cultural assumptions?

IV. EMPIRICAL EXAMINATION OF MENS REA IN A CULTURAL CONTEXT

I devised a study designed to investigate how people determine mental states and how such judgments vary across cultures. In particular, I examined how perceivers make mental state judgments when presented with specific mens rea inquiries. I also tested these judgment processes across cultures (in the U.S. and China) and investigated how cultural differences emerged in mens rea decision-making.

A. Hypotheses:

I proposed that each mens rea inquiry carries with it a unique set of lay psychological assumptions that impact the decision-making process. I further proposed that legal assumptions relating both to the quality and hierarchy of mens rea judgments would only sometimes corroborate with psychological results. In addition, I predicted that cultural differences in mental state judgments would emerge in a systematic fashion. Following existing research that highlights Westerners' focus on an individual's disposition when attributing blame, I predicted that Americans would make higher mental state judgments than Chinese. That is, compared to Chinese perceivers, Americans would perceive actors as having acted more intentionally and with more knowledge.

[*18]

B. Methods and Materials:

I recruited participants in the United States and China. Undergraduate students at Beijing University participated in the study for pay. UC Berkeley undergraduate students taking part in a psychology course participated in the study. n83 Harvard University students who were in a student-commons area participated for the chance to win a gift certificate. n84

I used a multiple variable design in the study. n85 Participants received one of four forms of a questionnaire. n86 I originally drafted the research materials in English with consideration for cross-cultural understanding of the concepts. Separate bi-lingual translators converted the survey into Chinese and then back into English. The agreement between translators was high. Consulting with appropriate authorities, I resolved the few discrepancies that emerged.

The scenarios presented to participants provided stories of harms that omitted direct reference to an actor's mental state. That is, participants could only infer an actor's mental state from circumstantial facts. n87 I asked participants to complete a questionnaire that included four fact pattern vignettes. Each vignette presented facts in which a person was injured by a state of mind ambiguous actor. For example, participants read about a woman who saw her boyfriend kissing another woman. After seeing the kiss, the woman ran out of the building crying. Her boyfriend ran after her to her car. While he stood behind her car, the crying woman started the car and accelerated quickly backward, striking her boyfriend with the car. n88

[*19] Prior to moving on to dependent variable measures, some of the participants were asked to complete four guilt questions. n89

C. Measures

The dependent variables focused on state of mind attributions. Some variables tested included:

1) Common Law-Intent (kill) n90

- 2) Common Law-Intent (hurt)
- 3) Common Law-Extreme Recklessness (kill)
- 4) MPC/Common Law-Recklessness (hurt)
- 5) MPC-Purpose (kill)
- 6) MPC-Purpose (hurt)
- 7) MPC-Knowledge (hurt)

As indicated in the above list, I presented participants with various mental state judgments that are similar to legal judgments, both common law and Model Penal Code (MPC). Questions 1 and 2 tested the common law intentionality judgment by asking about the actor's intent to kill and intent to hurt. In the murder or attempted murder context, an intent to kill can constitute the "malice aforethought" required by common law. n91 Question 3, which I refer to as the "extreme recklessness" question, asked about an extremely reckless disregard for the value of human life, another mental state that can qualify an accused for common law murder. n92 Question 4 tested the MPC and common law concept of "recklessness," which is met when an actor "consciously disregards a substantial and unjustified risk that the material element exists or will result from his conduct." n93 Questions 5 [*20] and 6 tested the MPC standard of "purpose," which denotes a "conscious object to engage in conduct of that nature or to cause such a result." n94 Legal commentators treat this inquiry as analogous to the common law intent inquiry. Question 7 tested the MPC concept of "knowledge," which is met when an actor is "aware that it is practically certain that his conduct will cause such a result." n95

D. Results

1. The MPC Mental State Hierarchy. I first examined mental state judgments in the context of testing the MPC's mens rea hierarchy. Examining aggregate mean responses indicated that the hierarchy of mental states provides meaningful distinctions between levels of mental states. For MPC based questions that asked about mental states relating to hurting the victim, significant variance emerged in the MPC-anticipated order between American judgments of purpose ($m=4.11$), n96 knowledge ($m=4.24$), and recklessness ($m=4.42$). These mean scores generally demonstrate that participants maintained a folk mental state hierarchy: purpose above knowledge above recklessness. As confirmed by a "paired samples T-test," the differences between purpose and recklessness responses, as well as between purpose and knowledge responses, were statistically significant ($p<.01$ and $p<.05$, respectively). n97 The differences between knowledge and recklessness responses were only marginally statistically significant ($p<.07$). These results generally, though not perfectly, support a theory that meaningful differences exist in MPC hierarchy levels. n98

[*21] However, because the MPC hierarchy results presented above aggregated all four fact patterns that the participants scored, the results do not mean that the mens rea hierarchy worked in each individual case. In order to test the possibility that the hierarchy worked only in some cases, I computed means for each fact pattern and ran a series of paired sample t-tests on American responses. Examining mean responses separately in each of the four cases suggested that the hierarchy only held true once. That is, for the same three supposedly hierarchical MPC variables that I discussed above (purpose, knowledge, and recklessness), the hierarchy held true only in one of four fact patterns. In two of the four cases, multiple paired sample t-tests indicated that none of the MPC mental state categories significantly differed from each other. In the other fact pattern, participants scored both knowledge and purpose as higher than recklessness (of marginal significance). But results did not indicate a significant difference between purpose and knowledge scores.

