Attitudes Toward the Insanity Defense: Examination of the Factor Structure of Insanity Defense Attitude-Revised (IDA-R) Scale in Ghana

Samuel Adjorlolo, Inusah Abdul-Nasiru, Heng Choon (Oliver) Chan & Francis Bentum Jr.


To link to this article: https://doi.org/10.1080/14999013.2016.1235628

Published online: 14 Nov 2016.

Submit your article to this journal

Article views: 274

View Crossmark data
Attitudes Toward the Insanity Defense: Examination of the Factor Structure of Insanity Defense Attitude-Revised (IDA-R) Scale in Ghana

Samuel Adjorlolo, Inusah Abdul-Nasiru, Heng Choon (Oliver) Chan, and Francis Bentum Jr.

Department of Applied Social Sciences, City University of Hong Kong, Kowloon, Hong Kong, SAR; Department of Psychology, School of Social Sciences, University of Ghana, Accra, Ghana

ABSTRACT
Decades of research have revealed the potential of individuals to be partial toward defendants pleading insanity at the time of offense. This study examines the internal structure of the Insanity Defense Attitude-Revised (IDA-R) scale as well as predictors of insanity defense attitude in a Ghanaian sample (N = 253). Using principal component analysis, we identified three distinct latent factors, two (i.e., strict liability, unprofessional behavior and safety concerns) of which corroborate the findings of previous studies, and a unique factor-expression of sympathy. Participants who were highly involved in religious activities were more likely to be sympathetic. Views regarding the causes and treatability of mental illness did not significantly predict insanity defense attitudes.

KEYWORDS
Insanity defense attitude; juror bias; scale; factor structure; Ghana; Africa

Introduction
Across many jurisdictions, jurors are empaneled to make decisions and deliver verdicts in a wide range of criminal cases. The insanity defense is one such trial involving jurors whereby the central and the most salient focus is the defendant’s mental state at the time of crime rather than whether or not a crime has been committed (Adjorlolo, Chan, & Agboli, 2016; Butler, 2006; Zhao & Ferguson, 2013). In the United States, the public has criticized acquittals based on the insanity defense, especially in high profile cases such as John Hinckley’s attempted assassination of former U.S. president, Ronald Reagan (see Costanzo & Krauss, 2012; Zapf, Golding, Roesch, & Pirelli, 2014). Unsurprisingly, studies conducted in the United States reported that the public is misinformed about the insanity defense (e.g., the defense is overused) and also held negative attitudes toward the defense (e.g., the defense is a loophole in the law to free many guilty criminals; see Skeem, Eno Louden, & Evans, 2004). These negative attitudes and misinformation can influence jurors’ ability to render impartial judgments.

The insanity defense in Ghana
Ghana ceased to be a British colony after becoming the first Sub-Saharan African country to gain independence on March 6, 1957. As a result of the historical ties, the legislations and the judicial practices in Ghana are primarily influenced by the British enactments and practices. In this regard, the insanity defense law in Ghana is partly mirrored after the M’Naughton Rules promulgated in 1843 by the House of Lords in England (see Adjorlolo et al., 2016, for a review). According to section 27 of the Criminal Offences Act, 1960 (Act 29), a person can raise the insanity defense

(A) if that person was prevented, by reason of idiocy, imbecility, or a mental derangement or disease affecting the mind, from knowing the nature or consequences of the act in respect of which that person is accused or, (B)
if that person did the act in respect of which that person is accused under the influence of an insane delusion of a nature that renders that person, in the opinion of the jury or of the Court, an unfit subject for punishment in respect of that act.

