DESCRIBING JURORS’ PERSONAL CONCEPTIONS OF INSANITY AND THEIR RELATIONSHIP TO CASE JUDGMENTS

Jennifer L. Skeem
University of Nevada, Las Vegas

Stephen L. Golding
University of Utah

In a series of studies, prototype theory was applied to describe the nature, variability, and effect of jurors’ conceptions of insanity. Specifically, (a) 80 jurors described the features of their prototypes of insanity, (b) 5 jurors combined similar features to develop a core set of features to measure individual differences, and (c) 135 jurors and 236 undergraduates completed measures of individual differences in prototypes and attitudes toward the insanity defense and the criminal justice system and rendered insanity case judgments. Results suggest that (a) jurors’ prototypes of insanity cannot be reduced to legal or psychiatric constructs; (b) although there are marked individual differences in prototypes, there are 3 identifiable groups of jurors with prototypes that emphasize severe mental disability, “moral insanity,” and mental state at the time of the offense; and (c) these prototypes are associated with case-relevant attitudes and affect the way in which jurors interpret case information and render verdicts. Implications for future research, legal reform, and the presentation of expert evidence are analyzed.

Legal Assumptions About Jury Decision Making

The legal system assumes that jurors are “blank slates” who objectively decide on the facts of a case and apply the law to those facts to reach a legally appropriate verdict. However, jurors are not blank slates. Research consistently indicates that laypeople have experience-based “knowledge structures” that strongly influence their case judgments. These include stereotypes of offenders (Stalans, 1993), prototypes of offenses (V. Smith, 1993), case-relevant attitudes (Moran, Cutler, & DeLisa, 1994; Roberts & Golding, 1991), and knowledge about everyday events (Bennett & Feldman, 1981; Pennington & Hastie, 1986). Judging from the size of the jury selection literature and the booming trial consultant industry, legal professionals have long known that jurors’ preconceptions and attitudes affect their legal decision making (see Adler, 1989, 1994; Gross, 1986; W. Lambert, 1994). However, explicitly acknowledging this fact would open a Pandora’s box of challenges based on defendants’ constitutional rights to an impartial jury. Thus, in Lockhart v. McCree (1986), Justice Rehnquist, speaking

Jennifer L. Skeem, Department of Psychology, University of Nevada, Las Vegas; Stephen L. Golding, Department of Psychology, University of Utah.

This work reflects part of a dissertation completed by Jennifer L. Skeem. The research received the 1999 AP-LS First Place Dissertation Award and was supported by a Graduate Research Fellowship from the University of Utah, a Dissertation Award from the American Academy of Forensic Psychology, and a Grant-in-Aid from the American Psychology-Law Association. We thank Christina Studebaker for her helpful comments on an earlier draft.

Correspondence concerning this article should be addressed to Jennifer L. Skeem, Department of Psychology, University of Nevada, 4505 Maryland Parkway, Box 455030, Las Vegas, Nevada 89154-5030. Electronic mail may be sent to jennifer.skeem@ccmail.nevada.edu.
for the majority, argued that an impartial jury is not defined by “balancing the predispositions of individual jurors” (p. 178):

Prospective jurors come from many different backgrounds, and have many different attitudes and predispositions. But the Constitution presupposes that a jury selected from a fair cross-section of the community is impartial, regardless of the mix of individual viewpoints actually represented on the jury, so long as the jurors can conscientiously and properly carry out their sworn duty to apply the law to the facts of the particular case. (p. 184)

As this quote suggests, a juror is biased when her\textsuperscript{1} state of mind in reference to any person or issue involved in a case might substantially impair her performance of her duties as juror (Adams v. Texas, 1980), such as following judicial instruction on the law (Dillehay & Sandys, 1996). The Court assumes that the routine procedural safeguards it applies sufficiently neutralize juror bias. These include conducting a special voir dire to allow the prosecution and defense to identify and excuse from service prospective jurors who may be biased, instructing jurors on their duty to apply the law objectively, and eliciting oaths that they will do so (see Dressler, 1991; Shuman, 1994; Tanford, 1990). According to the Court, represented by Justice Powell, “it is fair to assume that the method we have relied on since the beginning usually identifies bias” (Patton et al. v. Yount, 1984, p. 1038, citations omitted).

There are reasons to doubt this assumption, however. First, attorneys often do not identify biased jurors (Hastie, 1991), in part because they rely on “stereotypic rules of thumb” (MacCoun, 1989, p. 1047) to identify bias that is based on nonspecific demographic and attitudinal variables (Abbott, Hall, & Linville, 1993; Hastie, Penrod, & Pennington, 1983; Shuman, 1994). Second, even when attorneys do effectively identify and eliminate jurors who are strongly pro-defense or pro-prosecution, the resulting juries do “not differ much from one that would have been selected randomly or by accepting the first 12 names that came to the box” (Johnson & Haney, 1994, p. 498). Johnson and Haney found that, during perfunctory questioning of jurors during voir dire, a hesitant juror’s answers were often short-circuited by the judge, who insisted that she give a “formal assurance” that she would set her biases aside during the trial and render a verdict on the basis of the evidence (Huber v. State, 1996, p. 1080). At the conclusion of trial, however, fully half of jurors admitted that they “could not set aside their personal opinions and beliefs in reaching a verdict, despite their agreement to do so” (p. 502). In keeping with this fact, mock jurors’ attitudes and preconceptions have been shown to affect their verdicts even when they are instructed to lay them aside and swear to do so (English & Sales, 1997; V. Smith, 1993).

Thus, despite legal assumptions, “jurors do not so much find reality as construct it” (Finkel, 1995, p. 63). Although jurors’ application of “commonsense justice” may often result in well-reasoned, highly contextualized case judgments (Finkel, 1995, 1997), it is likely, under some circumstances, to result instead in legally incorrect or even highly prejudicial ones (English & Sales, 1997; V. Smith, 1991).

\textsuperscript{1}For ease of reading, jurors are typically referred to in this article using feminine pronouns.
Importance of Legal Assumptions to Insanity Defense Cases

Jurors’ reliance on their attitudes and preconceptions is particularly likely to be detrimental in cases where defendants raise the controversial defense of insanity. First, a substantial body of research indicates that negative attitudes toward the insanity defense are prevalent, change resistant, and highly influential on jurors’ verdicts. Although studies sometimes find support for the abstract rationale of the insanity defense, they consistently document strong negative attitudes toward the defense (Ellsworth, Bukaty, Cowan, & Thompson, 1984; Golding, 1992; Hans, 1986; Hans & Slater, 1984; Homant & Kennedy, 1987; Roberts & Golding, 1991; Steadman & Cocozza, 1978). Laypeople often express a belief that the insanity defense is a frequently abused “loophole” in the law that allows many guilty criminals to escape punishment (Golding, 1992; Hans, 1986; Pasewark, 1981; Perlin, 1994, chaps. 3 and 5). This concern is grossly inaccurate as well as inflexible. For example, although Pasewark and Seidenzahl (1979) found that laypeople believed the insanity defense was raised in approximately 37% of cases, Silver, Circione, and Steadman (1994) found that the actual rate across eight states was less than 1%, which is 41 times less than the public estimate. When provided with correct information about the limited proportion of defendants who enter insanity pleas and are acquitted by reason of insanity, approximately half of laypeople maintain their overblown misconceptions (Jeffrey & Pasewark, 1984; see also McCutcheon & McCutcheon, 1994, p. 230).

Especially troubling is the robust finding that attitudes toward the insanity defense exert considerable influence on mock jurors’ verdicts in insanity cases (Bailis, Darley, Waxman, & Robinson, 1995; Cutler, Moran, & Narby, 1992; Ellsworth et al., 1984; Homant & Kennedy, 1987; Poulson, Brondino, Brown, & Braithwaite, 1998; Roberts et al., 1987). For instance, Roberts and Golding (1991) found that jurors’ attitudes toward the insanity defense were more strongly associated with their verdicts than were manipulations of case facts and available verdict categories.

Jurors’ reliance on their own knowledge structures in insanity defense cases is also of concern because jurors abide by their own conceptions of insanity to a greater extent than they do case facts and the law. Empirical studies repeatedly demonstrate that mock jurors often do not apply judicial instruction on legal definitions of insanity in rendering verdicts (Finkel, 1989, 1991; Finkel, Shaw, Bercaw, & Koch, 1985; Ogloff, 1991; Ogloff, Schweighofer, Turnbull, & Whittemore, 1992; Simon, 1967). This suggests that they rely on their own conceptions of insanity to decide whether a defendant is insane.

For more than two centuries, the language of legal standards for insanity has been intensely debated. When a high-profile “case produced a ‘wrongful’ verdict, pressure for a new test grew” (Finkel, 1995, p. 179). For instance, after John

---

2For reviews of legal standards of insanity and their historical roots, see also Golding and Roesch (1987), Hermann (1983), and Perlin (1994, chap. 3). These standards vary in the impairments they stress (Finkel, 1995; Finkel & Handel, 1989): Some emphasize relatively gross impairment in awareness and perception (mens rea; “wild beast”), others focus on cognitive impairment (American Law Institute [ALI], 1962; Insanity Defense Reform Act [IDRA], 1984; Regina v.
Hinckley Jr. was acquitted by reason of insanity after attempting to assassinate President Ronald Reagan (U.S. v. Hinckley, 1981), public outrage ensued and Congress passed the IDRA (1984). At the time of Hinckley’s trial, the ALI standard for insanity had been the following:

A defendant is not responsible for his criminal conduct if, as a result of mental disease or defect, he “lacks substantial capacity either to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law.” (ALI, 1962, p. 74, emphasis added)

The IDRA excised the volitional prong of this standard (italicized above), thereby returning to a version of the “cognitive” standard that had been in effect for 150 years (Regina v. M’Naghten, 1843). Although proponents expected that this test would produce fewer insanity verdicts than the ALI standard, the IDRA standard did not work “as advertised” (Finkel, 1995). Using a case vignette design, Finkel (1989) found no significant verdict differences between mock jurors who were given IDRA instructions and those who were given ALI instructions or even the narrow “wild beast” test, which requires that an insane defendant be “totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, . . . a brute, or a wild beast” (Arnold’s Case, 1724, as cited in Walker, 1968, p. 56).

These results have been replicated with a variety of markedly different insanity tests that span more than 250 years of insanity defense jurisprudence in North America (for reviews, see Finkel, 1995; Ogloff et al., 1992). Thus, despite recurrent, heated debate about the language of insanity defense standards, the test of insanity ultimately selected seems to make no difference to jurors. In fact, it often makes no difference whether jurors are given any test or not. Mock jurors who receive no insanity test instructions, or who are explicitly told to use their own “best lights” to decide the case, produce verdict patterns similar to those of mock jurors who receive various insanity test instructions (Finkel, 1989; Finkel & Handel, 1988; Ogloff, 1991; Simon, 1967).

The reasons jurors do not use insanity instructions remain unclear. Although some evidence indicates that jurors have trouble recalling and understanding instructions, other research suggests that jurors interpret instructions differently in light of their own experiences. Regardless of its basis, jurors’ determinations of M’Naghten, 1843), and some stress impairment in volitional control (irresistible impulse; ALI). These standards also vary in scope (e.g., whether “knowing” or “appreciating” the nature or wrongfulness of one’s actions is required for a test emphasizing cognition).

Although definitions of insanity provided in jury instructions have little effect on verdicts, increasing jurors’ verdict options by adding a “guilty and mentally ill” category significantly affects their verdict patterns. For example, Roberts et al. (1987) found that jurors typically used the guilty and mentally ill category as an intermediate or compromise verdict between “guilty” and “not guilty by reason of insanity.”

Ogloff and his colleagues (1992) summarize three studies that suggest that mock jurors often have difficulty in remembering or comprehending insanity test instructions: On tests asking them to recall, recognize, or interpret specific facets of insanity test instructions they had been exposed to, individuals responded correctly only 30-50% of the time. However, Robinson and Darley (1995) found that mock jurors’ verdicts based on commonsense translations of various insanity tests were highly correlated with their verdicts based on the original legal wording of the tests. This suggests
insanity without guidance suggests that they rely on their own conceptions of insanity. “For if jurors are setting the legal test aside, then they must be falling back on their commonsense notions of insanity. And if they reconstrue the test, their commonsense notions must be giving their reconstructions shape and form” (Finkel, 1995, p. 286).

An additional line of research also suggests that jurors rely on their own conceptions of insanity in deciding cases and that these conceptions are associated with their attitudes about insanity. Jurors often draw different inferences about defendants’ cognitive and volitional impairments on the basis of identical case descriptions (Bailis et al., 1995; Poulson et al., 1998; Roberts et al., 1987; Roberts, Sargent, & Chan, 1993; Simon, 1967). For instance, Roberts and Golding (1991) presented mock jurors with case vignettes in which available verdict categories and the defendant’s mental state at the time of the offense were manipulated, and then they measured jurors’ construal of case information (e.g., perception of the extent to which the defendant was capable of acting differently). They found that the ways in which jurors construed the case were associated with their attitudes toward the insanity defense and were the strongest predictors of verdict choice. In fact, case construal explained substantially more variance in verdicts than the case as “objectively given”:

When defendants were perceived as being more disordered, as having less knowledge that their victim was a person, less appreciation of the wrongfulness of their conduct, and less capacity for ... reasoning logically in their situation and understanding reasonable alternative conduct, then subjects strongly “voted” in favor of an insanity verdict. (Golding, 1992, p. 9)

Using a different case vignette methodology, Finkel and Handel (1989) also found that mock jurors construed cases in complex, discriminating ways that were consistent with their verdict choices. Similarly, Simon’s (1967) qualitative analyses of mock jury deliberations suggest that jurors construed identical case facts differently. In one vignette, a defendant was caught “hiding” in a house he had burglarized by crouching in the middle of a room with a newspaper over his head. Mock jurors who thought this defendant was insane viewed these actions as irrational or “crazy,” whereas jurors who thought the defendant was guilty believed his behavior was typical of a clever criminal. Again, jurors’ perception and interpretation of the case facts seemed driven by their knowledge structures.

that individuals understood the differences among the tests and consistently applied their interpretations of the tests’ meanings, regardless of how they were worded. In a similar vein, mock jurors in Bailis and associates’ (1995) study were able to arrive at legally appropriate verdicts when provided with highly artificial case summaries in which only conclusory information directly matching the insanity test instructions were given. Thus, mock jurors were able to understand and apply test instructions under conditions that left no room for interpretation. In addition, Simon (1967; see also James, 1969) noted that several mock jurors in her experiment recalled and discussed insanity test criteria during deliberations but appeared to construe the criteria differently (i.e., a juror who believed the defendant was guilty construed a key M’Naghten phrase, “to know” more narrowly than a juror who believed the defendant was insane). Taken together, these findings suggest that jurors might perform poorly on traditional tests of recall or comprehension for insanity test instructions partially because they interpret the instructions.

For example, a juror who believed the defendant was insane argued as follows:
In summary, substantial evidence suggests that jurors' case-relevant attitudes and preconceptions affect their judgments in insanity defense cases. Negative attitudes toward the insanity defense are prevalent and strongly predict insanity case judgments. Moreover, jurors do not apply legal definitions of insanity in rendering verdicts, but instead rely on their own conceptions of insanity to interpret case information and decide whether a defendant is sane or insane. Although little is known about these conceptions, preliminary evidence suggests that they are associated with attitudes toward the insanity defense. Any adverse influence of these knowledge structures on jurors' judgments may often go undetected, based on limitations in current knowledge and in legal procedures for identifying and eliminating juror bias. These points have critical implications, considering that a defendant does not obtain a fair trial if some of the jurors impaneled are unwilling to entertain his established legal defense of insanity (Cutler et al., 1992).

The series of studies presented below initiated a program of research designed to advance understanding of how jurors determine whether a defendant is insane and to provide methods for identifying and reducing juror bias. The chief purposes of these studies were to determine the nature and variability of jurors' conceptions of insanity, assess their relationship to case-relevant attitudes, and explore their relationship to case judgments.

Intuitive Conceptions of Insanity Guide Verdicts, But What Are They and How Do They Work?

Although several scholars have argued that jurors render insanity case verdicts on the basis of their commonsense notions or implicit theories of insanity (Bailis et al., 1995; Finkel & Handel, 1989; Roberts et al., 1987), this hypothesis has not yet been directly tested. As an adjunct issue to their central focus, several researchers have attempted to discern the nature of jurors' conceptions of insanity and the extent to which they reflect the impairments stressed in various legal tests. These studies have produced conflicting results. Some evidence suggests that jurors have a "wild beast" notion of insanity, such that the defendant "doesn't know what he is doing" (Hans & Slater, 1984, p. 107) or is "furiously insane" (Roberts et al., 1987, p. 24). Other results suggest that jurors' representations of

[the] defendant was hiding in such a childish way, in a corner holding something over his face like an ostrich. His failure to resist arrest by fighting or running away was not the behavior of the normal criminal, who would have been aware of his situation and the consequences of being caught. (Simon & Aaronson, 1988, p. 124)

Conversely, a juror who believed the defendant was guilty argued that the defendant's sneaky burglary of the home at night was typical of the "ordinary burglar," and that later, when confronted by the police, the defendant acted like a normal criminal. Hiding, cowering, playing dumb when you know you're caught is what they all do. In addition, the fact that he was hiding indicated shame, and if you're ashamed, it means that you are aware that you have done wrong. (Simon & Aaronson, 1988, p. 125)

For ease of reading, defendants are referred to in this article using masculine pronouns, because male individuals are disproportionately involved in the criminal justice system and most jurors in this study described male prototypes of insanity.
insanity extend more broadly to defendants with less severe cognitive and volitional impairments (Bailis et al., 1995; Robinson & Darley, 1995). Still other results suggest that all of these constructs, impairment in awareness, cognition, and volition come into play depending on the case given but that no single construct is determinative across cases or describes the essence of insanity (Finkel & Handel, 1989).