Table 1. American Judgments of MPC Mental States (by Case)

	Purpose	Knowledge	Reckless
Case 1	4.04	3.90	3.97
Case 2	4.35.	4.27*	4.64*
Case 3	5.01	5.02	4.91
Case 4	3.06*	3.77*	4.17*

* indicates statistical significance level of $p < .05$ comparing marked variables within the case.
 . indicates marginal statistical significance level of $p = .07$ comparing marked variables within the case.

2. Mental States Generally. Beyond examining the truth of the MPC hierarchy, other aggregate mean results indicated that certain mens rea responses emerged in unanticipated ways. For example, the supposedly analogous concepts of intent and purpose did not reveal analogous results. A paired samples T-test revealed that purpose judgments were viewed as being a more serious (higher) mental state than intent judgments. These results emerged for both Americans and Chinese, and for judgments relating to both hurting and killing the victims (in each case, $p < .01$).

Beyond a basic examination of means, in order to further examine the relationship among all mental state judgments, I ran Pearson correlations to evaluate aggregate indices of the state of mind [*22] scores. For American participants, all mental state indices significantly correlated with each other, in each case $p < .001$. Similarly, for Chinese, almost all mental state indices significantly correlated with each other (ranging from $p < .001$ to $p < .05$).ⁿ⁹⁹ These results, which showed almost universal mental state correlations, are not surprising and indicate that mental state judgments are at least related to one another. As I discuss later, I further examined the relationship of these correlations through a linear regression analysis.

3. Cultural Differences. To test cultural differences in mens rea judgments, I conducted an analysis of variance on mental state judgments. A "one-way" ANOVAⁿ¹⁰⁰ on the culture variable revealed statistically significant cultural differences on mental state judgments. As demonstrated in Table 2, *infra*, Chinese consistently made higher state of mind judgments than Americans, including judgments of extreme recklessness, intent to kill, purpose to kill, knowledge, and deliberation.

To test cultural differences in mock-jury guilty verdicts, I ran a series of chi-square analyses. These analyses revealed that Chinese were statistically more likely than Americans to convict mock-defendants for attempted murder on some of the criminal fact patterns,ⁿ¹⁰¹ and for assault and battery on all fact patterns.ⁿ¹⁰² In addition, Chinese scored defendants as more guilty than Americans on guilty scale (0-100) judgments for both attempted murder and assault and battery.

Table 2 Mean and Standard Deviation of Indices by Culture (ANOVA)

Indices	Chinese		American		F
	Mean	SD	Mean	SD	
Intent to Kill	3.25	.82	2.98	.97	5.15*
Intent to Hurt	4.61	1.10	4.36	1.16	2.73
Extreme Recklessness	4.93	1.06	4.11	1.30	26.00***
Reckless	4.27	1.05	4.42	1.22	1.01
Purpose to Hurt	4.36	1.09	4.11	1.17	2.78
Purpose to Kill	3.11	.82	2.84	.96	5.37*
Knowledge	4.74	1.03	4.24	1.11	12.48***
Deliberate	3.71	.85	2.92	.99	42.79***
Premeditate	4.05	1.03	3.94	1.13	.599
Att. Murder (0-100)	51.08	12.06	44.26	18.33	5.13*
Ass. & Batt. (0-100)	77.37	15.63	59.55	16.53	34.82***

Significance Values (Indicating Significant Differences Across Cultures)

* $p < .05$

** $p < .01$

*** $p < .001$

4. Analyzing the Process of Mens Rea Judgments. Next, in order to investigate participants' state of mind determinations further, I ran a series of multiple linear regression analyses (split by country) on each of the state of mind questions. These tests were designed so that results would indicate the predictor variables for each state of mind measure. That is, they would allow me to understand what other evaluation judgments were used by participants when making particular mental state judgments. In addition to the nine mental state judgments that participants answered, they also responded to several psychological [*23] measures. These measures included questions relating to the morality and character of the actor, the actor's deservingness of punishment, and the victim's right to compensation, among others. By looking at the regression analysis for each mental state judgment, I could see which other questions acted together to allow a statistically significant prediction on the mental state judgment at issue. n103 That is, I could determine which questions, acting together, allow for a prediction of a given mental state inquiry.

Results of a regression analysis on intent to kill judgments for American participants indicated several variables that were statistically significant in predicting them, including purpose judgments, knowledge judgments, and a psychological measure of "bad person" judgments, a measure that was designed to test the role of an actor's character in perceivers' decision-making. By contrast, the regression [*24] on Chinese intent to kill judgments suggested two significant predictors: purpose to kill judgments and premeditation judgments. The significance of the "bad person" predictor in American judgments indicates that intent to kill judgments relied in part on determinations of an actor's character. For Chinese participants, predictors encompassed only other state of mind variables.