Critical to the adjudication process are reports of defendants’ mental states at the time of the crime. Specifically, the presiding judge/magistrate is mandated by Section 137 of the Criminal and Other Offences (Procedure) Act, 1960 (Act 30) to request for mental state examination whenever the insanity defense is raised. The evaluator, normally a psychiatrist, with recourse to all the available evidence, including mental state examination and collateral sources of information, shall furnish the Court with the evaluation report (for discussions on mental state assessment in Ghana, see Adjorlolo, Agboli, & Chan, 2015). The Court in Kwadwo Mensah vs. The Republic (1959) addressed the ultimate issue by stating that it is not the responsibility of a medical expert to decide the issue of insanity. It is an issue of fact that must be determined by the court (i.e., by a jury, judge or a magistrate). According to Section 204 of the Criminal Procedure Act 30, all trials on indictment shall be undertaken by a jury or, a judge or magistrate with the help of assessors, while summary offenses (e.g., misdemeanors) will be tried by a judge/magistrate. It should be noted, however, that this arrangement is regardless of whether the defendant is supposedly mentally incapacitated at the time of the offense. The mere presence of mental illness or psychological disorder at the time of offense may not provide sufficient basis for acquittals based on the insanity defense. Although the defendant has the burden of proof, the standard of proof in establishing the defense is based on a balance of probabilities which is lower than what the prosecution bears (Mensa-Bonsu, 2001). If a jury or judge or magistrate is satisfied with evidence adduced at trial and convinced that a defendant meets the legal requirement of the insanity defense, a “special verdict,” guilty but insane, is returned.

The disposition associated with the special verdict is commitment for treatment as a “criminal lunatic” (i.e., an offender with mental illness) at one of the three public mental health institutions, namely Accra Psychiatric Hospital, Pantang Mental Hospital, and Ankaful Psychiatric Hospital. Criminal lunatics broadly refer to insanity acquittees and defendants found incompetent to stand trial. According to Section 76 (7) of the recently promulgated Mental Health Act, 2012 (Act 846), a criminal lunatic who “is found no longer to have mental disorder, or is no longer in need of in-patient treatment shall be discharged if the offence is a minor offence otherwise a report shall be made to the court for further directive” (p. 34). It is also interesting to note that there is no legally mandated duration of hospitalization for criminal lunatics. That is, they can be hospitalized as long they pose threats to themselves and/or to the public (for review see Adjorlolo et al., 2015, 2016; Adjorlolo, Abdul-Nasiru, Chan & Bambi, 2016).

Legal decision makers, specifically jurors, like any other individuals, have stores of knowledge and varied experiences about life events that may impact significantly on their judgments. In view of potential juror bias, the judicial systems in Ghana (see Mensa-Bonsu, 2009) and in other jurisdictions (e.g., the United States; Eno Louden & Skeem, 2007; Skeem et al., 2004) have instituted some procedural safeguards that are supposedly intended to ensure that jurors start their duty with a clean, pure, and uncorrupt mind (i.e., blank slates). One such safeguard is the voir dire, which is a procedure that is normally conducted before a jury is empaneled. The rationale for this procedure is to screen, identify and possibly exclude jurors with attitudes and behaviors that might compromise the sanctity of the judicial outcome (e.g., verdict). The judicial system largely expects that jurors will arrive at legally appropriate judgment and verdict through fair and comprehensive evaluation of the evidence adduced at trial (Eno Louden & Skeem, 2007). Although the voir dire is recognized as a very important stage in trials involving jurors (Dayan, Mahler, & Widenhouse Jr., 1989), there are some challenges that can compromise the very essence of the process (see Bloechl et al., 2007; Skeem et al., 2004).

First, given that judges have broad discretion and are also restricted to specific procedures in many cases, there is the tendency that they may focus narrowly on one area of the process and in consequence conduct “streamlined” voir dire. For instance, where the judges exercise substantial control over juror questioning with less contributions from the attorneys, there is the tendency that the process may not be comprehensive enough to reveal potential biased jurors. Second, where attorneys are involved, they are also more likely to base their decision making on demographic and attitudinal variables that may not well predict juror bias. As a result, juror bias may go undetected. Granted the above, there is the possibility that some jurors commence the criminal adjudication process with a prejudiced mindset (negative attitudes) and so their decision making process may not be fair.