These conflicting results may partially be based on methodological limitations. First, these studies rarely assess individual differences in conceptions of insanity, which may produce unstable and less meaningful aggregate results (Finkel, 1997). Roberts et al. (1987) found that individual differences in “social-moral cognition” were critical in determining the extent to which jurors were willing to find “not guilty by reason of insanity” any defendant who was not obviously insane. Second, in virtually all of these studies, investigators attempted to infer the nature of jurors’ conceptions of insanity on the basis of jurors’ judgments about insanity case vignettes (Bailis et al., 1995; Finkel & Handel, 1989; Roberts et al., 1987; Robinson & Darley, 1995; cf. Hans & Slater, 1984). These inferences typically were based on the independent variables in the vignette that predicted jurors’ verdicts. Because the number of variables that can be manipulated in these vignettes is limited, investigators must choose which variables to manipulate. Thus, the results of these studies arguably reflect the investigators’ insight about a few important factors in jurors’ decision making more than they capture the essence of jurors’ conceptions per se. In addition, because jurors’ judgments may be bound to the case vignettes used to elicit them, it may be difficult to expose jurors to a broad enough stimulus domain to detect key dimensions of their conceptions.

The closest approximation to a direct study of jurors’ conceptions of insanity was conducted by Finkel and Groscup (1997), who explored undergraduate students’ insanity case stories. The authors asked students to create typical and atypical case narratives about defendants who successfully or unsuccessfully plead insanity in a jury trial. They found that students often described a young, male defendant with a psychiatric history who committed a crime against an unknown male victim on the basis of either grandiose delusions (successful plea) or revenge (unsuccessful plea). Notably, there were no differences between students’ “typical” and “atypical” case stories. Both story types tended to be

---

7 Hans and Slater (1984) applied a nonvignette methodology to investigate lay definitions of insanity. However, they studied laypeoples’ beliefs about the legal definition of insanity shortly after John Hinckley’s trial. When respondents have been recently inundated with media presentations about a high-profile case, their beliefs about the legal definition of insanity may differ substantially from their own, relatively stable intuitive conceptions of insanity.

8 Finkel and Handel (1989) used a slightly different vignette methodology in which inferences about jurors’ conceptions of insanity were based on the reasons jurors gave for their judgments about vignette cases. However, if jurors’ explanations are bound to the vignettes used to elicit them, these conceptions are not adequately represented.

9 The lack of significant differences across 30 case variables between undergraduate’s typical and atypical case stories indicates that Finkel and Groscup (1997) are incorrect in asserting that these stories are prototypes. Research consistently demonstrates that prototypes manifest themselves in typicality effects: People perceive some members of a category as more typical members than others (MacLaury, 1991; Way, 1997). If these stories were prototypes, there should have been differences.
extraordinary and to reflect "obvious news media, TV, and Hollywood influences" (p. 216). These "ghastly," "macabre" results may be attributable to study methodology. Students were asked to "use their imagination" to create insanity case stories for a jury. In doing so, they may have accessed and embellished recent media stories to which they had been exposed. These students were not asked to access, and arguably did not describe, their personal conceptions of insanity.

Thus, despite abundant evidence that jurors' intuitive conceptions of insanity affect their case judgments, the nature of these conceptions and the process by which they affect verdicts are unknown. What determines how individuals construe, for instance, the degree of control a defendant had over his criminal actions? How do these inferences affect ultimate verdicts? An established theory of cognitive categorization and its recent application to general legal decision making provide promising leads for addressing these issues.

Applying Prototype Theory to Illuminate Conceptions of Insanity

The prototype theory of categorization was first formally proposed by Eleanor Rosch (1975; Rosch & Mervis, 1975) and has since been extended through recent empirical observations (see Hampton, 1993; MacLaury, 1991; Schneider, 1991; E. Smith & Medin, 1981). According to prototype theory, knowledge about any category is structured around and represented in memory by a prototype, or quintessential member. This prototype is defined by a set of abstract features commonly associated with members of a category that capture the category's meaning (Cantor, Mischel, & Schwartz, 1982). Category membership is based on a similarity matching process; as the number of features that the object shares with the category's prototype increases, so does the likelihood that the object is deemed a member of the category. Because some objects in the category share more critical features with the prototype and are thus more "typical" of the category than others, the category is internally graded rather than uniform and discrete.10 Prototype theory has been supported by empirical evidence that demonstrates that people naturally represent categories of concrete objects (e.g., animals, vehicles) and abstract concepts (e.g., social situations, art) with prototypes (for reviews, see Hampton, 1993; MacLaury, 1991; Rosch, 1977; E. Smith & Medin, 1981).

Vicki Smith (1991, 1993; V. Smith & Studebaker, 1996) demonstrated that people also represent crime categories like "burglary" with prototypes. Smith conceptualized selecting a verdict as a prototype-relevant categorization task; when a juror is asked to decide whether a defendant is guilty of a certain crime, she must decide whether "the defendant's actions qualify as a member of the crime category charged" (V. Smith, 1991, p. 858). She found that mock jurors had

---

10 Prototype features are associated to various degrees with the category and are not singly necessary for category membership. Thus, prototype theory differs from the classical model of categorization that is embraced by the legal system. According to the classical model, category membership is based on the presence of singly necessary and jointly sufficient features. An object must possess every feature of the category: If a single feature is missing, the object is rejected as a category member.
naïve conceptions of crime categories that differed from legal definitions, \textsuperscript{11} manifested “typicality effects” characteristic of prototypes, and were more determinative of their verdicts than judicial instructions. Even though an entire set of case descriptions should have produced guilty verdicts on the basis of the legal definition given for the crime, mock jurors were substantially less likely to judge defendants guilty of a crime as the number of features in a case description shared with their crime prototype decreased. Thus, jurors judged whether a defendant was guilty by determining the degree of similarity between a case description and their crime prototype, rather than by assessing whether the necessary and sufficient features of the crime, as legally defined, were present.

Vicki Smith’s primary findings have important implications for jurors’ decision making in insanity defense cases (Bailis et al., 1995; Finkel, 1995). \textsuperscript{12} Determining whether a defendant is guilty of a particular crime is similar to deciding whether a defendant was insane at the time of an offense; both are categorization tasks well suited for the natural process of prototype matching. Just as jurors represent verdict categories in general criminal cases with crime prototypes, so too may jurors represent verdict categories in insanity cases with prototypes of insanity. Jurors may rely on their prototypes of insanity to construe the facts of the case and render a verdict on the basis of a prototype similarity matching process. A juror may make attributions about a defendant’s cognitive and volitional impairments by comparing the defendant’s characteristics to those of her prototype of the criminally insane defendant. The more closely the defendant’s attributes match those of her prototype, the more likely she is to judge that defendant a member of the category “insane.”

The hypotheses that jurors have prototypes of the criminally insane that organize the piecemeal information that they informally encounter about insanity and that these prototypes guide their legal decision making is consistent with several empirical findings. First, people represent a wide range of insanity-relevant categories with prototypes, including people with psychopathology (e.g., schizophrenia, bipolar; Cantor, Smith, French, & Mezzich, 1980; Genero & Cantor, 1987), identifiable social groups (e.g., the elderly, homosexual people; Brewer, Dull, & Lui, 1981; Cantor et al., 1982; Lord, Lepper, & Mackie, 1984; Rothbart & Lewis, 1988), and personality types and traits (e.g., introverts, shyness; Buss & Craik, 1983; Cantor & Mischel, 1979b; see also Anderson & Sedikides, 1991). In fact, one study directly suggests that laypersons have pro-

\textsuperscript{11} For example, individuals conceived of “burglary” as a defendant breaking into a dwelling to steal something valuable. However, burglary was defined more broadly by statute as entering a building without authority with the intent to commit a felony. The legal criteria for a burglary did not require that a residence, a forced entry, or a theft be involved.

\textsuperscript{12} Although Vicki Smith’s studies have been criticized, they provided a fruitful foundation for demonstrating the importance of jurors’ intuitive notions about the law. The high degree of experimental control attained in Smith’s studies may have come at the expense of “real-world fidelity” (Finkel, 1997, p. 468). These studies are criticized primarily for (a) their focus on consensus prototypes rather than the more likely array of individual differences in prototypes (Finkel, 1997), and (b) the unrealistic nature of the written vignettes used to test jurors’ degree of reliance on prototypes (e.g., English & Sales, 1997).
totypes of the “criminal madman” (Cantor et al., 1982). Second, even where the law defines black-and-white categories (e.g., guilty, not guilty, not guilty by reason of insanity), jurors’ see shades of gray when rendering insanity verdicts (Finkel, 1995). Mock jurors often construe cases across various responsibility dimensions as neither clearly sane nor insane and, when available, use unclear categories (guilty but mentally ill) and intermediate categories (diminished responsibility) as “compromise” verdicts for these cases (Finkel & Duff, 1989; Roberts & Golding, 1991; Roberts et al., 1993). These results are consistent with the prototype approach, which specifies that category members vary in the number of critical features they share with the prototype. Thus, category members range from very typical or clear cases (i.e., insane or guilty) to unclear, atypical cases (i.e., guilty but mentally ill, diminished responsibility).

Third, because prototype features are correlated with, but not necessary for, category membership, there may be considerable heterogeneity among category members such that “equivalently clear cases . . . [are] characterized by different subsets of the features” (Genero & Cantor, 1987, p. 60). Thus, Finkel and Handel’s (1989) finding that the constructs revealed in jurors’ explanations for their verdicts shifted from case to case may partially reflect the fact that each case was characterized by different features of an insanity prototype. For instance, when a lack of control over impulses and a lack of evil intent were salient features in a case in which the insane defendant was epileptic, a “paranoid schizophrenic” was deemed insane on the basis of distorted thinking and incapacity to make responsible choices.

Assessing Individual Differences in Prototypes: Does One Size Fit All?

Most prototype research focuses on a “consensus prototype,” or composite prototype composed of the features that are most frequently listed across individuals. Similarly, most research on jury decision making focuses on aggregate results. Unlike past studies, our research focuses explicitly on assessing individual differences in personal conceptions of insanity and their relationship to verdict selection. This focus is based on both conceptual and pragmatic concerns. First, because “categorization results from a learning process” (Taylor, 1981, p. 87), individuals with different life experiences are likely to develop substantially different knowledge structures. In fact, a substantial body of evidence indicates that individuals differ in prototypes and stereotypes on the basis of differences in their life experiences, cultures, and attitudes (Eagly & Mladinic, 1989; Kempton, 1981; A. Lambert & Wyer, 1990; Lord et al., 1984; Stangor, Sullivan, & Ford, 1991; see also Ashmore & DelBoca, 1981, p. 19; MacLaury, 1991, pp. 59–60).

---

13Unfortunately, however, this topic was not the focus of the study, and details about the prototype are unavailable (N. E. Cantor, personal communication, December 12, 1996).
14Finkel and Grosкуп (1997) attempted to assess individual differences by defining single or multiple case stories based on any significant differences detected in their independent variables. This approach, however, artificially limited both the number and nature of stories that could emerge: Only two insanity stories could have emerged, based on between-subjects differences (i.e., a “successful” and an “unsuccessful” story). There was wide variability in the type of crime and crime precipitants that individuals produced, suggesting that important individual differences were overlooked.
For example, when asked to identify their prototype of a "boot," a Londoner may identify an army boot whereas a Texan identifies a cowboy boot. These prototype differences would guide different decisions about what shoes do and do not classify as boots (Kempton, 1981). These findings are likely to extend to prototypes of insanity. Prior research suggests that there are important, often attitude-related differences in how jurors interpret insanity cases (e.g., Finkel & Groscup, 1997; Finkel & Handel, 1989; Roberts et al., 1987). These differences may be associated with differences in prototypes of insanity.

Individual differences in conceptions of insanity should be investigated for pragmatic reasons as well. Although aggregate findings are helpful in quantifying the nature and extent of biases across jurors as a group, they do not aid in differentiating prospective jurors with prejudicial, caricatured, or incorrect prototypes from those with relatively sophisticated prototypes that may be in accord with the law (Finkel, 1997). Thus, our research was designed to develop a measure to characterize individual prototype differences that may be used to make such differentiations.

Summary and Purpose

Despite legal assumptions and safeguards, jurors rely on their knowledge and experiences to actively interpret case information and render judgments. Given the controversial nature of the insanity defense, this reliance may particularly jeopardize a defendant's rights in insanity defense cases. Abundant evidence suggests that jurors have and rely on their own, intuitive conceptions of insanity to determine whether a defendant is sane or insane. However, these conceptions of insanity and the process by which they affect verdicts are poorly defined.

This research applies prototype theory and methodology to address these issues. We have presented hypotheses (a) that jurors represent criminal insanity with prototypes that guide their case judgments and (b) that there are critical individual differences in prototypes of insanity. This research begins to test these hypotheses but focuses explicitly on describing the nature and variability of laypeople's conceptions of insanity and exploring their relationship to case-relevant attitudes and case judgments. Future research can extend these studies by testing whether jurors render verdicts in insanity defense cases using a prototype matching process and determining the extent to which reliance on biased prototypes can be reduced (see V. Smith, 1991, 1993; cf. English & Sales, 1997).

After presenting the design of the research developed to address these goals, we describe the four studies that comprise the research. We conclude with a general discussion of the implications of these studies for professional practice and legal reform.

Research Design

We present three interconnected studies that comprise the original research and a fourth study that attempts to replicate its results. The first three studies modify traditional prototype methodology to measure individual differences in conceptions of insanity and assess their relationship to case judgments. In the first study, we elicited the characteristics or features of jurors' conceptions of insanity. In the second study, we condensed this large group of features and developed it
into a measure of individual differences in conceptions of insanity. In the third study, we administered this measure along with measures of attitudes and an insanity case vignette to a sample of jurors to identify individual differences in prototypes and assess their relationship to attitudes and case judgments. Participants in the first three studies ("jurors") were former venirepersons, or members of the jury pool. In the fourth study, we attempted to replicate the results of the third study with an undergraduate sample.

The studies described below are presented in a comprehensive manner appropriate to a social science audience. For readers who do not wish to wade through methodological and statistical details, we present a synopsis of the method, findings, and implications of each study at the end of each section.

Study 1: Who Is Insane? Eliciting the Features of Jurors’ Conceptions

**Method**

**Juror Sample and Procedure**

Participants in this study were 81 former venirepersons (jurors) who were called to appear for one of nine randomly selected criminal and civil cases of the Third District Court, which represents approximately 40% of Utah’s population (Utah Population Estimates Committee, 1998). Almost all participants were White (99%) and approximately half were women (54%). Participants’ average age was 45 years (SD = 14.25), and their average educational level was just below a bachelor’s degree (M = 15 years, SD = 2.54). Only 21% of study participants actually served as jurors on the index case randomly selected for study inclusion.16

Prospective participants were invited to take part in the study either in court on their first day of court service or by telephone or postcard 2–4 months following their service. Jurors who agreed to take part in the study were mailed the study materials and, if necessary, contacted by telephone 2 and 4 weeks later and asked to return their responses.

Study participants were similar to venirepersons who did not complete the study across a range of characteristics. Of the 228 venirepersons called for selected cases and invited to take part in the study, 81 returned the study measures, for a rate of completed participation of 36%. Study participants did not differ from nonparticipants with respect to gender, χ²(1, N = 229) = 0.84, p = .41; age, r(210) = −0.68, p = .50; or selection as jurors, χ²(1, N = 232) = 2.36, p = .14. Because nonparticipants’ race and educational level were not available, they were estimated from county census statistics (Census of Population and Housing, 1990; Utah Department of Employment Security, 1998), which probably overestimate the proportion of racial minorities found in jury pools and underestimate the educational level (see Abbott et al., 1993; Bueker, 1997). This stringent test of the sample’s representativeness indicates that study participants attained higher levels of education than census estimates, χ²(4, N = 160) = 21.69, p < .001, but did not differ from census estimates in race and ethnicity, χ²(4, N = 162) = 9.02, p < .10.

---

15Approximately 85% of Third District Court cases are criminal cases; the remaining 15% address civil issues (Jane Kirk, jury administrator, personal communication, August 20, 1998).

16Because Utah is one of the few states that have essentially abolished the insanity defense, it is unlikely that jurors served on a case that involved the insanity defense and affected their conception of insanity.
Operationalizing Prototypes of Insanity

Defining the nature and number of prototypes. As noted above, most investigators have attempted to infer the nature of jurors' conceptions of insanity on the basis of their judgments about insanity case vignettes that differ across a necessarily limited set of independent variables. Because of the limitations of this approach (see the section Intuitive Conceptions of Insanity Guide Verdicts, But What Are They and How Do They Work?) and its questionable compatibility with prototype theory, we applied a different method in this study.

Since Rosch’s (1975; Rosch & Mervis, 1975) formulation of prototype theory, prototypes have been studied extensively as sets of abstract features associated with members of a category that capture the category’s meaning (Cantor et al., 1982; Reed, 1972; E. Smith & Medin, 1981). For several reasons, we investigated prototypes of insanity as traditional, abstract feature sets that are operationally defined as lists of features that individuals generate when asked to describe the typical member of a category (Cantor et al., 1982; Hampton, 1981; Rosch, 1978; V. Smith, 1991). This operational definition is based on two prototype premises: (a) knowledge about categories is based on one’s perception of the natural co-occurrence of their attributes, and (b) to represent knowledge most economically, one emphasizes the attributes that are most distinctive to each category (Rosch, 1977, 1978).