For knowledge judgments, regression results suggested that American participants were more likely to believe that the defendant acted with knowledge when they judged the action as immoral. Such a result once again raises the question of the degree to which judgments of an actor's moral character affect mental state judgments. In addition, the psychological measures of severity of punishment deserved, how guilty the actor should feel, the responsibility of the victim for what happened, and bad person judgments all served as predictors for knowledge judgments. Thus, psychological factors played a large role in judgments of an actor's knowledge. The mental state judgments of intent to kill and purpose to hurt also served as predictors of knowledge judgments. For Chinese, intent to hurt and deliberation judgments were the only significant predictors of knowledge judgments. Thus, Chinese mental state judgments were predicted once again only by other mental state judgments. n104

In contrast to results on the intent to kill and knowledge variables, regression analysis on American recklessness judgments indicated that other mental state judgments acted as the sole predictors, with no psychological measures acting as predictors. Intent to hurt and extreme recklessness judgments served as significant predictors of recklessness judgments. For Chinese, judgments of responsibility of the actor, another psychological measure, constituted the only significant predictor of recklessness judgments.

5. Relationship between Guilty Judgments and Mens Rea. I also tested the relationship between guilty judgments and mens rea judgments. More specifically, I tested the predictor variables in guilty scale judgments. A series of linear regression analyses on attempted murder scale judgments illuminates the process by which participants made guilt determinations. Analysis on American attempted murder verdicts indicated two significant predictors of guilt: intent to kill and extreme recklessness. The premeditation variable was a marginally [*25] significant predictor. These results appear to corroborate Finkel and Groscup's findings that culpability "begins and ends" with intentionality. Yet, only selected mental states predicted guilt. Further research must investigate the role of other mental state judgments in guilty verdicts. For Chinese responses, the regression revealed no individually significant predictors of guilt for attempted murder, and only punishment as a marginal predictor.

Results of a linear regression analysis on assault and battery guilty scale judgments indicated three significant predictor variables for Americans: extreme recklessness, deliberation, and monetary relief. n105 In contrast with the results for attempted murder, intent judgments were not significant predictors of guilty scale judgments of assault and battery. Instead, other mental state judgments predicted guilt. For Chinese responses, the regression suggested two significant predictors: intent to hurt and punishment. Extreme recklessness was a marginally significant predictor for Chinese responses.

Finally, I examined the relationship between guilty verdict judgments and guilty scale judgments. In particular, I calculated the mean responses on the guilty scale for guilty and non-guilty judgments. Such a calculation was intended to shed light on the question of how guilty do jurors think defendants have to be before finding them guilty. Results indicated that, on average, Americans who judged defendants guilty scored the defendant guilty 82.11 out of a possible

100. Chinese scored the defendant guilty 78.61 out of a possible 100 (recall that 0 stood for "definitely not guilty" and 100 stood for "definitely guilty"). For not-guilty judgments, Americans scored their average not-guilty defendant as 25.91 out of 100, while Chinese scored their average not guilty defendant as 27.43 out of 100.

E. Discussion of Results

The MPC mens rea hierarchy assumes that mental states function incrementally. Yet results indicated that, while the hierarchy generally succeeded when all fact pattern results were combined for statistical analysis, the hierarchy was not psychologically accurate in three out of four individual fact patterns. Legal commentators must ask themselves whether these results are sufficient. If the goal of the hierarchy is to provide a framework that loosely represents American cognitive understanding of mental states, it likely succeeds. Yet if the [*26] goal is to provide a legal structure that embraces a true model of thought, the hierarchy likely fails.

Looking beyond the hierarchy, people decided supposedly similar questions in different ways and decided supposedly different questions in similar ways. The vacillation in predictor variables from question to question indicated that subtle differences in mental state inquiries had a more than subtle impact on decision-making processes. Some of these predictor variables, such as "bad person" judgments and immorality judgments, n106 raise the question of whether irrelevant personality traits or situational factors (such as the defendant's race) might lead to harsher mental state judgments through the workings of unconscious biases.

The results also demonstrate the importance of understanding culture in legal decision-making analysis. As predicted, cultural differences persisted throughout state of mind attributions as well as in guilty judgments. Both mean scores, as well as regression analyses, indicated that Chinese make mental state judgments in different ways than Americans. n107 These culture-based results lead to two conclusions. First, cultural differences influence both state of mind processes and decisions. n108 Although results in the present experiment compared two different nations (clearly relevant in international law), n109 [*27] domestic law should also display sensitivity to cultural variances. Future research should seek to investigate whether and how cultural background within the U.S. impacts state of mind determinations. Legal standards should not just work properly for a certain subset of a population.

Because there is no true way to evaluate whether mens rea judgments are being made "correctly" by one cultural group or another, we must learn more about the cultural assumptions embedded in certain legal inquiries. We know that culture influences mental state judgments. Now we must investigate how cultural differences are impacted by variations within and across legal inquiries. To do so requires taking a critical look at our inquiries to ensure that they accommodate cultural variation while accurately effectuating policy goals. A European American psychological point of view, embodied in a mental state inquiry, is not conducive to achieving a just legal system. The correct view preserves policy goals while respecting cultural differences.

Before jumping to conclusions about the inefficacy of legal mental state inquiries, these results warrant a caution. True jury trials do not present over half a dozen mental states at once. Instead, they rely on the charge and the formulation in that jurisdiction. The state of mind judgments and predictor variables I tested thus do not directly imitate the legal process. Future research should be conducted in more realistic legal situations, where fewer mental state terms are presented in any one situation.

The results of the regression analysis on scaled guilty judgments indicated that, as prior research has revealed generally, culpability does in fact start with mental state judgments for Americans. Not all mental state judgments tested were significant predictors of guilt, [*28] however. For attempted murder judgments, knowledge, deliberation, and purpose judgments did not generate a significant predictive effect on guilt. For assault and battery judgments, intent, purpose, and knowledge judgments similarly failed to predict guilt. These findings indicate that the variety of mental states in American jurisprudence do not equally impact guilt determinations.