The negative attitudes among jurors toward the insanity defense (Vitacco et al., 2009) partly suggest that many insane defendants may have been processed via the criminal justice system. This may contribute to the overrepresentation of mentally disordered offenders in the criminal justice system, a phenomenon which is currently acknowledged as a public health concern (Lurigio,
Empirical evidence suggests that mock jurors rarely render verdicts by basing their decisions solely on the applicable legal standards (Eno Louden & Skeem, 2007), and instructions provided by the judges (Finkel & Handel, 1988; Peters & Lecci, 2012). In Ghana, the non-adherence to instructions by jurors was one of the numerous reasons that have necessitated the incessant calls by some judges for Parliament to abolish the jury system. In one such appeal, a High Court Justice, Justice Efo Kosi-Kaglo, averred that the jurors are not well educated or well informed to comprehend the legality of issues raised and to ensure justice was delivered in most criminal cases. However, due to the prescription and ethos of the legal system in Ghana, the judges or magistrates are bound by the decisions of judgments of the juries (see Ghanaweb, 2011).

In view of the tendency of jurors to form their legal opinions without adhering to the instructions provided by the presiding judges, the resonating question relates to the factors influencing juror decision making. Empirical studies conducted over the years have consistently implicated several extra-legal factors that purportedly affect (mock) juror verdicts (e.g., Bloechl, Vitacco, Neumann, & Erickson, 2007; Breheney, Groscup, & Galietta, 2007; Butler, 2006; Butler & Wasserman, 2006; Kivisto & Swan, 2011; Eno Louden & Skeem, 2007; Peters & Lecci, 2012; Skeem & Golding, 2001; Skeem et al., 2004; Sloat & Frierson, 2005). Illustrating briefly, misconceptions about the insanity defense (e.g., the defense is overused) has been found to correlate negatively with the attitudes toward the defense (Bloechl et al., 2007), and also affected negatively jurors adherence to the instructions provided by a judge (Peters & Lecci, 2012). Authoritarianism significantly predicted mock jurors’ decision making such that jurors high in the construct were more likely to perceive defendants as culpable and more likely to convict them (Narby, Cutler, & Moran, 1993). With regard to gender, females, compared to males, have been reported to be more lenient in perceiving defendants as mentally or psychologically ill (Breheney et al., 2007), and were also more willing to acquit based on the insanity verdict (i.e., not guilty by reason of insanity; Finkel & Handel, 1988). Demographic and background variables such as political conservativism, religious fundamentalism, and low educational level negatively correlated with attitudes toward the insanity defense (Kivisto & Swan, 2011; Sloat & Frierson, 2005).

It is plausible that a defendant pleading insanity may not receive a fair trial if some of the jurors adjudicating the case are already biased. Unfortunately, the limitations of the voir dire process, as noted earlier, make it quite challenging to identify potential biased jurors. Additionally, in Ghana, it is not uncommon for many defendants to be ill-represented during criminal proceedings because of poverty and high cost of legal charges which impede hiring of a motivated attorney (Adjorlolo, 2016). As a result, the contribution of the defense attorneys in detecting biased jurors remains questionable. These developments provide the impetus to measure validly and accurately attitudes towards the insanity defense. Given that attitudes are likely to predict real-life behaviors (Kong, Zhang, & Chen, 2013), measures of attitudes toward the insanity defense can be added to the gamut of resources available for screening and identifying jurors whose verdicts are likely to be predicted (i.e., partial legal decision makers). Particularly, given the increasing use of technology for forensic practices, these measures can be easily administered via computerized assessment and the results generated automatically for interpretations using decision support system (see Adjorlolo, 2015; Adjorlolo & Chan, 2015a). In a nutshell, screening for potential jurors’ attitudes toward the insanity defense to either exclude them from trials or adopt measures to bring their decision making to conform to the law is one of the best ways to ensure unbiased and fair trials.