Applying Finkel’s (1997) typology, prototypes of insanity are arguably prototypes of people and human nature because insanity defense cases pivot on the mental state of a defendant. In this research, prototypes of insanity were operationalized as contextualized prototypes of a person, or a “person in a situation” (e.g., an insane person before, during, and after committing an offense; Cantor et al., 1982). On the basis of past theory and research, we chose to study only one prototype of insanity per juror. Given that subtypes develop as one becomes more familiar and experienced with a particular social group (see Cantor & Mischel, 1979b; Taylor, 1981), the modal layperson is unlikely to have highly differentiated subtypes of criminal insanity. Although laypeople have been shown to have subtypes of familiar, “everyday” groups like the elderly (Brewer et al., 1981), they typically have little experience with the mentally ill (Daniel Yankovich Group, 1990, as cited in Wahl, 1995), and even less with the “criminally insane.” Thus, laypeople probably represent the criminally insane at a relatively broad level.

Eliciting prototypes. The features of jurors’ prototypes of insanity, as defined above, were elicited using a structured instrument derived from that of Cantor et al. (1982) and refined on the basis of a pilot study. The instrument exemplifies traditional prototype methodology. First, the instrument asks jurors to spend a few minutes forming a complete,
detailed, and vivid mental image or representation of the typical person who is not responsible for his criminal actions because of mental illness. This exercise is designed to activate and make prototype-relevant information more accessible (MacRae, Stangor, & Milne, 1994). Jurors are then asked to candidly describe the characteristics that are common to their conception of the typical insane person. To aid them in this task, we provided rough ideas about the sort of components their images might include (e.g., the persons' behavior, beliefs, feelings, attributes) and examples of responses for unrelated prototypes, including a bird and a person in a situation (i.e., the typical extrovert at a party, based on Cantor & Mischel, 1977; Cantor et al., 1982).

Results

To determine the general quality and nature of jurors' whole, unsegmented responses, we analyzed the data inductively to identify recurrent patterns and themes, using Miles and Huberman's (1994; see also Huberman & Miles, 1994; Patton, 1990) matrix methodology. The key results of this analysis are presented in this section.

Response Quality and Nature

In general, jurors' responses were rich, thoughtful feature lists or narratives that were free of bizarre, dramatic features evoked by the experimental context of a past study (Finkel & Groscup, 1997). Each juror listed an average of 7 (SD = 4) independent prototype characteristics. Only 5% of responses referenced sensational cases presented in the media, and these cases were typically identified as noncategory exemplars, or individuals that would not qualify as insane based on the juror's conception of insanity (e.g., "Ted Bundy knew exactly what he was doing").

Jurors' insanity-relevant attitudes were sometimes activated along with their prototypes of insanity, in keeping with prior findings that people's prototypes of social groups are associated with their attitudes about those groups (Eagly & Mladinic, 1989; Hilton & von Hippel, 1996; A. Lambert & Wyer, 1990; Stangor et al., 1991). While describing their prototypes, 20% of jurors offered unsolicited opinions on the insanity defense, mental illness, or the justice system (e.g., opinions that the insane should be kept in custody). Moreover, 7% of jurors described no prototype of insanity based on their "strict liability" orientation or strong conviction that everyone is responsible for their actions, regardless of their mental condition (see Roberts & Golding, 1991). Thus, prototypes of insanity appear to be embedded in a web of mental constructs that include case-relevant attitudes (see Way, 1997).

---

19This highlights the importance of asking jurors to describe their own conceptions of defendants who are not responsible for their criminal actions because of mental illness. When Steadman and Cocozza (1978) asked laypeople to "name a criminally insane person that they had read or heard about," respondents most often listed local (Robert Garrow) and national (Charles Manson) murderers who had received heavy media coverage but who had not pled insanity successfully.
Juror Prototypes: Beyond Legal Tests of Insanity

An analysis of the themes that organized jurors’ responses indicated that their prototypes of insanity were multifaceted and could not be reduced to legal formulations or even to single, abstract themes related to mental state at the time of the offense (e.g., an illogical, incomprehensible, delusion-based crime). The modal response reflected a combination of two to three mental state themes that were enriched by a unique description of the prototype’s human characteristics.

In general, jurors were unimpressed by historically important distinctions among the types and extent of mental state impairment required by particular legal definitions of insanity. They sometimes combined mental state themes that have fueled bitter legal debates over insanity defense standards, and they often interpreted these standards more broadly or narrowly than intended by legal definitions. For example, several jurors combined the narrowly defined “wild beast” test with that of the more broadly written M’Naghten standard (e.g., a “disheveled, wild- or blank-eyed person with a history of uncontrollable, erratic, violent moods and behavior who can’t distinguish between right and wrong”).

That jurors’ conceptions of insanity often plainly contradict legal definitions of insanity is understandable. Lay sources of knowledge about mental illness and insanity overlap very little with those of psycho-legal experts (Hans, 1990; Nunnally, 1957; Schoeneman, Segerstrom, Griffin, & Fresham, 1993; Wahl, 1995). Most laypeople are unfamiliar with expert definitions of these constructs and define them differently than experts do (Chung, Chen, Lam, Chen, & Chan, 1997; Furnham & Rees, 1988; Hans & Slater, 1984; Wahl, 1995). The contours and specific nature of these lay definitions of insanity are systematically explored in the studies that follow.

Synopsis of Study 1

In this first study, traditional prototype methodology was used to ask jurors to bring to mind and to describe candidly the typical person who is not responsible for his criminal actions because of mental illness. Jurors’ responses were typically thoughtful, nonsensational descriptions of multifaceted prototypes of insanity. These prototypes often fluidly combined mental state themes that have been the subject of strident legal debate. The modal response was characterized by multiple mental state themes and a unique collection of personality and psychiatric attributes. These responses were used in the second study to develop a measure of individual differences in insanity prototypes.

Study 2: Reducing the Feature Set to Develop a Measure of Individual Differences

Method

We adapted traditional prototype methodology (exemplified in Study 1) to measure variability in jurors’ conceptions of insanity, based in part on methods used in prior studies of prototypes or stereotypes (Brewer et al., 1981; Cantor & Mischel, 1977, 1979b; Katz & Braly, 1933; Kurcz, Polkowska, & Potocka-Hoser, 1990; Lord et al., 1984; Stangor et al., 1991; Stephan et al., 1993). Our goal in Study 2 was to reduce the large number of prototype features generated in the first study in order to develop a measure of individual
differences in insanity prototypes. A moderate degree of data reduction was needed to retain enough features to represent adequately individual differences without causing data analytic problems and subject fatigue.

**Overview of Procedure**

The data were reduced by combining highly similar features. To preserve the lay meaning of the features, we assigned a small number of jurors with diverse backgrounds rather than one or two experimenters the task of combining features. To aid jurors in this process, experimenters first placed the features in manageable order. The juror- and experimenter-based feature reduction process consisted of three major steps, as shown in Figure 1. First, experimenters segmented the responses from Study 1 into individual features, wrote the features on cards, and organized them (see below). Second, a small sample of jurors used their judgment to sort the features into piles of highly similar characteristics in order to reduce the feature set. Third, experimenters assigned labels to jurors' reduced set of features to capture their essence. These feature labels became the items of a measure of individual differences in which participants were asked to indicate the extent to which each feature was important in defining their personal conception of insanity.

**Step 1: Experimenters' Preparation of the Feature Set**

Three pairs of research assistants extracted usable information from each juror's response, segmented this information into thought units that represented independent prototype features (based on Gottman, 1979; Penman, 1980; Rosenberg & Sedlak, 1972), and wrote these features on cards to permit sorting. The average rate of interrater agreement was 92% (SD = 13.78) for content extraction and 89% (SD = 13.07) for segmentation into independent features. All rating disagreements were resolved by consultation between the primary investigators.

Research assistants extracted 549 prototype features from jurors' responses in Study 1. Asking jurors to sort this many features would likely induce confusion and fatigue.

![Figure 1](image-url)  
*Figure 1.* Design for reducing the feature set to develop a measure of individual differences.
Thus, two research assistants independently organized the features into 10 broad categories that were developed based on past stereotype research (e.g., Niemann, Jennings, Rozelle, Baxter, & Sullivan, 1994) and qualitative analyses of Study 1 data. These categories, listed in descending order of the frequency with which they captured jurors' prototype features, were as follows:

1. Mental State at the Time of the Offense (e.g., has no concept of right and wrong; acts in an illogical way; childlike mind; no conception of the consequences of his actions; out of control; not cognizant of his actions; not just intoxicated; detached from surroundings);
2. Specific Symptomatology (e.g., bizarre beliefs; hears voices; acts out; prone to rage; confused; self-abusive);
3. Personality Characteristics (e.g., feels justified in his actions; demanding; loner; backward nature; extrovert);
4. Level of Functioning, Interaction with the Mental Health Care System, and Treatability (e.g., cannot function normally in society; clinically diagnosed by a professional; on medication; uncontrollable mental imbalance);
5. Physical Appearance (e.g., looks normal; disheveled; blank stare);
6. General Mental Illness (e.g., psychotic; bipolar; depressed; long-term mental illness);
7. “Biological” Impairments (e.g., experienced head trauma; has a chemical imbalance; mentally retarded);
8. History of Abuse or Trauma (e.g., severely abused for years; experienced severe psychological trauma);
9. Demographic Characteristics (e.g., uneducated; can’t hold a job); and
10. Other (e.g., no direction in life).

Using Cichetti and Sparrow’s (1981) descriptive classifications, research assistants’ chance-corrected rate of agreement for classifying features into these 10 categories was “excellent” ($K = 0.86$). All disagreements were resolved by Jennifer L. Skeem.

After experimenters had segmented and classified the features that were extracted from jurors’ Study 1 responses, all identical and synonymous features (e.g., has hallucinations and hallucinates) were identified and combined. This process eliminated 51 features, decreasing the feature set to 498 features.

**Step 2: Jurors' Sorting and Reduction of the Feature Set**

After experimenters segmented jurors’ whole responses into features, organized these features into 10 broad categories, and combined identical terms, the 498 features were provided to a new sample of jurors to sort and condense on the basis of perceived similarity among features.

**Juror sample.** Participants were five former venirepersons who were called to appear at the Third District Court for one of three randomly selected cases that were settled immediately without any hearings. We chose to use five jurors to combine features chiefly because this would satisfy the primary goal of the feature reduction process, that is, to retain the lay meaning of the features. We wished to use a diverse sample of several laypeople rather than rely on a few experimenters. Other considerations in selecting the sample size were methodological tradition in prototype research (e.g., Cantor & Mischel, 1979b; Niedenthal & Cantor, 1986) and concerns about feasibility (the possible number of feature combinations increases exponentially with the addition of each juror, which complicates the computation of interjuror agreement).

Three participants were male and two were female. Four participants were White and one was Hispanic. Participants’ average age was 44 years ($SD = 2.7$, range $= 22–68$) and
average educational level was 14 years \((SD = 2.7, \text{ range } = 12-19)\). Participants' vocations were construction worker, homemaker, counselor, teacher, and college student.

The rate of participation in this study was 27%, given the number of venirepersons that were randomly selected, contacted by telephone, and invited to take part in the study. Because of the small sample size, we did not statistically compare study participants and nonparticipants.

**Procedure.** Former venirepersons were invited to take part in the study by telephone 2–3 months after completing their service for the court. They were asked to come to a university to complete the study and were paid $20 for their participation.

Participating jurors were instructed to use their judgment to sort the characteristics written on cards into as many categories as necessary of features that meant "essentially the same thing" to them. To concretize these instructions, jurors were provided with examples of features that people might regard as clearly synonymous, clearly distinct, and “borderline.”

When they appeared to understand the task, they were provided with sets of cards, one category at a time. Each set of cards had been shuffled to achieve randomization and avoid order effects. When jurors completed sorting set of cards, they were asked to review their piles of cards to insure that the features they had combined meant “the same thing” to them. In addition, when jurors finished sorting all 10 categories of cards, they were asked to review their sort of the entire group of cards and combine any characteristics across categories that meant the same thing to them. This step was intended to avoid artificially separating characteristics that jurors perceived as similar.

**Juror agreement and criterion for feature combination.** Prototype features were combined when at least three of the five judges (60%) classified them together. Given the diverse nature of this sample, this was a conservative agreement criterion. Agreement was computed by checking each pair of characteristics that each juror combined with the characteristics that the other jurors combined. This procedure resulted in 4,424 possible pairs of features across all jurors. Three or more jurors agreed that 1,091 (25%) of these feature pairs meant essentially the same thing.

**Step 3: Experimenters’ Assignment of Labels to the Reduced Feature Set**

Experimenters developed jurors’ feature combinations into a measure of individual differences in prototypes of insanity. First, the groups of features that jurors agreed were the same were combined. This process yielded 76 feature groups, most of which did not overlap with other feature groups and were tightly knit (e.g., had multiple internal links among feature group members). Second, all idiosyncratic feature groups (represented by 2 or fewer features) were eliminated. Of the remaining features, an average of six jurors \((SD = 4.05)\) from Study 1 contributed to each. Third and most important, labels were assigned to the remaining 59 feature groups. These feature labels became the items of the measure of individual differences in insanity prototypes.

Feature labels were designed to represent the essence or meaning of the feature group, based on consideration of (a) the linkages among features in each feature group, (b) the language used most often by jurors balanced by a need to avoid jargon, and (c) the wish to weigh each juror’s contribution to each feature equally. An example of the label assignment process is depicted in Figure 2. The body of the table lists the features that
The results of the feature reduction process used in Study 2 suggested that, as hypothesized, there were significant individual differences in jurors' conceptions of insanity. Here we present data on these individual differences and aggregate level findings about the nature of commonly listed prototype features.

**The Extent of Individual Differences in Prototype Descriptions**

Cantor and her associates (1982) proposed that the number of participants who contribute to each feature may be considered an estimate of "the degree of consensuality in prototype descriptions" (p. 50). Many (34%) of the characteristics that participants used to describe their prototypes of insanity were classified as idiosyncratic. Of the remaining characteristics, most (92%) were listed by 10 or fewer participants. This distribution is depicted in Figure 3; the number of participants (N = 80, from Study 1) are displayed on the y-axis and the number of features are displayed on the x-axis. The distribution suggests marked individual differences in prototypes of insanity.

This finding has important implications for the conduct of future prototype and jury research. Aggregate data, by definition, combine and thereby obscure any individual differences among jurors. By doing so, they (a) produce less meaningful and valid results and (b) foreclose the possibility of systematically identifying and excusing jurors with prejudicial or caricatured prototypes from jury proceedings.

---

21 The prototype measure had 61 items because 2 of the 59 feature groups were assigned two labels because they contained a conceptually distinct and important "string" of characteristics that was weakly linked to the "main body" of the feature group (for details, see Skeem, 1999).
Individual differences must be assessed and represented in future research, as they are in Study 3. When reading the results of Study 3, however, one must remember that prototypes of insanity may be as numerous as individuals. In that study, we identified three groups of jurors with different prototypes of insanity. The three prototypes presented are less representations of the entire group’s prototypes than they are prototypes of “idealized individuals” or, in this case, “idealized jurors” who fall at the group’s centroid and characterize the most distinct prototype dimensions for the group (see Tucker & Messick, 1964). Stated somewhat differently, although the members of each group are unlikely to have equivalent (or even highly similar) prototypes, their prototypes are likely to share several key characteristics.

**Aggregate Results and the Myth of the “Consensus Prototype”**

Although this research focuses directly on individual differences in prototypes of insanity, most research on prototypes and on jury decision making focuses on aggregate results. Thus, we explore aggregate data here. Most prototype studies specifically focus on the *consensus prototype*, which is defined as a composite of the features that are most frequently listed across study participants (e.g., Genero & Cantor, 1987; Rosch, 1975; V. Smith, 1991). A consensus prototype is easily derived from Study 2 data. Based on the number of jurors who contributed to each feature, the 10 features that jurors used most frequently to describe their prototypes of insanity were as follows:

- unable to discern right from wrong ($n = 25$);
- unable to function in society ($n = 15$);
- mentally retarded ($n = 14$);
Combining these features into a consensus prototype would merge unrelated and even contradictory features. How, for example, can a prototype who cannot function independently in society (Item 2) skillfully manipulate and take advantage of others (Item 10)? As shown in Study 3, these two characteristics are associated with distinct prototypes held by different groups of jurors.

As with prototype research, most studies of jury decision making in insanity defense cases focus on aggregate data. These studies have variously suggested that jurors’ conceptions of insanity fundamentally represent a “wild beast” (Hans & Slater, 1984; Roberts et al., 1987), specific cognitive or volitional impairments (Bailis et al., 1995; Finkel & Groscup, 1997; Robinson & Darley, 1995), or multiple mental state constructs (Finkel & Handel, 1989). In Study 2, the prototype feature that jurors list and endorse most often is, by far, an “inability to discern right from wrong.” Taking this feature independently and out of context would suggest that jurors’ intuitive conceptions of insanity are reducible to a M’Naghten-like (Regina v. M’Naghten, 1843) test of insanity. However, as suggested above, jurors’ conceptions are multifaceted. Jurors used an average of 7 independent features (SD = 4) to describe their conceptions. The results of this research are consistent with past findings that jurors’ conceptions of insanity involve multiple mental state constructs (e.g., irrationality; lack of control; Finkel & Handel, 1989) and more (e.g., personality characteristics).

Even though jurors’ prototypes are multifaceted, it is notable that they are not based on factors that are irrelevant to the legal question at issue, as some critics have charged (see Finkel, 1997). In keeping with the results of case vignette and narrative research (Finkel & Groscup, 1997; Finkel & Handel, 1989; Ogloff, 1991), jurors’ prototypes heavily emphasize the defendant’s mental state at the time of the offense as well as “psychiatric indicators,” including symptoms, mental illness, and involvement with the mental health care system. Specifically, the most frequently represented feature categories in this research were mental state at the time of the offense (30% of the total features), current and past psychiatric symptoms (19%), and personality characteristics (18%).

**Synopsis of Study 2**

In this study, three main steps were used to develop the prototype descriptions generated by jurors in the first study into a measure of individual differences in conceptions of insanity. First, experimenters segmented the prototype descriptions into 551 independent features and wrote them on cards. Second, jurors sorted these prototype features into piles of characteristics that were the same to them, in order to condense the feature set. Third, experimenters assigned feature labels to the feature groups that jurors agreed were the same. These 61 feature labels
were designed to capture the meaning of the feature groups, and these became the items of the measure of individual differences in conceptions of insanity.