V. CONCLUSION: BRIDGING PSYCHOLOGICAL KNOWLEDGE AND LEGAL POLICY

The proliferation of legal standards based on policy considerations has created a gap between legal standards and human decision-making processes, particularly when it comes to understanding how humans perceive others' mental states. By failing to investigate how people make state of mind decisions in the legal setting, discussion of mens rea and other mental state inquiries have focused too narrowly on policy and not enough on the psychological reality of legal standards. Empirically investigating the relationship between law and human cognitions is the first step in solving the problem.

The legal community must embrace cultural psychology's empirical contribution. The consistent development of psychological theory demands investigation in the legal realm, driven by cross-cultural studies indicating that cultural systems of thought continuously evoke systematically different results. The systematic nature of these results, and the results I presented, calls for understanding and application. The law must heed these calls. When diversity of background contributes directly to diversity of thought, the law cannot blindly assume that its substantive standards present culturally neutral instruments of implementation. The law's instruments must be examined, honed, and tuned. They must evolve into culturally sensitive pieces that allow for the workings of diversity within a neutral, understanding, and culturally cognizant legal structure.

In this Paper, I have attempted to challenge the existing legal understanding of the human mind with new knowledge of the human mind itself. In criminal law and so many other contexts, the law hinges judgment on an assumption that we can evaluate a person by something that cannot be seen or touched, but something mental. In this way, the law recognizes part of the essence of humanity. Psychology has blessed us with both an emerging knowledge of this piece of humanity and the cultural caution that its truths are not universal. Instead, [*29] its truths are vibrant, diverse, and ripe for discovery. The law has embedded psychology. Perhaps psychology can help provide greater meaning to the law.

FOOTNOTES:

n1. Angeline Lillard, *Developing a Cultural Theory of Mind: The CIAO Approach*, 8 *Current Directions in Psychol. Sci.* 57 (1999).

n2. I focus primarily on criminal law rather than on other legal disciplines' mental state inquiries because of the readily available variety of tests that could be employed in an empirical study.

n3. When defendants do concede the intentionality of their actions, many claim affirmative defenses (such as self-defense).

n4. The examination of embedded psychological notions in the law constitutes a relatively new field and includes previous work by the author. See Justin D. Levinson & Kaiping Peng, *Different Torts for Different Cohorts: A Cultural Psychological Critique of Tort Law's Actual Cause and Foreseeability Inquiries*, 13 *S. Cal. Interdisc. L.J.* 195 (2004); Justin D. Levinson et al., *Let's Make a Deal: Understanding the Cultural Psychological Basis of Contract Formation* (2003) (unpublished manuscript, on file with the University of California, Berkeley Department of Psychology).

n5. Other than in a few footnotes, international law assumptions and implications are not critiqued in this Article, but emerge as a natural area for cultural examination. For example, when non-Western cultural communities adopt Westernized laws, cultural psychological biases in the laws themselves may frustrate well intentioned policy decisions.

n6. Judging people's states of mind is pervasive in the law and crosses legal disciplines and boundaries. Despite the focus of this paper on mens rea as a prime example, improving the law to account for psychological knowledge is not limited to any one area of the law. From tort laws on battery to probate law on capacity, from corporate fraud law to constitutional law on discrimination, the law is saturated with important references to understanding the minds of others.

n7. Adam Candeub, Comment, Motive Crimes and Other Minds, *142 U. Pa. L. Rev.* 2071, 2075 (1994). See also D.E. Blackman, On the Mental Element in Crime and Behaviorism, in *Law and Psychology, Papers Presented at SSRC Law and Psychology Conferences 1979-1980*, 113 (Sally Lloyd-Bostock ed. 1981).

n8. *Morissette v. United States*, 342 U.S. 246, 252 (1952).

n9. Martin R. Gardner, The Mens Rea Enigma: Observations on the Role of Motive in the Criminal Law Past and Present, *1993 Utah L. Rev.* 635, 638 (1993) (calling mens rea "elusive").

n10. In this Article, I focus on the initial (subjective) mens rea inquiry. Some mens rea laws, such as those dealing with affirmative defenses, do import objective notions of the "reasonable person."

n11. Gardner, *supra* note 9, at 640.

n12. Model Penal Code 2.02(4) (1985). The Model Penal Code (or variations of it) has been codified by well over half of the states in the U.S. William S. Laufer, Corporate Bodies and Guilty Minds, *43 Emory L.J.* 647, 657-58 (1994) (pointing out that thirty-seven states had adopted some or all of the MPC). See also Gerald E. Lynch, Towards a Model Penal Code, Second (Federal?): The Challenge of the Special Part, *2 Buff. Crim. L. Rev.* 297 (1998) (highlighting the influence of the MPC on judicial thinking and legal education as well as in state law).

n13. The hierarchy approach is not limited to the MPC, though it serves as a clear example. Hierarchical notions are present in common law as well, and even outside of criminal law.

n14. Kenneth W. Simons, Should The Model Penal Code's Mens Rea Provisions Be Amended? *1 Ohio St. J. Crim. L.* 179, 180 (2003).

n15. Research findings in a variety of areas indicate that jurors often do not listen to instructions. See Jonathan D. Casper & Kennette M. Benedict, The Influence of Outcome Information and Attitudes on Juror Decision Making in Search and Seizure Cases, in *Inside the Juror* 65 (Reid Hastie ed., 1993) (indicating that jurors cannot ignore instructions to disregard evidence). For example, jurors have been shown to ignore standards for insanity. A variety of studies indicated that mock jurors' insanity acquittal rates did not differ when different versions of the insanity instruction were given. See Norman J. Finkel, The Insanity Defense: A Comparison of Verdict Schemas, *15 Law & Hum. Behav.* 533 (1991); Norman J. Finkel, The Insanity Defense Reform Act of 1984: Much Ado About Nothing, *7 Behav. Sci. & L.* 403 (1989). Examination of insanity acquittals in states that changed formulations also revealed no differences. Such results might indicate that jurors do not pick up distinctions in mental state notions such as insanity or may decide based on lay concepts of insanity. However, another possibility is that the standards are not so different from one another. Sanford H. Kadish & Stephen J. Schulhofer, *Criminal Law and its Processes* 956 (6th ed. 1995).

n16. Some scholars have focused on notions of "common sense justice" to support positions like this one. See

Norman J. Finkel, *CommonSense Justice: Jurors' Notions of the Law* (1995) (distinguishing between "common sense" and "commonsense"); Paul H. Robinson & John M. Darley, *Justice, Liability & Blame: Community Views and the Criminal Law* (1995); Rita James Simon, *The Jury and the Defense of Insanity* (1967); Norman J. Finkel & Jennifer L. Groscup, *When Mistakes Happen: Commonsense Rules of Culpability*, 3 *Psychol. Pub. Pol'y & L.* 65 (1997).

n17. Daniel Kahneman et al., *Shared Outrage, Erratic Awards*, in *Punitive Damages: How Juries Decide* 31 (Cass R. Sunstein et al. eds., 2002); see also Dan Simon, *A Third View of the Black Box: Cognitive Coherence in Legal Decision Making*, 71 *U. Chi. L. Rev.* 511 (2004).

n18. By relying on juries to import notions of community values, the law assumes as much. See Randolph N. Jonakait, *The American Jury System* (2003).

n19. Larry Alexander, *Insufficient Concern: A Unified Conception of Criminal Liability*, 88 *Cal. L. Rev.* 931, 931 (2000).

n20. *Id.*

n21. Joshua Dressler, *Does One Mens Rea Fit All?: Thoughts on Alexander's Unified Conception of Criminal Culpability*, 88 *Cal. L. Rev.* 955 (2000).

n22. *Id. at* 963.

n23. Bertram F. Malle, *How People Explain Behavior: A New Theoretical Framework*, 3 *Personality & Soc. Psychol. Rev.* 23, 23 (1999).

n24. See Henry M. Wellman, *The Child's Theory of Mind* (1990).

n25. Bertram F. Malle, *The Relation Between Language and Theory of Mind in Development and Evolution*, in *The Evolution of Language Out of Pre-Language* 265, 267 (T. Givon & Bertram Malle eds., 2002); see also Karen Bartsch & Henry M. Wellman, *Young Children's Attribution of Action to Beliefs and Desires*, 60 *Child Dev.* 946, 958 (1989). In Bartsch and Wellman's study, children were asked: "Why is Jane looking for the kitten under the piano?" A common response: "She thinks it's under there." *Id.*; Alison Gopnik & Andrew N. Meltzoff, *The Child's Theory of Action, in Words, Thoughts and Theories* 125 (Alison Gopnik & Andrew Meltzoff eds., 1997).

n26. Malle, *supra* note 25, at 267.

n27. Bertram F. Malle & Joshua Knobe, The Folk Concept of Intentionality, 33 J. Experimental Soc. Psychol. 101 (1997).

n28. Id. See also Bertram F. Malle & Joshua Knobe, Which Behaviors Do People Explain? A Basic Actor-Observer Asymmetry, 72 J. Personality & Soc. Psychol. 288 (1997).

n29. Bertram F. Malle & Sarah E. Nelson, Judging Mens Rea: The Tension Between Folk Concepts and Legal Concepts of Intentionality, 21 Behav. Sci. & L. 563 (2003).

n30. Id. Malle and Nelson do point out, however, that notions of "intentionality" that Malle and Knobe tested are likely different from notions of "intent" tested in the law. See Joshua Knobe, Intention, Intentional Action and Moral Considerations, 64 Analysis 181 (2004), for a discussion of the language-based differences of "intentionality" and "intent."

n31. Malle & Nelson, *supra* note 29, at 569.

n32. Instead, their empirical work focused on building theories related to intentionality in the legal context. For example, they tested the relationship between intentionality and blame.

n33. Finkel & Groscup, *supra* note 16, at 67.

n34. Yet, Finkel and Groscup did not test how participants made mental state judgments. Instead, they presented mental state information as a given, manipulated "levels" of mental state, and judged reactions to such manipulations within a factual scenario. For example, in a high intentionality condition, study participants were told that an actor intended to shoot a tree stump, but instead shot a victim. See John M. Darley et al., Community Standards for Defining Attempt, 39 Am. Behav. Scientist 405 (1996) (comparing legal standards to community views about attempt, but assuming mental states as a known factor); John M. Darley & Charles W. Huff, Heightened Damage Assessment as a Result of the Intentionality of the Damage Causing Act, 29 Brit. J. Soc. Psychol. 181 (1990).