The most important finding of this study is that jurors do not substantially agree on even a subset of the features that characterize insanity. Given that jurors have different funds of life experiences (see Kempton, 1981), it is not surprising that there are marked individual differences in prototypes of insanity. Most research obscures these individual differences by focusing on aggregate data or by inventing a “consensus prototype.” In order to produce more meaningful results that can also “provide . . . guidance for the particular potential juror” (Finkel, 1997, p. 472), individual differences must be assessed and represented. This was the focus of the third study.

Study 3: Describing Individual Differences in Conceptions of Insanity and Relating Them to Case Judgments

Method

The chief purposes of the third study were to use the measure developed in Study 2 to identify and describe individual differences in prototypes of insanity and explore their relationship to case judgments. A secondary purpose of the third study was to explore the relationship between jurors’ prototypes of insanity and their attitudes about the insanity defense and the legal system.

Juror Sample and Procedure

Participants were 135 former venirepersons who were called to appear for 1 of 20 randomly selected cases of the Third District court. Approximately half (53%) of participants were female, and most were White (94%; Hispanic, 4%; Asian-Pacific Islander, 1%; African American, 1%). Their average age was 43 years (SD = 14.98), and their average educational level was just below a bachelor’s degree (M = 15 years, SD = 2.65). Only 22% of study participants served as jurors on the index case.

Prospective participants were invited to take part in the study by telephone or postcard 2–3 months following completion of their court service. Jurors who agreed to take part in the study were mailed the study materials and, when necessary, contacted by telephone 2 and 4 weeks later and asked to return their responses. They were paid $10 for their participation.

Study recruitment was stratified on the basis of gender because men were more difficult to reach and were less likely to participate in the study than women, χ²(1, N = 395) = 11.27, p = .001. Of the 410 venirepersons called for the selected cases and invited to take part in the study, 135 returned the study measures (i.e., a 33% rate of completed participation). Although study participants did not differ from nonparticipants with respect to age, t(185) = 1.49, p = .14, or selection as jurors, χ²(1, N = 401) = 0.85, p = .36, and they did not differ from census estimates in race and ethnicity, χ²(4, N = 260) = 5.14, p > .25, they had attained higher levels of education than county census estimates, χ²(4, N = 260) = 35.90, p < .001.

Instruments

The chief instruments of this study were the measure of individual differences in insanity prototypes and an insanity case vignette. However, measures of case-relevant attitudes were also included. Although the order of the instruments administered was
counterbalanced, the measure of insanity prototypes always preceded the other instruments in order to avoid influencing prototype results.

**Insanity prototypes: Conception Checklist.** The 61 feature labels developed in Study 2 became the items of the Conception Checklist, a measure of individual differences in insanity prototypes. These items and the structure of the Conception Checklist are described below (see the section *Globally describing the prototype groups: Factor analyses*). In prototype tradition, the Conception Checklist asked jurors to spend a few minutes forming a clear mental image or representation of the prototypical person who is not responsible for his criminal actions because of mental illness. Jurors were then asked to represent this image as accurately as possible by selectively indicating the characteristics that are essential to their conception. This checklistlike approach was more appropriate than a free response method, given the focus on systematically assessing individual differences. In the Conception Checklist, jurors were specifically asked to rate the extent to which each feature label is important in defining their conception of the typical criminally insane person, using 7-point anchored Likert scales that range from *irrelevant* to *essential*.

These ratings are feature weights that indicate the importance of each feature in defining jurors' conception of insanity. This form of measurement is consistent with the prototype premise that features vary in their "definingness," or the extent to which they differentiate their category from other categories (Hampton, 1993, p. 73; Rosch, 1977, 1978). Contemporary prototype investigations have begun to account for the fact that "some attributes are more critical than others in determining similarity to prototype" (Way, 1997, p. 734) and have suggested that feature weights are a critical facet of individual differences (Kempton, 1981).

**Insanity case vignette and construal items.** Jurors were given a brief insanity case vignette based on that of Roberts et al. (1987) and reproduced in the Appendix. This vignette was chosen because it (a) produced quite evenly distributed verdicts in past research, which would permit an investigation of individual differences, (b) provided a brief but detailed description of the defendant's mental state without conclusory expert opinion, and (c) described psychosis as the basis for the insanity plea rather than less typical bases such as alcoholism or personality disorders.

Participants were asked to read the vignette carefully, placing themselves in the role of juror for the case. They were then asked to (a) render a continuous verdict on a scale from 0 to 100 to indicate the likelihood that they would find the defendant not guilty by reason of insanity (where 0 = *completely unlikely*, 50 = *can't decide*, and 100 = *completely likely*), (b) issue a categorical verdict ("Guilty" or "Not Guilty by Reason of Insanity"), and, (c) describe their perception of the defendant by rating him across 9 "case construal" items (e.g., the extent to which they believed the defendant was capable of acting differently than he did).

**Attitudes toward the insanity defense: Insanity Defense Attitude—Revised (IDA—R).** The IDA—R is a 26-item measure developed as part of the current research (Skeem, 1999). The scale measures two factors. The first factor, Strict Liability-Reduced Capacity, reflects

---

22The free response method of prototype elicitation used in Study 1 calls on jurors to access and spontaneously describe the content of their prototype. However, the checklistlike method we used requires that jurors access their prototype and determine how well each feature on a list defines that prototype. This checklist approach may result in more controlled, less schematic processing (Niemann et al., 1994), but is appropriate for three reasons. First, it permits for consistent measurement of individual differences in both future research and jury selection. Second, it avoids the difficulties involved in compiling, combining, and analyzing hundreds of features, most of which are idiosyncratic (Niemann et al., 1994). Third, it allows jurors who do not have the conceptual clarity to adequately describe their prototypes to recognize and record their important features.
the extent to which a juror believes that mental illness is relevant to the issue of criminal responsibility (e.g., "we should punish people who commit criminal acts, regardless of their degree of mental disturbance" vs. "it is wrong to punish people who commit crime for crazy reasons..."), The second factor, Perceived Injustice and Danger, reflects the extent to which a juror believes that the insanity defense is misused and jeopardizes public safety (e.g., "with slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom"). Jurors' scores on the two factors were used in the analyses described below. The IDA-R has adequate convergent and discriminant validity and predicts insanity case judgments relatively strongly (see Skeem, 1999).

Legal authoritarianism: Revised Legal Attitudes Questionnaire-23 (RLAQ-23). Legal authoritarianism was measured using Kravitz, Cutler, and Brock's (1993) RLAQ-23. Defined broadly, legal authoritarianism is an orientation toward criminal defendants and the legal system that emphasizes crime control over due process. Legal authoritarianism is one of the most effective predictors of mock jurors' decisions in criminal cases (e.g., Narby, Cutler, & Moran, 1993) and has been shown to predict insanity case verdicts (Cutler et al., 1992). The RLAQ-23 is a 23-item measure with unclear factor structure, but it has reasonable convergent and discriminant validity and can predict the scores of individuals with known attitudes (e.g., Democrats obtain lower scores than Republicans; Kravitz et al., 1993). Jurors' total scores on this measure were used in the analyses described below.

Results

In this study, we identified three prototypes of insanity and found that the particular type of prototype held by a juror predicted the way in which jurors interpreted and judged an insanity case. Prototypes of insanity were also related to systematic differences among jurors in case-relevant attitudes and demographic characteristics. These results are presented and discussed in the section below. Because the analyses involved are complex, we (a) present the statistical derivation and description of the prototype groups separately from the discussion of their nature and (b) summarize key analytic points and present in footnotes relevant details for the interested reader.

Deriving and Describing the Three Prototype Groups

Identifying prototype groups: Cluster analyses. To identify groups of individuals with different prototypes of insanity, jurors' deviation scores on the Conception Checklist were cluster analyzed. After screening the data, 4 outlying items of the checklist and 2 outlying cases were deleted, leaving 57 items and 133 jurors for these analyses. 23

23 Deviation scores on the Conception Checklist were used in cluster analyses rather than raw scores because Ward's clustering method was unduly affected by profile elevation (Aldenderfer & Blashfield, 1984; Skeem, 1999). Deviation scores remove profile elevation by centering around persons (Cronbach & Gleser, 1953), thereby placing greater emphasis on profile shape and scatter. Deviation scores are computed by subtracting from each juror's Conception Checklist item his or her average checklist score.

24 Further details on this screening process are available from Jennifer L. Skeem. Analyses were also conducted to insure that the results were not tainted by jurors who had trouble completing the Conception Checklist on the basis of their attitudes against the insanity defense. The checklist included a question that asked whether jurors had difficulty completing the questionnaire because they believed that everyone should be held responsible for their criminal actions. The cluster and
Alternative methods of cluster analysis produce different solutions for identical data sets because they apply different rules of group formation (Aldenderfer & Blashfield, 1984). Thus, we (a) applied multiple clustering methods, (b) compared the results with respect to a variety of empirical and logical criteria, and (c) retained the solution that was the most easily interpreted and best replicated across methods and subsamples. Based on the suggestions of statistical experts, we integrated two clustering methods, Ward’s method and $k$-means pass (Aldenderfer & Blashfield, 1984; Borgen & Barnett, 1987; Lorr, 1994; Morey et al., 1983), to produce this solution.

First, Ward’s method was applied and its two- and three-group solutions were used to specify an initial partition for the $k$-means pass method. Ultimately, the $k$-means three-cluster solution was chosen over the two-cluster solution because it demonstrated greater convergence with the Ward’s method solution, was more stable across subsamples, and was more easily interpreted (see Skeem, 1999).

In addition, the three-cluster solution had greater external validity than the two-cluster solution. Because cluster analyses impose structure, it is important to assess whether clusters represent natural groups. The validity of a cluster solution can be tested by determining whether the resulting clusters of individuals differ on important external variables that are conceptually related to the variables that were used to cluster them (e.g., Aldenderfer & Blashfield, 1984; Morey, Blashfield, & Skinner, 1983). According to the theory described above, individual differences in prototypes should be related to differences in how jurors interpret and judge an insanity defense case. As shown in the section Relating Prototypes to Differences in Case Judgments, the three-cluster solution was significantly related not only to case judgment variables, but also to attitudinal and demographic variables that were external to the prototype variables used to cluster the groups. This supports the external validity of the cluster solution.

**Globally describing the prototype groups: Factor analyses.** Thus, the cluster analyses identified three stable, externally valid prototype groups. To ease the interpretation of these three groups, we performed a principal components (PrC) factor analyses described below were conducted not only on the full sample of jurors, but also on the subsample of 86 jurors who denied that they had difficulty completing the checklist. The results obtained were virtually identical (Skeem, 1999), so the data from both groups of respondents were pooled.

These methods have been shown to perform well in recovering known group structure. Although the average linkage method also was used initially, the Ward’s solutions were chosen over those of average linkage because prototypes have indefinite margins and groups of individuals with different prototypes of insanity are likely to overlap. In “conditions of cluster overlap, Ward’s method has been shown to outperform most other clustering methods, while average linkage tends to do poorly” (Aldenderfer & Blashfield, 1984, p. 61, citations omitted).

For Ward’s method, the scree method, the variance ratio criterion (Calinski & Harbasz, 1974; Milligan & Cooper, 1985), and the interpretability of the solutions were used to determine that two or three groups should be retained. The $k$-means solutions were then chosen over the Ward’s solution because $k$-means is capable of correcting for initial faulty partitions of the data set.

This PrC solution was used only to aid in interpreting the results of cluster analyses. Component scores were not used as variables in the cluster analyses because the subject-to-variable ratio was low, the PrC solution explained only 47% of the variance in the checklist scores, and the items of the checklist were empirically derived to represent individual differences as fully as
analysis on the Conception Checklist in order to condense its 57 features into four components. In the following section we describe this analysis and the four components, and then we present the three prototype groups’ scores on the components.

The four-component PrC solution accounted for 47% of the total variance and appeared stable. These components were orthogonally rotated. The rotated component solution is printed in Table 1, which also lists the full set of 57 feature labels. To facilitate interpretation of the components (see Tinsley & Tinsley, 1987; Tabachnik & Fidell, 1996), we ordered and grouped the features in this table by loading size and replaced low loadings (under .37) by blanks. The first component was labeled Moral Insanity and explained 16% of the total variance. Items that loaded on this component reflect characteristics of psychopathy (e.g., “unfeeling, manipulative person”); violent, unpredictable behavior (e.g., “violent, angry and hostile . . .”); and impaired reality testing (e.g., “grossly distorted vision of reality”). The second component was labeled Severe, Chronic Disability and explained 12% of the variance. Items that loaded strongly on this component reflect characteristics of severe, chronic mental and functional impairment (e.g., “mentally retarded”; “totally debilitated”) and psychiatric treatment (“takes medication for illness,” “mental illness cannot be controlled. . .”). The third component was labeled Poorly Functioning Social Outcast and explained 10% of the variance. Items that loaded strongly on this component reflect characteristics of marginal functioning (e.g., “cannot hold a job,” “disheveled. . .”); social isolation (e.g., “withdrawn introvert who has poor social skills and no friends”), and mental illness (e.g., “suffers from a chemical imbalance. . .”). Many of the items on this scale loaded complexly with other components. The fourth component was labeled Mental State-Related Characteristics and explained 9% of the variance. Items that loaded strongly on this component describe the nature and intensity of impaired mental state at the time of the offense (e.g., “not capable of understanding the harmful consequences of his actions,” “more than temporarily insane”) and expert evidence thereof (e.g., “determined by a credible expert to clearly meet the criteria for insanity”).

Table 2 begins to describe the nature of the three prototype groups identified by cluster analyses above. It depicts the mean scores of each of the three groups across the four components of the Conception Checklist. These data indicate that the first group specifically obtained high scores on the Severe, Chronic Mental Disability component; the second group obtained high scores on the Moral Insanity component; and the third group scored highly on the Mental State-

28The correlation matrix was used as the measure of association. We determined the number of factors to retain from Cattell’s scree test, Thurstone’s criteria, the percentage of variance accounted for by each factor and each solution, the size of the communalities, how adequately the components were defined by the variables, and the interpretability of the solution (Kim & Mueller, 1978; Tabachnik & Fidell, 1989, 1996; Tinsley & Tinsley, 1987).

29A principal axis factor analysis of these data produced a solution virtually identical to the PrC solution (r > .97 between factor and component scores). Because both orthogonal and oblique solutions produced highly similar results (e.g., mean bivariate correlation between factor scores = .94, range = .86 to .98), an orthogonal rotation was used to simplify the interpretation.
Table 1

*Rotated Component Matrix for the Conception Checklist*

<table>
<thead>
<tr>
<th>Item–Feature label</th>
<th>MI</th>
<th>SCD</th>
<th>PFSO</th>
<th>MSRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfeeling, manipulative person who takes advantage of others</td>
<td>.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent, angry, and hostile to others</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has no conscience</td>
<td>.71</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control freak who needs to feel power over others</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prone to hurting himself or others</td>
<td>.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Had behavioral trouble during childhood and adolescence</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not accept responsibility for his actions—feels that his actions are justified or feels others are to blame</td>
<td>.60</td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has a poor self-image</td>
<td>.59</td>
<td></td>
<td></td>
<td>.44</td>
</tr>
<tr>
<td>Exhibits extreme, erratic, unpredictable behavior</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intoxicated on alcohol or drugs at the time of the crime</td>
<td>.54</td>
<td></td>
<td>.46</td>
<td></td>
</tr>
<tr>
<td>Grossly distorted vision of reality</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrational</td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts on voices in his head that tell him what to do</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibits unusual, inappropriate behavior</td>
<td>.47</td>
<td></td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td>Has a certain “off” look in his eyes</td>
<td>.47</td>
<td></td>
<td></td>
<td>.44</td>
</tr>
<tr>
<td>Paranoid—has an unfounded fear of others and perceives everything as a threat</td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsive—acts suddenly, without thought or planning</td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delusional—suffers from false beliefs</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentally retarded</td>
<td>.76</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentally no more than a child</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is extremely mentally ill—totally debilitated</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffered a severe head injury and brain damage</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takes medication for his mental condition</td>
<td>.67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hallucinates—hears voices or sees visions that others do not perceive</td>
<td>.40</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has a long, documented history of mental illness</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffers from acute delirium</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental illness cannot be controlled with therapy or medication</td>
<td>.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incoherent—does not make sense when he talks</td>
<td>.54</td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffers from mania, bipolar disorder, or severe depression</td>
<td>.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to function in society; needs help dealing with the daily problems and decisions in life; may require supervision</td>
<td>.50</td>
<td>.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incapable of learning</td>
<td>.43</td>
<td>.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not remember the crime</td>
<td>.42</td>
<td>.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffers from schizophrenia or psychosis</td>
<td>.39</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Withdrawn introvert who has poor social skills and no friends</td>
<td>.40</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disheveled—unclean and sloppy in appearance</td>
<td>.37</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face is blank, lacks expression</td>
<td>.45</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As a child, was unloved and uncared for by his mother</td>
<td>.53</td>
<td>.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts normal most of the time</td>
<td>.54</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is detached from his surroundings (i.e., the environment, people, and events taking place around him)</td>
<td>.52</td>
<td>.37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(table continues)*
Table 1 (continued)

<table>
<thead>
<tr>
<th>Item–Feature label</th>
<th>MI</th>
<th>SCD</th>
<th>PFSO</th>
<th>MSRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Looks normal</td>
<td>.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffers from a chemical imbalance or related medical problem</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffers from severe mood swings</td>
<td>.49</td>
<td>.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to understand court proceedings or assist in his defense</td>
<td>.46</td>
<td>.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impaired mental state is not the result of drug or alcohol abuse</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suffered severe, extended abuse or trauma (physical, psychological, or sexual)</td>
<td>.38</td>
<td>.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not capable of understanding the harmful consequences of his actions</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incapable of making a clear choice between right and wrong</td>
<td>.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is not aware of what he is doing</td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acts without reason, provocation, or rational motive</td>
<td>.48</td>
<td>.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Determined by a credible expert to clearly meet the criteria for insanity</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unable to discern right from wrong</td>
<td>.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannot control his thoughts, emotions, or actions</td>
<td>.38</td>
<td>.51</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is more than “temporarily” insane</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluated by a qualified mental health professional and diagnosed as mentally ill</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confused—cannot make decisions or focus his attention</td>
<td>.37</td>
<td>.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is more than impassioned or enraged at the time of the crime</td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. MI = Moral Insanity; SCD = Severe Chronic Disability; PFSO = Poorly Functioning Social Outcast; MSRC = Mental State-Related Characteristics.