n35. Finkel & Groscup, *supra* note 16, at 101.

n36. Scholars define cultural psychology as the study of "the way the human mind can be transformed, given shape and definition, and made functional in numerous ways that are not uniformly distributed across cultural communities." Levinson & Peng, *supra* note 4, at 203. See also Richard A. Schewder, Cultural Psychology - What is It?, in Readings in Cultural Psychology: Theoretical, Methodological and Empirical 23 (Kaiping Peng ed., 2000) (stating "[a] discipline is emerging called 'cultural psychology'... and its time may have arrived").

n37. Folk intentionality research is more broadly referred to as "theory of minds" research.

n38. Richard E. Nisbett et al., *Culture and Systems of Thought*, 108 *Psychol. Rev.* 291 (2001); see also Angeline Lillard, *Ethnopsychologies: Cultural Variations in Theories of Mind*, 123 *Psychol. Bull.* 3 (1998). It is worth noting that brain studies in other areas of psychology, such as language acquisition, have shown cultural differences. M.W. Chee et al., *Mandarin and English Single Word Processing Studied with Functional Magnetic Resonance Imaging*, 19 *J. Neuroscience* 3050 (1999).

n39. Nisbett et al., *supra* note 38, at 305.

n40. *Id.*; see generally Lillard, *supra* note 38.

n41. Lillard, *supra* note 38; see Henry Wellman, *Culture, Variation, and Levels of Analysis in Folk Psychologies: Comment on Lillard*, 123 *Psychol. Bull.* 33 (1998) (responding to Lillard's article and calling a cultural understanding of theory of mind "a sorely needed endeavor"); see also Mary Gauvain, *Culture, Development, and Theory of Mind: Comment on Lillard*, 123 *Psychol. Bull.* 37 (1998) (pointing out that adding a cultural dimension to theory of mind work enhances, rather than undermines, the theory).

n42. Lillard, *supra* note 38, at 7. Unlike Lillard, psychologists Tardif and Wellman did empirically test conceptions of mental states across cultures in children in China and the U.S., finding only minimal cultural differences, particularly relating to timing of development. Though these findings are interesting, they tend to indicate that cultural differences in state of mind develop after a certain age, rather than indicating that there are no cultural differences in understanding mental states. Twila Tardif & Henry M. Wellman, *Acquisition Of Mental State Language in Mandarin-and Cantonese-Speaking Children*, 36 *Developmental Psychol.* 25 (2000). Cultural Psychology as a discipline is examined *infra* page 11.

n43. Lillard, *supra* note 38, at 5; see Alison Gopnik & Henry M. Wellman, *The Theory Theory*, in *Mapping the Mind: Domain Specificity in Cognition and Culture* 257 (Lawrence A. Hirschfeld & Susan A. Gelman eds., 1994).

n44. Lillard, *supra* note 38, at 4; see J. Heal, *Simulation v. Theory Theory: What is at Issue*, in *Objectivity, Simulation, and the Unity of Consciousness* 129 (C. Peacocke ed., 1994).

n45. Lillard, *supra* note 38, at 4-5.

n46. Some jurisdictions attempt to simplify things for jurors by giving similar instructions. Such instructions suffer from the same cultural shortcomings as "theory theory."

n47. Lillard, *supra* note 38, at 13.

n48. Even so, its evidence is strong in European American culture, where the role of intentionality in explaining behavior has even expanded to inanimate objects (consider the phrase "the car does not want to start"). Lillard, *supra* note 38, at 7.

n49. See discussion of in-group and out-group biases, Justin D. Levinson, *Mens Rea: A Psychologically Embedded Inquiry* (unpublished L.L.M. Thesis, Harvard University) (on file with Harvard Law School Library) (2004); see also Daniel R. Ames, *Inside the Mind Reader's Tool Kit: Projection and Stereotyping in Mental State Inference*, 87 *J. Personality & Soc. Psychol.* 340, 341 (2004). Ames argues that when perceivers are dissimilar to their "mind-reading" targets, they are more likely to use stereotypes to make mental state inferences.

n50. Lillard, *supra* note 1, at 59. In doing so, she proposed a new approach to theory of mind, called the "CIAO" (culture, introspection, analogy, and ontogeny) model.

n51. Lillard noted that these situational rural American responses resemble Chinese Confucian thought patterns. *Id.*

n52. Nisbett et al., *supra* note 38; Li-Jun Ji et al., *Culture, Control, and Perception of Relationships in the Environment*, 78 *J. Personality & Soc. Psychol.* 943 (2000); Michael W. Morris & Kaiping Peng, *Culture and Cause: American and Chinese Attributions for Social and Physical Events*, 67 *J. Personality & Soc. Psychol.* 949 (1994); Ara Norenzayan et al., *Cultural Similarities and Differences in Social Inference: Evidence from Behavioral Predictions and Lay Theories of Behavior*, 28 *Personality & Soc. Psychol. Bull.* 109 (2002); see also Levinson et al., *supra* note 4.

n53. Morris & Peng, *supra* note 52; Nisbett et al., *supra* note 38.

n54. Kaiping Peng & Richard E. Nisbett, *Culture, Dialectics, and Reasoning About Contradiction*, 54 *Am. Psychologist* 741 (1999); Nisbett et al., *supra* note 38.

n55. Peng & Nisbett, *supra* note 54.

n56. *Id.* at 741.

N57. *Id.* at 749.

n58. *Id.*

n59. *Id.*

n60. *Id.* at 743.

n61. *Id.*

n62. *Id.* at 744.

n63. Levinson et al., *supra* note 4.

n64. *Id.*

n65. *Id.*

n66. Other conceptions of time isolation are pervasive in American law. In addition to contract formation and mens rea, consider other areas of law such as capacity in forming a will.

n67. Note that these studies by psychologists focused on lay judgments, not legal judgments.

n68. See Morris & Peng, *supra* note 52; see also Fiona Lee et al., Explaining Real Life Events: How Culture and Domain Shape Attributions, 22 *Personality & Soc. Psychol. Bull.* 732 (1996).

n69. Morris & Peng, *supra* note 52 (conducting a coding study analyzing the newspaper articles that depicted the murders). For other work on cultural differences in attribution patterns, see also Li-Jun Ji et al., *supra* note 52; Joan Miller, Culture and the Development of Everyday Social Explanation, 46 *J. Personality & Soc. Psychol.* 961 (1984).

n70. Morris & Peng, *supra* note 52.

n71. Levinson et al., *supra* note 4.

n72. See generally V. Lee Hamilton & Joseph Sanders, *Everyday Justice* (1992).

n73. *Id.* at 130.

n74. Id.

n75. Id. at 109.

n76. Levinson et al., *supra* note 4. Levinson et al. tested Chinese respondents while Hamilton and Sanders tested Japanese respondents. Though results of Chinese studies and Japanese studies are far from interchangeable, they fit into larger categories of psychological theory relating broadly to comparisons of Western and East Asian cultural patterns of thought. See Nisbett et al., *supra* note 38.

n77. See generally Amir N. Licht, Legal Plug-Ins: Cultural Distance, Cross-Listing, and Corporate Governance Reform, 22 *Berkeley J. Int'l L.* 195 (2004).

n78. See Gerardo Marin & Barbara Marin, *Research with Hispanic Populations* (1991); Laura Uba, *Asian Americans: Personality Patterns, Identity, and Mental Health* (1994); James M. Jones, *Racism in Black and White: A Bicultural Model of Reaction and Evolution*, in *Eliminating Racism: Profiles in Controversy* 117 (Phyllis A. Katz & Dalmas A. Taylor eds., 1988); Carolyn Attneave, *American Indians and Alaska Native Families: Emigrants in Their Own Homeland*, in *Ethnicity and Family Therapy* 55 (Monica McGoldrick et al. eds., 1982).

n79. Such a project should follow this one, as the focus of the current empirical study was international. See *infra* Section IV for a description and discussion of the study.

n80. See Justin D. Levinson, *Suppressing the Expression of Community Values in Juries: How "Legal Priming" Systematically Alters the Way People Think*, 73 *U. Cin. L. Rev.* 1059 (2005) for a discussion of the power of the legal culture in America.

n81. See Levinson & Peng, *supra* note 4.

n82. See U.S. Census Bureau, *U.S. Interim Projections by Age Sex Race, and Hispanic Origin*, <http://www.census.gov/ipc/www/usinterimproj/> (last visited 4/23/04) (displaying population projections until 2050, based on numbers in 2000 census).

n83. The average age was 20.01 for the American sample and 22.18 for the Chinese sample. 60.6% of the Chinese sample was female and 56.0% of the American sample was female.

n84. Id.

n85. I used both "between subjects" variables and "within subjects" variables. Between subjects variables present one level of a condition to one group of randomly assigned participants, and a separate level of the condition to another group. Within subjects variables present both conditions of the same variable to all participants. See supra note 49, Levinson, for a complete description of all of the variables.

n86. Including the culture variable, there were eight forms. Chinese participants received forms CA, CB, CC, and CD. American participants received AA, AB, AC, and AD.

n87. The storylines forming the basis of case 2 and case 4 were adapted and modified from Kaiping Peng & Eric Knowles, Culture, Education, and the Attribution of Physical Causality, 29 *Personality & Soc. Psychol. Bull.* 1272 (2003).

n88. This is only a summary of one case. See Levinson, supra note 49, for a full description of the cases.

n89. These guilt questions were designed to allow analysis of the relationship between state of mind judgments and guilt determinations, as well as to allow for analysis of the psychological processes whereby guilt determinations are made. These guilt questions also allow for an examination of the impact of extraneous information and other factors on guilt determinations, as well as a test of cultural differences on guilty verdicts. Participants answered each of the four questions, and then continued on to the dependent variable measures that all participants received. In addition to asking participants whether the defendant was guilty or not guilty, participants were asked to rate "how guilty" the defendant was (on a scale of 1–100). I call these scaled questions "guilty scale" questions. Because of procedural differences in the legal systems, Chinese participants were told to answer questions in their role as a judge, and American participants were told to answer questions in their role of a juror.

n90. The category in parentheses indicates whether the mental state referred to killing the victim or hurting the victim in order to differentiate between attempted murder and assault and battery.

n91. Joshua Dressler, *Understanding Criminal Law* 467 (2d ed. 1995).

n92. *Id.* at 503.