Related Characteristics component. As indicated in the table, the groups were named “Severe Mental Disability,” “Moral Insanity,” and “Mental State-Centered,” respectively.

Fine-tuning the description of prototype groups. Although Table 2 provides a broad sense of the groups’ natures, we wanted to obtain a more specific description of the similarities and differences among the groups. Thus, analyses of variance (ANOVAs) were performed on the features that at least one group rated as important to their prototype (i.e., mean score ≥ 4.6).\(^{30}\) The results of these analyses are presented in Tables 3–6. Table 3 presents the features that were important to all three groups, in descending order of their importance to the groups. The three subsequent tables depict the “discriminating characteristics” of each group. These are characteristics on which the groups obtained significantly different scores, and they are organized by highest score per characteristic. The interpretation of the groups presented below is based on two sources of data that corroborate one another: the groups’ component scores (Table 2) and their

\(^{30}\)These univariate analyses were conducted only to aid in the interpretation of the groups; they do not account for correlated dependent variables or correct for the familywise error rate.
overlapping and discriminating characteristics (Tables 3–6). After presenting the characteristics shared by all three of the groups, we focus on each group’s discriminating characteristics.

**Unpacking and Contextualizing the Three Prototypes**

*What the three prototypes share: Mental state impairments and psychosis.* Although the essence of the severely mentally disabled (SMD), morally insane (MI), and mental state-centered (MSC) prototypes differ, the prototypes share several key features. This overlap is consistent with prototype theory. Because

---

### Table 2
**Prototype Clusters’ Average Scores Across Conception Checklist Components**

<table>
<thead>
<tr>
<th>Conception Checklist component</th>
<th>Cluster 1: Severe Mental Disability</th>
<th>Cluster 2: Moral Insanity</th>
<th>Cluster 3: Mental State-Centered Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral Insanity</td>
<td>−0.4</td>
<td>1.0</td>
<td>−0.6</td>
</tr>
<tr>
<td>Severe, Chronic Mental Disability</td>
<td>0.6</td>
<td>−0.4</td>
<td>−0.8</td>
</tr>
<tr>
<td>Poorly Functioning Social Outcast</td>
<td>−0.2</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Mental State-Related Characteristics</td>
<td>−0.2</td>
<td>−0.3</td>
<td>0.8</td>
</tr>
</tbody>
</table>

---

### Table 3
**Overlapping Characteristics Across Groups**

<table>
<thead>
<tr>
<th>Feature label</th>
<th>SMD</th>
<th>MI</th>
<th>MSC</th>
<th>Mean score across clusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unable to discern right from wrong</td>
<td>6.1</td>
<td>5.9</td>
<td>6.6</td>
<td>6.2</td>
</tr>
<tr>
<td>Not capable of understanding the harmful consequences of his actions</td>
<td>5.7</td>
<td>5.8</td>
<td>6.1</td>
<td>5.9</td>
</tr>
<tr>
<td>Evaluated by a qualified mental health professional</td>
<td>5.9</td>
<td>5.8</td>
<td>6.1</td>
<td>5.9</td>
</tr>
<tr>
<td>and diagnosed as mentally ill</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impaired mental state is not the result of drug use</td>
<td>5.2</td>
<td>4.9</td>
<td>5.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Cannot control his thoughts, emotions, or actions</td>
<td>5.1</td>
<td>5.5</td>
<td>5.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Is not aware of what he is doing</td>
<td>5.2</td>
<td>5.3</td>
<td>5.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Suffers from schizophrenia or psychosis*</td>
<td>5.4</td>
<td>5.3</td>
<td>4.8</td>
<td>5.2</td>
</tr>
<tr>
<td>Is more than “temporarily” insane</td>
<td>5.4</td>
<td>5.7</td>
<td>6.1</td>
<td>5.2</td>
</tr>
<tr>
<td>Delusional—suffers from false beliefs*</td>
<td>5.1</td>
<td>5.3</td>
<td>5.0</td>
<td>5.1</td>
</tr>
<tr>
<td>Acts on voices in his head that tell him what to do*</td>
<td>5.1</td>
<td>5.3</td>
<td>4.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Unable to function in society*</td>
<td>5.2</td>
<td>4.6</td>
<td>4.4</td>
<td>4.7</td>
</tr>
<tr>
<td>Suffers from a chemical imbalance or related medical problem</td>
<td>4.6</td>
<td>4.9</td>
<td>4.6</td>
<td>4.7</td>
</tr>
</tbody>
</table>

*Note.* Characteristics are sorted in descending order of importance across clusters. Overlapping characteristics were indicated by a lack of significant (p < .05) group differences detected by an analysis of variance, given the mean score across groups ≥ 4.6. SMD = Severe Mental Disability; MI = Moral Insanity; MSC = Mental State-Centered Characteristics.

*a The item does not load on the MSC scale.
prototypes have indefinite boundaries, groups of individuals with different prototypes of the same construct are likely to overlap.

Table 3 indicates that all three groups emphasize features of psychosis (e.g., delusional, suffers from schizophrenia, acts on voices) and heavily stress characteristics that are related to impaired mental state at the time of the offense, including (a) an inability to discern right from wrong, understand the harmful consequences of one’s actions, and control one’s thoughts, emotions and actions; and (b) a lack of awareness about what one is doing. These mental state impairments are not induced by drug use and are supported by expert evidence. Thus, regardless of the specific type of prototype a juror may have, she is likely to conceptualize the insane defendant as an individual who suffers from a psychotic disorder and has several key impairments in his mental state at the time of the offense.

The groups’ shared emphasis on impaired mental state and psychosis is consistent with previous findings that mock jurors deem multiple mental state-related characteristics relevant to insanity (Bailis et al., 1995; Finkel & Handel, 1989; Hans & Slater, 1984; Roberts et al., 1987; Robinson & Darley, 1995) and carefully weigh expert testimony and “psychiatric indicators” in determining insanity (Finkel & Groscup, 1997; Ogloff, 1991). This shared emphasis is also in keeping with prior findings that schizophrenia and other forms of psychosis are highly salient mental disorders to laypeople (Schoeneman et al., 1993) and that most insanity acquitees suffer from schizophrenia or an affective psychotic disorder (Circione, Steadman, & McGue, 1995).

As shown in Table 3, the mental state features that all three prototype groups share bear a striking resemblance to various legal standards of insanity. Clearly, the psycho-legal characteristics associated with these legal tests are important threshold issues for jurors’ determinations of insanity. However, jurors’ prototypes typically consist of more than these basic psycho-legal characteristics. The three prototype groups also have discriminating characteristics, which are presented below. As noted in the section above (Extent of Individual Differences in Prototype Descriptions), because there are substantial individual differences in prototypes of insanity, it is critical to conceptualize the three prototypes presented below not as representations of the entire group’s prototypes, but as prototypes of “idealized individuals” who fall near the group’s centroid and best capture the key prototype dimensions for the group (see Tucker & Messick, 1964).

**Prototype of the majority: SMD.** Nearly half (47%) of the jurors were best represented by an idealized individual with an SMD prototype. According to Table 4, this prototype of insanity emphasizes severe functional impairment (e.g., totally debilitated) and intellectual disabilities (e.g., mental retardation, immaturity, or trauma) that are longstanding and resistant to treatment (e.g., has a long history of mental illness that cannot be controlled with treatment). In essence, the SMD prototype is afflicted with extreme, chronic, uncontrollable mental illness and mental retardation that impairs his ability to function in society (see Tables 1–4).

This SMD conception of insanity is generally consistent with prior research that suggests that, in the aggregate, jurors’ conceptions of insanity “remain wed to the wild beast test of 1724” (Perlin, 1997, p. 1379; see Hans & Slater, 1984; Roberts et al., 1987). Judge Tracy coined this stringent test of insanity, which
Table 4
Discriminating Characteristics of the Severe Mental Disability Prototype

<table>
<thead>
<tr>
<th>Abbreviated item label for discriminating characteristic</th>
<th>SMD</th>
<th>MI</th>
<th>MSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Totally debilitated***</td>
<td>6.4</td>
<td>5.2</td>
<td>5.1</td>
</tr>
<tr>
<td>Mentally retarded***</td>
<td>5.6</td>
<td>3.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Illness cannot be controlled with treatment***</td>
<td>5.6</td>
<td>4.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Long, documented history of illness*</td>
<td>5.6</td>
<td>5.0</td>
<td>4.8</td>
</tr>
<tr>
<td>Hallucinates—voices or visions**</td>
<td>5.4</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Mentally no more than a child***</td>
<td>5.2</td>
<td>4.0</td>
<td>2.6</td>
</tr>
<tr>
<td>Suffers acute delirium**</td>
<td>5.2</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Suffered injury—brain damage***</td>
<td>5.1</td>
<td>3.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Takes medication for illness***</td>
<td>4.9</td>
<td>4.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Suffers mania, bipolar disorder, or depression*</td>
<td>4.7</td>
<td>4.7</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Note. Discriminating characteristics were indicated by significant univariate differences among groups, given that one group's mean feature score > 4.6. SMD = Severe Mental Disability; MI = Moral Insanity; MSC = Mental State-Centered Characteristics.

*p < .05. **p < .01. ***p < .001.

requires that an insane defendant be “totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, a brute or a wild beast” (Arnold's Case, 1724, as cited in Walker, 1968, p. 56). True to Judge Tracy’s description, the SMD prototype is mentally impaired, psychotic, and deprived of reason to the extent that he is animalistic or childlike (e.g., mentally no more than a child) and therefore unworthy of blame. As observed by Foucault (1965), “when the madman has become a beast . . . man himself is abolished” (p. 72).

The SMD prototype is not only beastlike, but his deprivation of reason and morality is also based on circumstances that are beyond his control. First, the SMD prototype is more likely than the other prototypes to have “physically based” mental disabilities. This resonates with Ellsworth and her colleagues’ (1984) finding that, in the aggregate, mock jurors are more inclined to deem defendants with physical impairments such as mental retardation insane than those with “strictly psychiatric” impairments. As observed by the authors, “a physical disorder may be seen as external to the person, creating a sort of necessity or duress, but a purely mental disorder may be seen as simply another manifestation of a weak or corrupted character” (p. 90). Second, jurors explicitly characterize the SMD prototype as having done everything in his power to control his mental disorder, including taking medication and participating in psychotherapy. This feature is consistent with prior aggregate-based findings that mock jurors are more likely to deem defendants insane if they did not bring about their impaired mental state at the time of the offense and made every attempt to control it (Finkel, 1989, 1995; Finkel & Handel, 1989). In summary, the SMD prototype of insanity is afflicted by a brutal, externally imposed illness that he has been unable to contain even by seeking professional help.

This study is the first to describe systematically the contours of the lay SMD prototype which, in many ways, differ from traditional legal and psychiatric constructs. First, although the SMD prototype heavily emphasizes features of
uncontrollable, furious insanity, it also includes less extreme features of mental state impairment, such as a M’Naghten-like inability to discern right from wrong. Second, the SMD prototype reflects a peculiar blend of psychosis and intellectual impairment. By expert standards, this combination is at best wildly imprecise. However, it is consistent with prior findings that laypersons rarely distinguish among mental disorders as prescribed by formal diagnostic systems (Schoeneman et al., 1993). In fact, in a study of implicit theories of schizophrenia, Furnham and Rees (1988) found that some laypeople meld together psychosis and mental retardation in a way that is uniquely relevant to criminal responsibility. Laypeople who believed that schizophrenia was based on “backwardness” or poor intelligence tended to believe that these people were amoral or incapable of “knowing any better” (p. 219). The SMD’s characteristics are identifiable not only in research, but also in contemporary media and historical representations of insanity. The news and entertainment media are laypeople’s primary sources of information about psychopathology and the insanity defense (Finkel, 1995; Hans, 1990; Perlin, 1994; Wahl, 1995). In a comprehensive review, Wahl (1995) found that the mass media often portrays the mentally ill as fundamentally inhuman and sometimes as “slow, backward, and inarticulate” (p. 20). For example, a recent headline for a New York Post article on the release of a psychiatric patient read “Village Beast May Go Free” (see Wahl, 1995, chap. 3).

The SMD prototype existed long before the media could serve as its vehicle. The image was pervasive throughout the 17th and 18th centuries, when the populace, including Judge Tracy, generally believed “that one who has lost his capacity to reason ‘has lost his claim to be treated as a human being’” (Perlin, 1994, p. 189, citation omitted). Fink (1938) proclaimed that the late 19th century “formed a period which saw the chains struck from the insane and their elevation from beasts to the stature of men” (p. 47). However, until this day “one of the most persistent, vivid, and profound pictures . . . of the mentally ill (especially of the mentally ill criminal) is that of the madman as a beast” (Perlin, 1994, p. 188).

Although well-reasoned experts have suggested that all laypersons ascribe to this picture (Perlin, 1997), the assertion is based primarily on empirical data that have focused on aggregate results (Ellsworth et al., 1984; Hans & Slater, 1984; Roberts et al., 1987). This research indicates that, although a large segment of laypersons do have a wild-beast-like or SMD prototype, the remaining half do not.

**Lay prototype of Moral Insanity (MI).** Almost one-third (33%) of the jurors were best represented by an idealized individual with an MI prototype. According to Table 5, the MI group’s conception of insanity differentially emphasizes traits of psychopathy (e.g., no conscience, unfeeling and manipulative); violent, unpredictable behavior (e.g., violent and hostile; extreme, erratic, unpredictable behavior); and psychosis (e.g., distorted vision of reality; irrational). In essence, in the MI prototype, characteristics of psychopathy and psychosis are conflated to represent a malevolent, detached, irrational, and unpredictably violent offender (see Tables 1–3 and 5).

The MI prototype reflects the evolution of the term *moral insanity* from a circumscribed disorder and mental state test, to a loosely applied psychiatric label, to our modern conception of psychopathy (see Cleckley, 1976; Fink, 1938; Maughns, 1941a, 1941b). When James C. Prichard (1837) coined the term, he launched a century of debate about its existence, nature, and manifestations.
Table 5
Discriminating Characteristics of the Moral Insanity Prototype

<table>
<thead>
<tr>
<th>Abbreviated item label</th>
<th>SMD</th>
<th>MI</th>
<th>MSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has no conscience***</td>
<td>3.7</td>
<td>6.2</td>
<td>4.0</td>
</tr>
<tr>
<td>Grossly distorted vision of reality***</td>
<td>4.6</td>
<td>5.8</td>
<td>5.1</td>
</tr>
<tr>
<td>Violent, angry, hostile to others***</td>
<td>3.5</td>
<td>5.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Extreme, erratic, unpredictable behavior**</td>
<td>5.0</td>
<td>5.7</td>
<td>4.6</td>
</tr>
<tr>
<td>Acts without reason, provocation**</td>
<td>4.6</td>
<td>5.7</td>
<td>5.1</td>
</tr>
<tr>
<td>Feels actions are justified or blames others***</td>
<td>4.2</td>
<td>5.6</td>
<td>3.0</td>
</tr>
<tr>
<td>Prone to hurting himself or others***</td>
<td>4.3</td>
<td>5.5</td>
<td>4.4</td>
</tr>
<tr>
<td>Irrational*</td>
<td>4.6</td>
<td>5.4</td>
<td>4.6</td>
</tr>
<tr>
<td>Unfeeling, manipulative—takes advantage***</td>
<td>2.5</td>
<td>5.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Suffered extended abuse—trauma***</td>
<td>4.8</td>
<td>5.1</td>
<td>3.6</td>
</tr>
<tr>
<td>Paranoid—perceives everything as a threat**</td>
<td>4.1</td>
<td>5.0</td>
<td>4.2</td>
</tr>
<tr>
<td>Detached from surroundings**</td>
<td>3.9</td>
<td>5.0</td>
<td>4.4</td>
</tr>
<tr>
<td>Unusual, inappropriate behavior***</td>
<td>3.2</td>
<td>4.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Control freak who needs to feel power***</td>
<td>2.8</td>
<td>4.8</td>
<td>2.1</td>
</tr>
<tr>
<td>Suffers severe mood swings**</td>
<td>3.7</td>
<td>4.8</td>
<td>3.7</td>
</tr>
<tr>
<td>Behavioral trouble during childhood***</td>
<td>3.4</td>
<td>4.7</td>
<td>2.9</td>
</tr>
<tr>
<td>Impulsive—acts without planning*</td>
<td>3.6</td>
<td>4.6</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Note. Discriminating characteristics were indicated by significant univariate differences among groups, if one group's mean feature score is $\geq 4.6$. SMD = Severe Mental Disability; MI = Moral Insanity; MSC = Mental State-Centered Characteristics.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Moral insanity was the product of a controversial distinction in the 19th century between affective and intellectual "faculties." It was typically defined as a selectively diseased state of will in an otherwise intact individual (Ray, 1861, as cited in Fink, 1938). Alienists and scholars in medical jurisprudence, most notably Isaac Ray, championed moral insanity and associated it with an "irresistible impulse" to commit an offense—an impulse that should absolve the offender of culpability (Belkin, 1996). In fact, Ray contended that moral insanity was sometimes manifested by a single, unpredictable, heinous act committed with no apparent motive (Belkin, 1996; Fullwinder, 1975). However, critics charged that the will could not be selectively impaired—that moral insanity was nothing more than "untrained passions" or wickedness (Gray, 1857, as cited in Fullwinder, 1975, p. 93). In the high-profile trial of Charles J. Guiteau for the assassination of President Garfield in 1881, the debate about moral insanity reached a fevered pitch (Fink, 1938). Moral insanity was ultimately rejected as a psychiatric category and as a legal defense. In fact, many current insanity defense statutes still specifically exclude psychological disorders that are manifested exclusively by criminal behavior (see Melton, Petrila, Poythress, & Slobogin, 1997).