n93. Model Penal Code 2.02(2)(c) (1985). I tested conceptions of recklessness without the justification element, which imports a separate (and unrelated to subjective mental state) notion into the state of mind analysis.

n94. Model Penal Code 2.02(2)(a)(i) (1985).

n95. Model Penal Code 2.02(2)(b)(ii) (1985). There were two additional mental state questions that I did not highlight in the summary list of mental state questions. Questions 8 and 9 also addressed issues that can be relevant to malice aforethought judgments, particularly in jurisdictions where degrees of murder are used. Many state

jurisdictions require that first-degree murder include "willful, premeditated, deliberate" action. Dressler, *supra* note 91, at 469-70. In many contexts, willful is defined as analogous to intent, embodied in Questions 1 and 2. Premeditation asks whether the defendant thought about acting beforehand or whether the action was committed impulsively. The inquiry into the nature of "deliberate" action asks whether the actor considered the effects and consequences before acting. Question 8 tested deliberation, and Question 9 tested premeditation.

n96. The "m" stands for mean score.

n97. The "p" value refers to statistically significant levels. Psychologists generally agree that statistical significance of a test is indicated if the p value is less than .05. A p value between .05 and .07 indicates marginal significance of a test.

n98. Chinese participants did not follow the same hierarchy. Chinese responses indicated that participants considered knowledge as the lowest mental state level, below purpose and recklessness.

n99. Only Chinese extreme recklessness and deliberation judgments were not significantly correlated with each other.

n100. A "one-way" test means that only one variable was isolated in testing variance. In this instance, I compared the results across the culture variable, comparing Americans with Chinese. An ANOVA is a statistical test of analysis of variance.

n101. Chinese were more likely than Americans to convict for attempted murder for fact patterns 3 and 4.

n102. Chinese were more likely to convict for assault and battery for all fact patterns, except that results were only marginally significant for fact pattern one.

n103. Because I tested so many mens rea judgments together (more than a jury would consider at any one trial), my results do not match actual trial reasoning processes. For example, depending on the jurisdiction and charges, jurors asked about recklessness might not also be asked about intent and extreme recklessness. Therefore, processes will vary based on the "package" of inquiries in the particular jurisdiction. In addition, though I tested the role of psychological factors in mental state judgments, such judgments are not an explicit part of the legal inquiry. While these variables must be examined for their role in mental state judgments, the variables I presented in this respect also do not match a true trial.

n104. For other variables, however, such as the purpose to kill variable, state of mind variables actually served as negative predictors for Chinese. In that case, the premeditate factor served as a negative predictor of purpose to kill.

n105. These judgments asked whether or not an injured party should financially recover.

n106. Results indicating the seemingly heavy reliance by Americans, rather than Chinese, on morality of action judgments in state of mind attributions are surprising. Previous psychological research led me to predict that Chinese would generally focus more on notions of morality than Americans would.

n107. In almost all judgments, Chinese participants made higher state of mind attributions than American participants. Such mental state judgments went in the opposite direction from my prediction. One possible explanation for this trend is a stronger penal consciousness in China. Some Chinese historians have suggested that China's legal history was penal in nature. William P. Alford, *To Steal a Book is an Elegant Offense: Intellectual Property Law in Chinese Civilization* 10 (1995), citing Derk Bodde & Clarence Morris, *Law in Imperial China* (1973), which characterized Chinese law as "overwhelmingly penal in emphasis." Alford disagreed with Bodde and Morris' penal approach to Chinese law, instead emphasizing broader social principles. The type of contextual explanation offered by Bodde and Morris can help distinguish higher Chinese mental state attributions in the criminal context from lower attributions relative to Americans found by researchers in other contexts. See Levinson et al., *supra* note 4.

n108. Despite the steps I took to safeguard against language differences, I cannot entirely rule out the complexity of language or cultural-specific meanings as factors in various judgments and related processes. Yet, at least in the international law context, language gaps are real. Standards should be sought that can overcome both cultural gaps as well as language gaps.

n109. I would like to briefly mention the Chinese law implications of the results of Chinese participants. The regression results on Chinese participants' attempted murder guilty scale judgments, which indicated that Chinese mental state judgments did not predict guilt, raises some issues regarding the Chinese legal system's reliance on Western-like criminal laws in determining guilt. While the Chinese do not have laypersons as jurors, they do rely on judges' ability to link guilt determinations to mental states. If Chinese cultural and psychological norms do not underlie such imported legal notions, then their legal ideals will not be effectuated. The Chinese reliance on punishment as a predictor of guilt determinations (a marginally significant predictor) indicates that perhaps scholars' arguments that Chinese history has led to a more penal emphasis rings true. See Alford, *supra* note 107, at 10. In fact, such a contention would be consistent with other results I have reported here, indicating that Chinese were more likely than Americans to find defendants guilty and make higher mental state attributions. The results of the regression on assault and battery, unlike the results on attempted murder, tended to indicate that Chinese do in fact look to mental states when determining guilt. In addition to the predictor of punishment (which was present marginally in attempted murder judgments), the variables of intent to hurt and extreme recklessness played roles in predicting guilt determinations. These findings raise hope that the mental-state based culpability standards of Chinese law are consistent with Chinese cultural norms. Yet further research is needed on Chinese lay understandings of criminal guilt to determine whether policy reform would be best suited to psychological constructs of Chinese citizens.