Before its demise, however, the term moral insanity became "identified by one writer or another and at one time or another as almost any form of mental abnormality" (Fink, 1938, p. 74), including types of psychosis like dementia praecox. In the 20th century, moral insanity came to be understood as moral depravity and was gradually replaced by the modern labels of psychopathy and antisocial personality disorder. The lay MI prototype reflects the semantic evolution of the term over the past 150 years in its blending of psychopathy, psychosis, and impaired mental state.
This blend of characteristics is identifiable in contemporary empirical work. In a study of how laypeople intuitively classify psychiatric disorders, Schoeneman et al. (1993) found that psychopathy was closely clustered with various forms of psychosis and “insanity.” Similarly, Steadman and Cocozza (1978) found that laypeople viewed the criminally insane as more violent, dangerous, and harmful than the mentally ill. Most striking, however, is the resemblance of the MI prototype to the most persistent, pervasive, and powerful media stereotype of the mentally ill: the psychotic psychopath (Wahl, 1995). This stereotype reigns, despite agreement among psycho-legal professionals “that the blending of the manipulative, antisocial, but clear-thinking aspects of psychopathic individuals with the disabling pathology of the person with psychosis represents a decidedly unlikely combination” (Wahl, 1995, pp. 19–20). Content analyses of popular media portrayals of the mentally ill repeatedly demonstrate that the mentally ill are much more likely to be assigned violent, villainous roles than other characters, including other minorities (Gerbner, 1993, as cited in Wahl, 1995; Signorelli, 1989; see also Hyler, Gabbard, & Schneider, 1991; Wahl & Roth, 1982). Conceptions of the mentally ill as violent, unpredictable, and dangerous are likely cemented by the news media, which seizes on crime stories that involve “mental patients” or defendants who raise the insanity defense (Day & Page, 1986). Shain and Phillips (1991) found that 86% of newspaper stories that involved psychiatric patients focused on the commission of a violent crime, usually murder or mass murder. These stories are highly likely to be selected for front-page exposure (Matas, el-Guebaly, Harper, Green, & Peterkin, 1986).

These media portrayals are shaped by historical and economic forces. The history of “moral insanity” suggests that versions of the MI prototype existed centuries ago. The MI prototype’s association of psychopathology with moral depravity, in particular, has extensive social and political roots. Before the mentally ill came to be viewed as such during the early Renaissance, European scholars typically associated psychopathology with demonic possession or with punishment for sin (Carson, Butcher, & Mineka, 1998). In fact, the notion that bad deeds might precipitate mental illness continued, in muted form, into the mid-19th century. During this period, psychopathology was often associated with violating the natural laws that govern human behavior by, for instance, engaging in immoral acts (Wahl, 1995). Although not in vogue, the view that psychopathology is punishment for sin persists today (Dain, 1992).

Like early scholars, laypeople with MI prototypes may implicitly believe that morally insane people have moral defects that are inherited or acquired through disease and render them less responsible for their actions (Cleckley, 1976; Fink, 1938; Lewis, 1974; Maughs, 1941b). Because the contemporary MI prototype is also psychotic, however, the morally insane have impairments in both will and reason that should absolve them of criminal responsibility. Nevertheless, there are some unresolved issues about this prototype. In Study 1, several jurors who described MI prototypes complained that it was difficult to determine where to “draw the line” between psychopathy and insanity. Thus, further research is needed to determine (a) the extent to which characteristics of psychopathy must be balanced by symptoms of psychosis and impaired mental state in order for a defendant to qualify as insane according to the MI prototype and (b) the extent to
JURORS' CONCEPTIONS OF INSANITY

which MI is a bonafide prototype of insanity or a prototype of those who raise the insanity defense.

Legally relevant prototype: Mental State-Centered Characteristics (MSC). Just less than one-quarter (21%) of the jurors were best represented by an idealized individual with an MSC prototype. According to Table 6, the MSC group’s conception of insanity focuses narrowly on issues relevant to the nature and extent of the defendant’s impaired mental state at the time of the offense (e.g., incapable of choosing between right and wrong, more than “temporarily” insane). As shown in Table 3, the MSC prototype shares most of its characteristics with the other prototypes: in fact, 70% of the prototype groups’ shared characteristics are features that loaded on the Mental State-Related Characteristics Scale of the Conception Checklist. Nevertheless, the MSC group emphasizes these characteristics somewhat more strongly and much more exclusively than do the other two groups. In essence, the MSC prototype is afflicted almost exclusively with various impairments in his mental state at the time of an offense, and these impairments are clearly supported by expert evidence (see Tables 1–3 and 5).

The finding that a minority of jurors have relatively tightly focused, legally relevant prototypes of insanity is consistent with the results of several attitudinal studies. These studies demonstrate that only a minority of laypeople strongly endorse the fundamental moral logic and implications of the insanity defense (Hans, 1986; Roberts et al., 1987). For example, just over one third of laypeople believe that it is wrong to punish the insane (Hans, 1986). These people who strongly “believe in” the insanity defense may have tightly focused MSC prototypes. Two points support this hypothesis. First, the MSC’s characteristics are linked by the premise that mental illness is associated with reduced capacity for forming intent, making rational decisions, and controlling one’s behavior. Second, as explained below, there was a trend in this study for those with MSC prototypes to endorse the basic logic of the insanity defense more strongly than the other two groups. Those with MSC-like prototypes tended to believe that when mental illness is associated with reduced capacity, it negates blameworthiness.

The MSC prototype has roots that extend to “the earliest recordings of Hebrew law” (Golding & Roesch, 1987, p. 397). It is built on a broad, historical interpretation of mens rea, or a fundamental belief that an “act is not legally cognizable as evil, and hence criminally punishable, unless it is committed by a person who has the capacity to cognize the act as evil and then freely chooses to

Table 6

<table>
<thead>
<tr>
<th>Abbreviated item label</th>
<th>SMD</th>
<th>MI</th>
<th>MSC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credible expert opines that he is insane*</td>
<td>5.7</td>
<td>5.5</td>
<td>6.3</td>
</tr>
<tr>
<td>Incapable of choosing right or wrong**</td>
<td>4.9</td>
<td>5.6</td>
<td>6.0</td>
</tr>
<tr>
<td>More than merely impassioned or enraged**</td>
<td>4.3</td>
<td>5.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Cannot assist counsel with his defense*</td>
<td>3.9</td>
<td>3.8</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Note. Discriminating characteristics were indicated by significant univariate differences among groups, if one group’s mean feature score is ≥ 4.6. SMD = Severe Mental Disability; MI = Moral Insanity; MSC = Mental State-Centered Characteristics.
* p < .05  ** p < .01
do it” (Golding & Roesch, 1987, p. 395). Relative to contemporary interpretations, early formulations of mens rea were quite inclusive (see Clark, 1987; Golding & Roesch, 1987; Melton et al., 1997; Sayre, 1932). Thus, the MSC includes diverse forms of mental state impairments that span a range of themes associated with legal tests of insanity.

**Summary.** There are three groups of jurors with prototypes of insanity that resonate with historical conceptions of insanity, contemporary psycho-legal research findings, and media portrayals of mental illness. The next step is to explore the implications of these prototypes for juror decision making in insanity defense cases. Does it matter whether a juror expects a wild beast (SMD), a psychotic psychopath (MI), or just plain mental state impairments (MSC)?

**Relating Prototypes to Differences in Case Judgments**

Although this study is exploratory, the theory presented in the introduction posits that differences in individuals’ prototypes of insanity produce differences in the way that they construe and judge cases. Hence, the groups defined by the three-cluster solution were compared by multivariate analysis of variance (MANOVA) to determine whether their judgments on the insanity vignette differed, including their construal of the case across seven dimensions and their rating of the likelihood that they would judge the defendant not guilty by reason of insanity (“insanity likelihood rating”; see Humphreys & Rosenbeck, 1995).

The results indicate that jurors’ prototypes of insanity are significantly and meaningfully related to the way in which they interpret case information and issue verdicts. Using Wilks’s criterion, the three clusters differed significantly on the combined construal items and insanity likelihood rating, $F(16, 246) = 2.08, p = .009$. The results reflected a moderate association between cluster membership and the dependent variables, $\eta = .23$. Conservative post hoc tests using Tukey’s honestly significant difference (HSD) were conducted to examine the specific differences among the three insanity prototype groups. The results of this analysis are presented in Table 7 and in Figures 4 and 5. The data indicate that the MSC group differed significantly from the SMD and MI groups with respect to the three of the seven construal items noted above. Relative to the other two groups, the MSC group perceived the defendant as significantly more mentally disordered (MSC: $M = 5.6, SD = 1.0$; SMD: $M = 4.6, SD = 1.0$; MI: $M = 4.6, SD = 2.0$), less capable of controlling his beliefs (MSC: $M = 3.0, SD = 1.0$; SMD: $M = 4.1, SD = 2.0$; MI: $M = 4.0, SD = 2.0$), and less worthy of punishment (MSC: $M = 3.9, SD = 1.0$; SMD: $M = 5.0, SD = 1.0$; MI: $M = 5.1, SD = 2.0$). The MSC group was more likely to deem the defendant not guilty by reason of insanity than both the SMD and MI groups, although the difference between the MSC and MI group did not reach statistical significance (MSC: $M = 57.5, SD = 30.0$; SMD: $M = 40.4, SD = 28.0$; MI: $M = 42.3, SD = 31.0$). Although the groups also

---

31 Because it is assumed that the differences observed in sample sizes reflect actual differences in the population, the sequential method of decomposing the sum of squares was applied to adjust for unequal sample sizes.

32 Based on a screening of the data, two construal items were deleted because they were nearly redundant with the remaining items.
Table 7
Post Hoc Comparisons of Insanity Prototype Clusters Across Case Judgment Variables

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Group I</th>
<th>Group J</th>
<th>Mean difference (I — J)</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defendant suffers from mental disorder</td>
<td>MSC</td>
<td>SMD</td>
<td>1.01**</td>
<td>.33</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>SMD</td>
<td>MI</td>
<td>.96*</td>
<td>.35</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>.05</td>
<td>.29</td>
<td>.98</td>
</tr>
<tr>
<td>Defendant appreciated that what he was doing was wrong</td>
<td>MSC</td>
<td>SMD</td>
<td>.80</td>
<td>.42</td>
<td>.14</td>
</tr>
<tr>
<td>before he acted</td>
<td>SMD</td>
<td>MI</td>
<td>.22</td>
<td>.45</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>.58</td>
<td>.37</td>
<td>.25</td>
</tr>
<tr>
<td>Defendant was capable of perceiving reasonable</td>
<td>MSC</td>
<td>SMD</td>
<td>-.73</td>
<td>.40</td>
<td>.16</td>
</tr>
<tr>
<td>alternatives to what he did</td>
<td>SMD</td>
<td>MI</td>
<td>-.54</td>
<td>.43</td>
<td>.42</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>-.19</td>
<td>.35</td>
<td>.85</td>
</tr>
<tr>
<td>Defendant was capable of acting differently than he did</td>
<td>MSC</td>
<td>SMD</td>
<td>.02</td>
<td>.41</td>
<td>.99</td>
</tr>
<tr>
<td></td>
<td>SMD</td>
<td>MI</td>
<td>.23</td>
<td>.44</td>
<td>.87</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>-.20</td>
<td>.36</td>
<td>.84</td>
</tr>
<tr>
<td>Defendant couldn’t help believing the things he</td>
<td>MSC</td>
<td>SMD</td>
<td>-1.03*</td>
<td>.38</td>
<td>.02</td>
</tr>
<tr>
<td>believed</td>
<td>SMD</td>
<td>MI</td>
<td>.99*</td>
<td>.40</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>-.04</td>
<td>.33</td>
<td>.99</td>
</tr>
<tr>
<td>Defendant was reasonably capable of rational behavior</td>
<td>MSC</td>
<td>SMD</td>
<td>-.43</td>
<td>.36</td>
<td>.46</td>
</tr>
<tr>
<td></td>
<td>SMD</td>
<td>MI</td>
<td>-.37</td>
<td>.38</td>
<td>.60</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>-.05</td>
<td>.31</td>
<td>.98</td>
</tr>
<tr>
<td>Defendant should be punished</td>
<td>MSC</td>
<td>SMD</td>
<td>-1.18**</td>
<td>.35</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>SMD</td>
<td>MI</td>
<td>-1.21**</td>
<td>.37</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>.04</td>
<td>.30</td>
<td>.99</td>
</tr>
<tr>
<td>Rating of likelihood of personal finding that defendant</td>
<td>MSC</td>
<td>SMD</td>
<td>17.14*</td>
<td>6.79</td>
<td>.03</td>
</tr>
<tr>
<td>is not guilty by reason of insanity</td>
<td>SMD</td>
<td>MI</td>
<td>15.17</td>
<td>7.23</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td>MI</td>
<td></td>
<td>1.97</td>
<td>5.91</td>
<td>.94</td>
</tr>
</tbody>
</table>

Note. The construal items were rated on 7-point scales; the likelihood item was rated on a 100-point scale. MSC = Mental State-Centered Characteristics; SMD = Severe Mental Disorder; MI = Moral Insanity; SE = standard error.
* p < .05. ** p < .01.

differed on the less sensitive but more realistic categorical measure of verdicts ("guilty" verdicts, MSC = 46%, SMD = 70%, MI = 65%), the differences were not statistically significant, $\chi^2(2, N = 133) = 4.46, p = .12$.

These analyses involve a single case vignette that was not designed to target and test the effect of the three different groups of insanity prototypes. Ideally, we
would use a series of case vignettes that were tailored to match the key features of each of the three prototypes. Nevertheless, the results make sense. The vignette describes a young defendant who is marginally functional (working as a dishwasher) and whose adjustment had been deteriorating over recent years, with the emergence of increasing isolation, unclear speech, and delusions. The vignette emphasizes the defendant’s persecutory delusions and strongly suggests that they are related to his impulsive, violent crime. Given that the vignette focuses on impaired mental state at the time of the offense and does not portray the defendant as extremely mentally disabled or psychopathic, it is not surprising that the MSC
group deemed the defendant more insane and less worthy of punishment than the SMD and MI groups. For the latter groups, mental state-related characteristics are not strong, organizing features of their insanity prototypes. The defendant's characteristics match the circumscribed essence of the MSC prototype but do not reflect the additional features or essence of the other prototypes.

The MSC group also perceived the defendant as less capable of controlling his beliefs and more mentally disordered than the other groups. First, because the MSC group emphasizes an inability to make a clear choice between right and wrong, the defendant's lack of control over his delusions may have been more salient to the MSC group than the other groups. Second, the MSC group emphasizes symptoms of mental disorder that are related to mental state, rather than more severe symptoms and disorders emphasized by the MI and SMD groups. Thus, it makes sense that the MSC group perceived the defendant as more mentally disordered than the other groups.

Relating Prototypes to Differences in Case-Relevant Attitudes

To assess the extent to which jurors' conceptions of insanity are related to or "tainted by" their attitudes, we used a MANOVA\(^\text{33}\) to compare the three prototype groups to determine whether they differed in their legal authoritarianism (i.e., total RLAQ-23 scores) or attitudes toward the insanity defense (i.e., two factor scores on the IDA-R). There were significant and meaningful differences among these groups in their case-relevant attitudes. Using Wilks's criterion, the three groups differed significantly on the combined attitudinal dependent variable, \(F(6, 256) = 4.64, p = .000\). The results reflected a moderate association between cluster membership and the attitudinal dependent variables, \(\eta = .32\).

Post hoc tests using Tukey's HSD were conducted to determine the specific nature of differences among the prototype groups (see Keppel, 1991, p. 174). The results indicate that the MSC group differed significantly from the SMD and MI groups with respect to both legal authoritarianism and attitudes toward the insanity defense (see Table 8). Relative to the other two groups, the MSC group was significantly less authoritarian in their attitudes (RLAQ: MSC, \(M = 77.9, SD = 13.0\); SMD, \(M = 85.9, SD = 12.0\); MI, \(M = 90.8, SD = 9.0\)), that is, they were more likely to support the constitutional rights ascribed to defendants as necessary components of the legal process and were less likely to champion unbridled police power. The MSC group was also less likely than the other groups to perceive the insanity defense as a frequently abused criminal defense that jeopardized public safety (IDA-R Factor 2: MSC, \(M = -.49, SD = .90\); SMD, \(M = -.11, SD = 1.00\); MI, \(M = .18, SD = 1.00\)). The MSC group was also more likely to believe that mental illness is associated with reduced capacity and criminal culpability; however, differences among groups on this belief were not statistically significant (IDA-R Factor 1: MSC, \(M = -.43, SD = 1.00\); MI, \(M = .13, SD = 1.00\)). Thus, jurors whose prototypes specifically emphasize characteristics related to the defendant's mental state at the time of the offense were

\(^{33}\)Based on an assumption that the differences observed in sample sizes reflected actual differences in the population, the sequential method of decomposing the sum of squares was applied to adjust for unequal sample sizes.
consistently more oriented toward due process than crime control and less likely to perceive the insanity defense as unjust and dangerous than jurors with other prototypes.

These results are consistent with prior research that demonstrates a relationship between individuals’ prototypes of, and attitudes toward, particular social groups (Eagly & Mladinic, 1989; Hilton & von Hippel, 1996; A. Lambert & Wyer, 1990; Lord et al., 1984; Stangor et al., 1991). Because attitudes resist change (Petty, Wegener, & Fabrigar, 1997; see also Jeffrey & Pasewark, 1984), their relationship to prototypes may render them more resistant to modification. Prototypes of insanity may be more responsive to interventions designed to reduce the application of stereotypes (Hilton & von Hippel, 1996) than those designed to reduce reliance on prototypes in legal decision making (V. Smith, 1993). This is a topic to be pursued in future research.

This relationship between prototypes and attitudes, however, provides a second, supplementary avenue for assessing juror bias in insanity defense cases. In addition to investigating the nature of prototypes of insanity, one might also assess a juror’s legal authoritarianism and attitudes toward the defense. As shown below, one may also look for key demographic differences to differentiate among groups.

### Relating the Prototypes to Demographic Differences

Analyses were conducted to determine whether the three prototype groups differed in their demographic characteristics. Because demographic dependent variables were weakly correlated ($r < .15$), we conducted five univariate tests, using a Bonferroni correction to produce a familywise error rate of $p = .05$. The
groups did not differ significantly with respect to age, $F(2, 130) = .51, p = .60$; race, $\chi^2(2, N = 130) = 4.86, p = .09$; or whether they knew someone who was mentally ill, $\chi^2(1, N = 132) = 5.08, p = .08$. However, members of the MSC group had significantly more education than members of the other two groups, $F(2, 127) = 4.63, p = .01$. Although the MSC group had an average of 17 years of education ($SD = 3$), the SMD and MI groups had averages of 15 years ($SDs = 2$ and 3, respectively). There was also a significant and more meaningful difference across groups with respect to gender, $\chi^2(2, N = 133) = 9.54, p = .008$. The SMD group was approximately equally represented by both genders (44% men), but the MSC group was composed of more men (71% men), and the MI group was composed of more women (35% men).

In summary, those with MI prototypes were more likely to be women, and those with MSC prototypes were more likely to be highly educated and men. In a well-designed study, Kempton (1981) found that gender-related differences in prototypes were attributable to differences in life experiences (see also Eagly & Mladinic, 1989; Kempton, 1981; A. Lambert & Wyer, 1990; Lord et al., 1984; Stangor et al., 1991). Past research suggests that women perceive the mentally ill as more dangerous than men (Ryan, 1998). Perhaps women are more likely to have psychotic, psychopathic prototypes because they are sensitive to the media’s portrayal of women as the targets of choice for violent “madmen” (Wahl, 1995). More highly educated individuals may be more likely to have mental state-centered prototypes because they become more critical consumers of media representations of mental illness. These ideas, of course, are speculative.

**Synopsis of Study 3**

This study focused on determining the nature of jurors’ prototypes of insanity and exploring their relationship with case judgments and case-relevant attitudes. In this study, jurors completed measures of individual differences in insanity prototypes and case-relevant attitudes. They also read a brief insanity case vignette, rated their perception of the defendant across several dimensions, and issued a verdict for the case.

Three groups of jurors with different prototypes of insanity were identified. All three groups’ prototypes of insanity emphasized symptoms of psychosis and a variety of impairments in mental state at the time of the offense. Almost half (47%) of the jurors were best represented by an idealized individual with a prototype of “Severe Mental Disability” (SMD): a defendant afflicted with extreme, chronic, uncontrollable mental illness and mental retardation that impairs his ability to function in society. Some 33% of jurors, most of whom were women, were best represented by an idealized individual with a prototype of “Moral Insanity” (MI), which conflates characteristics of psychopathy and psychosis to represent a malevolent, detached, irrational, and unpredictably violent offender. Only 21% of jurors, most of whom were highly educated and male, were best represented by an idealized individual with a prototype of “Mental State-Centered Characteristics” (MSC), or a defendant afflicted almost exclusively with varied, but clearly supported impairments in his mental state at the time of an offense. Each of the three prototypes identified resonated with current research and historical conceptions of insanity.
There were several key differences among the three prototype groups in their attitudes toward the insanity defense and the legal system. The “wild beast” (SMD) and “psychotic psychopath” (MI) prototype groups valued crime control over due process and believed that the insanity defense is easily abused, with dangerous consequences. In contrast, the minority of jurors with tightly focused, legally relevant prototypes of insanity (MSC) believed that a defendant’s constitutional rights should be protected.

More important, the three prototypes were significantly and meaningfully related to differences in the way in which jurors interpreted case information and rendered verdicts. Relative to the other two groups, those with MSC-like prototypes perceived the defendant as significantly more mentally disordered, less capable of controlling his beliefs, and less worthy of punishment. Jurors with MSC-like prototypes were also more likely to deem the defendant not guilty by reason of insanity than those with SMD and MI prototypes, although the latter difference did not reach significance. These results make sense, given that the case vignette focused on the defendant’s persecutory delusions and their probable relationship to his impaired mental state at the time of the offense. The defendant’s characteristics best matched the essence of the MSC prototype. The implications of these findings are addressed in the general discussion below.

Study 4: An Attempt to Replicate the Juror Results With Undergraduate Students

The participants in the first three studies of this research were former venirepersons from the Third District Court of Utah. Because the process of obtaining access to and studying actual venirepersons and jurors can be grueling, most prior research on jury decision making has been conducted with undergraduate students. The goal of this study was to determine the extent to which jurors’ prototypes of insanity could be generalized to undergraduate students. If jurors’ prototypes were highly similar to those of undergraduate students, future research could focus on convenient student samples and rest more confidently on the assumption that the results would adequately characterize actual juror pools. If there were substantial differences between jurors’ and students’ prototypes, however, future research should focus on jurors as the population of interest.

Method

Study participants were 264 undergraduate students newly enrolled in an introductory psychology course who obtained extra course credit for their participation. Approximately half (51%) of participants were men, most (82%) were White, and their average age was 25 years ($SD = 18.63$). Of the 398 students invited to take part in the study, 264 did so, for a participation rate of 66%. Participants completed the juror-based, 57-item Conception Checklist; then they read the insanity case vignette used in Study 3 and rendered judgments about the case.

Results

In this study, we assessed the ability to generalize jurors’ prototypes to undergraduate’s prototypes of insanity by addressing two issues: (a) whether undergraduate prototype groups similar to those of juror prototype groups could
be derived, and (b) whether the derived undergraduate prototype groups were valid. Given that a juror-based measure was used to elicit undergraduate’s prototypes, merely deriving undergraduate prototype groups that look similar to those of jurors would not be compelling evidence that the latter prototype groups are valid. To determine whether the derived prototype groups actually exist and adequately reflect student’s prototypes, we also assessed the extent to which the groups differ in their insanity case judgments.

**Similarity Between Undergraduate and Juror Prototypes**

To identify groups of individuals with different prototypes of insanity, undergraduates’ deviation scores on the Conception Checklist were cluster analyzed, using the same procedures described for jurors in Study 3. The three-group solution that was retained was derived by using Ward’s method to seed the k-means pass method. To determine the similarity of this solution with that derived for jurors, we conducted an additional cluster analysis. In this analysis, the three-group Ward’s solution obtained with jurors was used to specify an initial partition for the k-means pass method on the undergraduate data. This “juror-seeded” k-means solution was then compared with the “undergraduate-seeded” k-means solution obtained described above. The chance-corrected level of agreement between the two solutions for classifying undergraduates was excellent ($K = .71$): 81% of cases were classified in the same way by the two methods. Thus, the undergraduate three-cluster solution appears similar to that obtained with jurors.

On the basis of their scores on the Conception Checklist, the undergraduate students were grouped into MI, MSC, and SMD groups, to be consistent with the labels assigned in Study 3. In contrast with jurors, 28% of undergraduates were classified in the SMD group, 37% in the MI group, and 35% in the MSC group.

**Validity of Undergraduate Prototypes**

In an attempt to externally validate the derived undergraduate groups, we assessed the extent to which prototype differences predicted differences in insanity case judgments. The three undergraduate groups were compared by MANOVA to determine whether their judgments on the insanity vignette differed. The results indicated that the groups did not differ significantly on the combined case construal items and scaled verdict, $F(14, 458) = .083, p = .63$. The groups also did not differ in their categorical verdicts, $\chi^2(2, N = 246) = 0.07, p = .97$.

**Implications of Study 4**

Although the undergraduate cluster solution was similar to the juror solution, the undergraduate groups did not differ in the way in which they construed and judged cases. That the three juror prototype groups differed in their case judgments, case-relevant attitudes, and demographic characteristics in highly interpretable ways validated that the groups were being discovered in, rather than imposed on, the data. In this study, undergraduate’s prototypes could not be externally validated.

This suggests that the cluster solution applicable to jurors does not generalize well to undergraduate students. A central thesis of this research is that knowledge structures are experience based; jurors are a heterogeneous, “experienced” group
and are likely to have different conceptions of insanity than undergraduate students enrolled in an introductory psychology course. The Conception Checklist was inductively developed to represent individual differences in jurors’ prototypes of insanity. Thus, it represents jurors’ concepts and language. If a similar measure had been developed with undergraduate students, different items and prototypes of insanity may have emerged. The Conception Checklist may not adequately represent the range of individual differences in prototypes of insanity among undergraduate students.

Therefore, further research is needed to determine whether the present results reflect a failure to replicate the case judgment effects of Study 3, or merely an inability to generalize the results of Study 3 from jurors to undergraduates. Because jurors are clearly the most relevant population in which to study jury decision making, however, this research should focus on determining whether the prototype results and their effects on case judgments can be replicated with an independent sample of jurors.

**General Discussion**

*Summary of Findings*

This research is among the first to examine systematically the nature and variability of jurors’ conceptions of insanity and their impact on insanity case judgments. The primary findings presented above may be organized into three points. First, jurors have complex, multifaceted prototypes of insanity that cannot be reduced to legal tests of insanity or to psychiatric diagnoses. Second, these prototypes vary markedly across individuals. However, there are three discernible groups of jurors, represented by idealized individuals with prototypes that emphasize severe mental disability, a lay conception of moral insanity, or characteristics more exclusively related to mental state at the time of the offense. Each of these prototypes has clear historical roots and is consistent with contemporary research. Third, prototypes of insanity are associated with case-relevant attitudes and strongly affect the way in which jurors construe case facts and render verdicts. Thus, jurors bring to insanity defense cases not “blank slates” but personal, complex webs of interrelated knowledge structures that drive their perception of evidence and their verdicts.

Regardless of their type of prototype, all jurors’ conceptions of insanity emphasized multiple impairments in mental state at the time of the offense and symptoms of psychosis. Although professional definitions of insanity and serious mental disorder turn on such pivotal issues, they are often merely “threshold” issues for lay determinations of insanity: Jurors bring considerably more to the jury box. Specifically, nearly half of jurors had an SMD-like prototype afflicted with extreme, chronic, uncontrollable mental illness and retardation that impaired his ability to function in society. Approximately one-third of jurors had MI-like prototypes that conflated symptoms of psychosis and psychopathy to represent a malevolent, detached, and unpredictably violent offender. Jurors with SMD- or MI-like prototypes, who comprised 79% of the sample, believed that the insanity defense was a frequently and easily abused criminal defense that jeopardized public safety and championed crime control and police power over due process of law. In striking contrast, less than one-fourth of jurors had MSC-like prototypes.
that exclusively emphasized legally relevant, clearly substantiated impairments in mental state at the time of the offense. These jurors were less likely to perceive the insanity defense as unjust and were less authoritarian in their attitudes, as they tended to believe that the constitutional rights ascribed to defendants were necessary components of the legal process.

These individual differences in prototypes of insanity and case-relevant attitudes predicted the ways in which jurors interpreted case information and rendered verdicts. Even given a single vignette of a typical insanity defense case, jurors with MSC-like prototypes were significantly more likely than the remaining jurors to perceive the defendant as substantially mentally disordered, incapable of controlling his beliefs, and unworthy of punishment. They were also often more likely to deem the defendant insane.

**Implications for Psycholegal Practice**

The relationships among jurors’ prototypes of insanity, case-relevant attitudes, and case judgments have serious implications. They suggest that the typical defendant who would be legally acquitted by reason of insanity would face a jury with predominantly prejudicial preconceptions and attitudes that may prevent them from genuinely entertaining a plea of insanity. Most (70%) defendants who are acquitted by reason of insanity are acquitted through plea agreements among legal professionals rather than through “full-fledged jury trials” (Melton et al., 1997, p. 188). The typical defendant who is acquitted by reason of insanity is a psychotic man with a psychiatric history who commits a violent crime (e.g., Circione et al., 1995; Rice & Harris, 1990). Similarly, the defendant depicted in the study vignette was a psychotic man with persecutory delusions that prompted him to kill a mail carrier. These characteristics match the circumscribed essence of the MSC prototype, but they do not reflect the additional characteristics or essence of the “wild beast” (SMD) or psychotic psychopath (MI) prototypes held by most jurors. Moreover, the latter jurors have negative attitudes toward defendant’s due process rights and the use of the insanity defense. Although further research is needed, these data suggest that many jurors’ prototypes of insanity are prone to convict.

To better insure the fairness and accuracy of jury trials in insanity defense cases, attempts should be made to address jurors’ prejudicial prototypes and bring their decisions into greater accord with the law. First, even Finkel (1997), a strong advocate of “common sense justice” who believes that jurors’ decision making can often inform the law, acknowledges that sophisticated research is likely to reveal some prototypes that are “biased and conviction prone. These are the prototypes the law wants to curb and correct” (p. 483). Second, even if one does not view the SMD and MI prototypes as prejudicial, as reasoned by Penrod and Heuer (1997), “lay decisions can and should be brought into better conformity with the law, if for no other reason than to bring greater regularity and predictability to decision making” (p. 261).

There are two phases of trial at which one may attempt to address jurors’ potentially prejudicial knowledge structures: (a) during the jury selection procedure; and, perhaps more important, (b) during the presentation of expert evidence on a defendant’s mental state at the time of the offense.
Reforming or Better Using the Jury Selection Procedure

One method for bringing jurors' decisions into greater accord with the law is to examine routinely the nature of jurors' insanity case-relevant preconceptions and attitudes at voir dire in order to identify clearly biased jurors and exclude them from jury service. Based on its pivotal role in protecting a fundamental constitutional right, voir dire is "perhaps the most important stage of any trial" (Dayan, Mahler, & Widenhouse, 1989, p. 191). However, the courts are increasingly conducting "streamlined" voir dire examinations that limit attorneys' participation and may be of inappropriate nature and insufficient scope to reveal juror bias (see Johnson & Haney, 1994). Judges are accorded broad discretion in determining the procedure and content of voir dire. Their discretion is narrowed only in cases that involve interracial violent crimes, capital punishment, or significant pretrial publicity, where jurors' racial prejudice, attitudes toward the death penalty, or preconceptions about the defendant's guilt, respectively, must be "covered" (see Johnson & Haney, 1994; Sklansky, 1996). Even in these cases, however, the Supreme Court has upheld relatively superficial questioning, reasoning that "the trial court retains great latitude in deciding what questions should be asked on voir dire" (Mu'Min v. Virginia, 1991, p. 424). In his dissent, Justice Marshall argued that such decisions are turning defendants' rights to an impartial jury into a "hollow formality" (p. 433).

As explained in the introduction, research consistently indicates that jurors do not apply legal definitions of insanity and identifies prevalent negative attitudes toward the insanity defense that affect jurors' case judgments. Based on preexisting biases, "many people have a great deal of difficulty in accepting insanity as a meritorious defense" (State v. Harris, 1995, p. 542). As insanity defense cases invoke biases that are as powerful as those involved in the types of cases presented above, judges arguably should be required to routinely address jurors' insanity-relevant preconceptions and attitudes (see State v. Moore, 1991). Currently, they are not required to do so (112 American Law Reports [A.L.R.] 531–535, 1996; 28 A.L.R. Fed. 26 § 34a, 1996). In fact, the recent case law reflects a pattern in which judges refuse to inquire about bias against the insanity defense or even allow jurors who express biases to be impaneled (Penry v. State, 1995; Wellons v. State, 1995; for a review, see Perlin, 1994, p. 318). For example, in Boblett v. Commonwealth (1990), the Court of Appeals of Virginia upheld the trial court's refusal to remove for cause a juror who didn't "believe in" insanity and would require "overwhelming" evidence thereof: "I don't think I can acquit somebody on that" (p. 643). Even where judges address bias in insanity defense cases, their questioning is often perfunctory. For example, in U.S. v. Birdsell (1985), the Fifth Circuit held that the following questions posed by the trial court were adequate to discover any prejudice jurors had toward the insanity defense:

THE COURT: Is there anyone on the jury panel that has had any experience involving mental illness that would cause you to be other than fair and impartial on that issue if it is presented to you? In other words, could you decide that issue of sanity or insanity based on the evidence you hear and not be influenced on any outside experiences you may have had? All right. I take it by the lack of hands that you can. (p. 652; see also Brundage v. United States, 1966; United States v. Urbanis, 1974; cf. United States v. Allsup, 1977)
Such perfunctory questioning may be based partially on limited information about how to detect juror bias in insanity defense cases. Counsel often asks whether jurors have had any experience with mental health professionals or mentally ill individuals (e.g., U.S. v. Hardeman Jackson, 1976). Although most laypersons have little or no such personal experience, this clearly does not prevent them from forming strong preconceptions and attitudes based on information that they informally encounter in the media and elsewhere (for a review, see Wahl, 1995). Moreover, we found no systematic differences in jurors’ case-relevant attitudes or prototypes as a function of whether a juror knew someone who was mentally ill. In fact, our findings contradict some jury selection folklore about jurors’ demographic characteristics, which has “enduring currency among practicing trial attorneys” (Fulero & Penrod, 1990, p. 237). Specifically, women were more likely to have relatively conviction prone, MI-like prototypes, and highly educated men were more likely to have MSC-like prototypes and attitudes that were more in keeping with the law.

This research provides attorneys and judges with empirically based ideas about what sorts of attitudes and preconceptions to look for in order to identify bias at voir dire. If permitted, attorneys could administer (a) measures of attitudes toward the insanity defense (e.g., Hans, 1986; Roberts & Golding, 1991; Skeem, 1999) and the legal system (Kravitz et al., 1993); and (b) a questionnaire about prospective jurors’ conception of the “typical person who is not responsible for his criminal actions due to mental illness.” This questionnaire could be adapted from the Conception Checklist to focus more efficiently on the extent to which several key, discriminating characteristics of the SMD and MI prototypes are essential in defining prospective jurors’ conceptions of insanity.

Important distinguishing characteristics of the commonly held SMD prototype include (a) “extreme mental illness—TOTALLY debilitated,” (b) “mental retardation,” (c) “has a long, documented history of mental illness,” and (d) “mental illness cannot be controlled with therapy or medication” (see Table 4). According to this research, a juror who conceives of the criminally insane defendant as an obviously psychotic person with extremely low intelligence and sustained but unsuccessful contact with the mental health care system sets a “high hurdle” for issuing a verdict of insanity. Distinguishing characteristics of the MI prototype include (a) “has no conscience,” (b) “grossly distorted vision of reality,” (c) “violent, angry, and hostile to others,” (d) “exhibits extreme, erratic, unpredictable behavior,” and (e) “acts without reason, provocation, or rational motive,” and (f) “does not accept responsibility for his actions—feels that his actions are justified or that others are to blame” (see Table 5). A juror who expects the criminally insane defendant to exhibit strong underlying characteristics of psychopathy and periodically manifest irrational, unpredictable, violent behavior is also relatively unlikely to deem the typical defendant insane. Prospective jurors with MSC prototypes would be identified by their focus on mental state and evidentiary issues to the exclusion of these characteristics of a “wild beast” or “psychotic psychopath.”

Although improving the jury selection procedure to focus directly on preconceptions and attitudes may aid in addressing juror bias in insanity defense cases, there are two problems with relying solely on this approach, one conceptual and one practical. First, as implied by Justice Rehnquist in Lockhart, no juror is a
blank slate; each has experience-based prototypes, stereotypes, and attitudes that affect his or her legal decision making. Judge Stevens recognized in his dissent in *U.S. v. Thomas* (1972) that almost “every jury trial requires some compromise with standards of absolute perfection; such deviations must be tolerated if the jury system is to function effectively” (p. 1066). Thus, legal professionals must determine where to “set the bar” for labeling jurors’ preconceptions and attitudes as prejudicial and exercising challenges for cause and peremptory challenges. The purpose of peremptory challenges are to “eliminate extremes of impartiality on both sides . . . [and] to assure the parties that the jurors before whom they try the case will decide on the basis of the evidence before them, and not otherwise” (*Swain v. Alabama*, 1965). Eliminating extremely biased jurors on either side seems an appropriate strategy. However, when attorneys attempt to select jurors for partisanship, the representativeness of juries may be distorted. Because it has been deemed inappropriate to “rig” juries in this way, legal reformers have eliminated peremptory challenges in the system (Adler, 1994). In America, this issue is still a legal and ethical challenge.

Second, in addition to the issues involved in defining and excluding biased jurors, there are practical problems with relying on voir dire to address prejudicial preconceptions and attitudes. Only a minority (21%) of jurors have legally relevant prototypes of insanity that are tightly focused on the issue of impaired mental state at the time of the offense. It would be both impractical and inappropriate to exclude the 79% of jurors who have “wild beast”-like or “moral insanity”-like prototypes. First, because there are substantial individual differences in insanity prototypes, some jurors may have relatively benign variants of the “wild beast” or “moral insanity” prototypes. More important, automatically excluding such a large proportion of jurors would dramatically change the representativeness of the jury (which might be composed primarily of highly educated, male jurors). For these reasons, psycho-legal professionals are more likely to affect case judgments and reduce reliance on prejudicial knowledge structures by changing the way in which they present expert evidence on mental state at the time of the offense.

*Targeting Jurors’ Conceptions of Insanity When Presenting Expert Evidence*

Attorneys and expert witnesses may attempt to increase the fairness of insanity defense trials by focusing on the “real” definitions of insanity at play when presenting jurors with evidence about a defendant’s mental state. Although they have long been the subject of heated professional debate, legal tests of insanity make little difference to jurors, who produce similar verdict patterns regardless of (a) the specific legal definition of insanity they are instructed to apply and (b) whether or not they are provided with any legal definition of insanity (for reviews, see Finkel, 1995; Ogloff et al., 1992). For these reasons, focusing on subtleties of the wording and interpretation of an insanity defense statute during a trial is unlikely to be effective. Given that there are apparently no data on normative practice in the use of expert evidence in insanity defense cases, the extent to which attorneys assume this focus is unclear. Nevertheless, two options are available for addressing the extent to which a defendant matches the
JURORS' CONCEPTIONS OF INSANITY 609

predominant lay criteria of insanity in effect. These options are distinguished by the extent to which the facts of a given case fit these criteria.

**Case fits predominant prototype dimensions.** This research suggests that one should focus on two groups of characteristics in presenting evidence. First, in keeping with prior aggregate-based research (Ellsworth et al., 1984; Hans & Slater, 1984; Roberts et al., 1987), this research suggests that the prototype of insanity that is best represented on a jury is the SMD ("wild beast") prototype. Thus, in presenting expert evidence, one might focus on the critical characteristics of the SMD presented above. In addition to emphasizing the extremity of a defendant's psychosis and mental disability, one could also address the defendant's involvement with the mental health care system. Most jurors, particularly those with SMD prototypes, believe that defendants who refuse effective medication or therapy are responsible for their impaired mental state at the time of the offense and are therefore blameworthy for their crimes (Finkel, 1995; Skeem, 1999).

The second important group of characteristics on which to focus in presenting expert evidence is the overlapping characteristics important to all three insanity prototypes, including (a) "unable to discern right from wrong," (b) "not capable of understanding the harmful consequences of his actions," (c) "evaluated by a qualified mental health professional and diagnosed as mentally ill," (d) "impaired mental state is not the result of drug or alcohol abuse," (e) "cannot control his thoughts, emotions, or actions," (f) "is not aware of what he is doing," and (g) "suffers from schizophrenia or psychosis" (see Table 3). Again, regardless of their distinguishing features, each insanity prototype emphasizes psychosis and a range of mental state impairments.

According to prototype theory and research, as the number of features that the case shares with a category's prototype increases, so does the likelihood that the case is deemed a member of the category (e.g., Hampton, 1993; MacLaury, 1991; Rosch, 1975). V. Smith (1991, 1993) found that this principle applies to legal decision making; as the number of features that a case shares with a person's crime prototype increases, so does the likelihood that the defendant is deemed guilty of the crime, regardless of whether the case meets legal criteria for crimes. Although further research is needed to test the extent to which this is true of prototypes of insanity, it is likely that a jury is more apt to deem a defendant insane if he is shown to exhibit more of the features that jurors' conceptions of insanity share as well as characteristics of the predominant SMD prototype.

**Case does not fit predominant prototype dimensions.** Of course, the above strategy is not an option if the case facts do not match predominant prototype dimensions. In this case, one might directly target the prototype dimensions in an attempt to modify them. V. Smith (1993) found that prototypes of crime categories could be brought into greater accord with legal definitions, but only when they were specifically identified, refuted point-by-point, and revised. Reasoning strictly by analogy, one might attempt a similar strategy in insanity defense cases.

For example, consider a functional defendant who delusionally believes that a disc jockey has been terrorizing him for months by stalking him and broadcasting threatening messages about him, and carefully executes a plan to buy a gun and shoot the disc jockey. This defendant does not match some of the primary overlapping characteristics across prototype groups, and he clearly does not.
resonate with the “wild beast” prototype. In presenting this case, an expert may contrast these prototype dimensions with a straightforward description of important statutory criteria. Of course, the contours of this presentation depend on how a given case relates to a specific statute. Targeting a key contrast between the SMD prototype and the above case in a jurisdiction with ALI (1962) criteria, an expert may note, for example, that:

Many people believe that insane defendants are completely debilitated by mental illness and retardation—that they are so impaired that they could not possibly plan and carry out a complex course of action. However, according to our statute, it is not necessary for a defendant to be totally disabled by a mental illness. In fact, a person can be insane even if he is capable of planning an offense. The statute requires only that a defendant be unable, because of mental illness, “to appreciate the criminality of his conduct” (ALI, 1962, p. 74) or “to conform his conduct to the requirements of the law” (p. 74). This defendant’s ability to form criminal intent was compromised by his delusional belief that he was being stalked and persecuted.

Limitations and Directions for Future Research

Fully Replicating the Results

In this study, the three identified groups of jurors with different prototypes were replicated across juror subsamples and validated on external variables, including case judgments, case-related attitudes, and demographic characteristics. In addition, the jurors who participated in the study were quite representative of the jury pool in Utah. However, as is the case with any study, further research is needed to determine whether these jurors’ prototypes represent those of jurors in other states.34

Nevertheless, preliminary data suggest that the jurors in this study share insanity conceptions and attitudes with jurors in other jurisdictions. First, the verdict pattern obtained in this research was remarkably similar to that found in a prior study that used an almost identical case vignette in Illinois (Roberts et al., 1987). Second, the pattern of responses to items that assessed attitudes toward the insanity defense was similar to that obtained in research with laypeople in other states (e.g., Hans, 1986; Roberts et al., 1987; Roberts & Golding, 1991). Third, and most important, the prototypes identified in this study are consistent with historical conceptions of insanity as well as contemporary research conducted in several other jurisdictions.

To resolve this issue, further research must replicate the results of this study with independent samples of jurors drawn from other populations. This study suggests that replication studies should be conducted with the population of

34One may question whether the results are idiosyncratic to Utah, given that it is one of the few states to have fully abolished the insanity defense. However, following John Hinckley’s acquittal, most states revised their insanity defense laws to decrease the likelihood of an acquittal (see above). Moreover, past research suggests that the public is unlikely to be familiar with insanity defense criteria in general (Hans & Slater, 1984), let alone the specific insanity defense laws that are active in their jurisdiction. Finally, as explained in the text, this sample produced verdict patterns and endorsed insanity defense attitudes that are highly similar to those of jurors studied in other states.
interest, that is, jurors rather than undergraduate students. That the three prototype groups, but not the external validation of the groups, were replicated with undergraduates in this study may indicate that the measure of prototypes designed inductively for jurors may not adequately represent undergraduate's conceptions of insanity. If this is the case, the results reflect an inability to generalize the nature and effect of jurors' prototypes to undergraduates rather than an inability to replicate the study per se. Regardless of the explanation, jurors are clearly the most relevant sample to study to formally resolve the replication issue.

Formally Testing the "Prototypicality" of Conceptions of Insanity and of Legal Bias

This research did not formally test whether jurors' conceptions of insanity are prototypes that affect their case judgments through a prototype matching process. In fact, this research was designed to provide the groundwork for rigorously testing these hypotheses. Future research will examine whether the conceptions of insanity identified in this study manifest typicality effects characteristic of prototypes and will develop vignette studies to target specifically these prototypes to determine whether verdicts are based on a prototype matching process (see V. Smith, 1993; cf. English & Sales, 1997; Finkel, 1997). In future experiments, vignettes will be created specifically to portray defendants that share an increasing number of features with a juror's conception of insanity. If the conception is a prototype and drives verdicts on the basis of a prototype matching process, defendants who share an increasing number of features with a juror's prototype should be increasingly rated as typical of the category "insane" and should be increasingly likely to be acquitted by reason of insanity (see V. Smith, 1991, 1993; cf. English & Sales, 1997).

To describe more formally prototype-based biases, researchers also should investigate the extent to which those with SMD and MI prototypes are more likely to deem defendants who meet legal criteria for insanity guilty than those with MSC prototypes.

Using More Realistic Trial Materials and Procedures

This study, being focused on individual differences, emphasized juror decision making rather than jury decision making. However, because juror's initial votes strongly predict their postdeliberation verdicts (Sandys & Dillehay, 1995), studies of juror decision making may also be informative with respect to jury decision making.

Future studies should present trial evidence in a more realistic fashion than the brief, written vignette used in this study. Presenting opposing evidence in a trial-like format may better ensure that the knowledge-driven verdicts are not partially based on the presentation of incomplete evidence that precludes more data-driven verdicts. As explained in the next section, however, presenting evidence in a more realistic, complex format may paradoxically lead jurors to rely more heavily on their knowledge structures.
Developing a Theory for Understanding Prototypes in Their Intrapsychic and Courtroom Contexts

Jurors bring to the courtroom a variety of knowledge structures that affect their verdicts. These include attitudes toward case-relevant issues (Cutler et al., 1992; Moran et al., 1994; Roberts et al., 1987; Roberts & Golding, 1991), prototypes of crimes (V. Smith, 1991; Stalans, 1993), conceptions or prototypes of insanity, and “episode schemata,” or experience-based knowledge about events (Pennington & Hastie, 1986). Although it is clear that jurors’ sociocognitive structures affect their case judgments, no overarching theory describes how this takes place. Pennington and Hastie’s (1986; 1992; see also Bennett & Feldman, 1981) “Story Model” is arguably still the benchmark theory on jury decision making. According to this model, jurors arrive at verdicts by constructing a story about what happened during an alleged crime based on the evidence and their episode schemata or world knowledge about similar events. Jurors then compare this story to lists of criteria they generate for each verdict category based on legal instructions and select the verdict category that best matches their story. Although appealing in its generality, the published versions of this model do not account specifically for how influential story “ingredients” such as prototypes, attitudes, and schemas are embedded in, or determine the nature of, the stories constructed and the process by which they affect verdicts (Finkel, 1995; V. Smith, 1991).

Prototype theory paints a somewhat different picture of juror decision making than the Story Model. According to this theory, jurors compare the evidence in a case with their knowledge about case-relevant categories, with the degree of match between the case and the jurors’ prototypes determining their verdicts. Although this theory accounts more directly for jurors’ prototypes and the process by which they affect verdicts, it does not account for the complexity of knowledge structures evoked by actual legal cases. Prototypes and schemata of relevant crimes, actors, and events are likely to be activated, and each of these is likely to interact with case-relevant attitudes. How does one describe the structure and potentially causal relations among constructs such as prototypes, attitudes, and episode schemata, and how do they affect verdicts? A unifying theory is needed to inform future research and promote greater understanding of jury decision making. Contemporary, complex models of constructive cognition, including connectionist and network models (see Way, 1997), may provide leads for developing such a theory.

To be most applicable to real legal settings, these models must include key “Courtroom Process” factors that may strongly influence jurors’ decision making but are rarely studied. From the first summons to appear in a venire, through the voir dire process of watching others being interrogated and being interrogated oneself, through opening statements and presentation of complex expert testimony...

35 Although a reviewer for this article asserted that the prototype model could be subsumed under the Story Model as an example of world knowledge, the published versions of the model (that we have found) do not explicitly address prototypes or the overarching issues raised here. For example, how does the prototype matching process “work” within the more general Story–Verdict matching process? Although the Story Model could become a more “unifying theory” (see below), it may require further elaboration in order to do so.
by both sides, through being instructed by the judge (as “gatekeeper” of evidence) to ignore seemingly crucial pieces of information and apply the law, the judicial system seeks to inculcate a particular role and mind-set in a juror. The effect of this mind-set is unknown. However, one unintended consequence of this process may be that jurors feel uncertain, stressed, and hypersensitive to particular types of information. Under these realistic conditions, jurors may be inclined to rely predominately on their existing preconceptions, attitudes, and cognitive rules of thumb (see Cooper, Bennett, & Sukel, 1996). This clearly is a rich topic in need of further scholarly attention, theory, and research.

References


Regina v. M’Naghten, 10 Cl. and Fin. 200, 8 Eng. Rep. 718 (1843).


Appendix

Insanity Case Vignette

Michael Jones, age 43, worked as a mail carrier for the past 10 years in a western city. It was his custom to stop for lunch at McCafferty’s Tavern, where he would have a hamburger and a beer. He would leave through the back door by the kitchen because it was the most convenient exit as he continued his mail route. At 1:15 p.m. on August 21, 1997, Jones was found dead in the alley behind the tavern. The medical examiner’s report indicated that he had bled to death after suffering a single stab wound through his upper left chest and heart.

The defendant, Jeffrey Smith, age 24, was a dishwasher at the tavern. Eyewitnesses reported that the defendant left his post shortly after Jones had finished lunch and paid his tab. The defendant had been washing dishes and suddenly left, leaving the water tap running. The defendant was arrested 2 blocks from the tavern after a patrol officer noticed him carrying a U.S. Mail pouch. Upon arrest, he was found to have a 5-inch, blood-stained carving knife in his possession. This knife was established as the murder weapon by
blood-type matching, and it had the defendant’s fingerprints on the handle and blade. Testimony established that the knife was from the tavern’s kitchen.

A court-appointed psychologist and a psychiatrist examined the defendant. Their reports and testimony were in agreement and indicated that the defendant had been socially isolated for many years. During his senior year of high school, he withdrew from his peers and his school performance deteriorated severely. After high school, he supported himself with menial jobs and public assistance. The defendant usually looked unkempt and disheveled. His speech tended to be vague and rambling. The connection among his ideas was difficult to follow and he often gave irrelevant replies to questions. He was convinced that a group of aliens was conspiring to take over the world. He believed that they had been shooting “zylon rays” at his brain in an effort to control him. They planned to abduct him and study his brain in order to improve their techniques of mental control. To conduct their studies unnoticed, these aliens disguised themselves as “government men” (e.g., officials from the FBI, CIA, IRS, and Postal Service). They intended to complete their studies, perfect their techniques of mental control, then use these techniques to take over the world and all of its inhabitants.