**Attitudes toward the insanity defense: The insanity defense attitude-revised scale**

As far back as the 1980s, researchers have been interested in measuring attitudes toward the insanity defense by employing single evaluative questions (e.g., Homant & Kennedy, 1987; Jeffrey & Pasewark, 1983). However, there are concerns that these evaluative questions were prone to errors, and may not adequately and appropriately measure attitudes toward the insanity defense (see Skeem et al., 2004). Moreover, the multiple-item measures (e.g., Insanity Defense Support Scale; Hans, 1986) have questionable psychometric properties that limit their utility (Skeem et al., 2004).

Skeem and Golding (2001) conducted a study in which they sought to develop the insanity defense attitudes (IDA) scale. The authors identified two distinct factors: strict liability-reduced capacity and perceived injustice and danger. In a subsequent study, Skeem et al. (2004) revised the IDA in three independent studies. The revised scale, known as the Insanity Defense Attitudes-Revised (IDA-R) scale, consisted of 19 items and three general opinion items. A principal component analysis (PCA) revealed two factors that were consistent with those found by Skeem and Golding (2001); strict liability, and injustice and danger. These factors were subsequently confirmed in a confirmatory factor analysis (CFA). The strict liability factor reflects the extent to which a juror believes that mental illness can bring about reduced capacity for rational decision making in relation...
to criminal activities (e.g., a defendant’s degree of insanity is irrelevant: if he commits the crime, then he should do the time). The injustice and danger factor, on the other hand, illustrates the degree to which a juror believes that the insanity defense is misused or posed a threat to public safety (e.g., the insanity defense returns disturbed, dangerous people to the streets). The internal consistency of the strict liability and injustice and danger subscales were .68 and .88, respectively. Although the authors tentatively concluded that the IDA-R has a two-factor structure, they cautioned that “it is possible that a dimension was under-represented and not identified”... “in fact, it is possible that the IDA-R does not possess a two-factor structure” (p. 643).

A major concern with the IDA-R is that it has only two unique items on the injustice and danger factor, and only three unique items on the strict liability factor. The high number of cross-loadings conceivably threatens and weakens the scale’s discriminant and construct validities. To overcome this limitation, Vitacco et al. (2009) subjected the 19-item IDA-R scale to CFA and found that two factors fit the data. These include strict liability, as discussed above, and unprofessional behavior and safety concern. This new factor represents the notion that professionals (i.e., attorneys and mental health professionals) will do everything possible to ensure offenders pleading insanity at the time of offense escape from punishment. It further assesses the danger and threat posed to communities by insanity acquittees upon release (e.g., many of the crazy criminals that psychiatrists see fit to return to the streets go on to kill again). In summary, Vitacco et al.’s (2009) finding has indicated that the initial two-factors of the IDA-R revealed by Skeem et al. (2004) may not be consistent and stable. Additionally, it is unclear or yet to be illuminated whether the IDA-R possesses more than two factors, and also whether cross-cultural studies will confirm these earlier findings.

The present study

A notable strength of the IDA-R is its ability to screen for attitudes toward the insanity defense in general (see Bloch et al., 2007; Vitacco et al., 2009), making the scale applicable in (common law) jurisdictions (e.g., Ghana) with insanity defense legislation. Presently, there is no cross-cultural study, specifically from Sub-Saharan Africa, that has been conducted to ascertain the relevance of the items comprising the IDA-R. The obvious cultural differences between the United States and Sub-Saharan African countries, including Ghana, make it appropriate to examine whether a measure of legal bias developed in the former could be relevant in the latter. For example, the extent of public interests in and discussion of the defense in the U.S., compared to Ghana, as well as the extent of stigmatization of mental illness in Ghana and in other African countries (Barke, Nyarko, & Klecha, 2011; Omar et al., 2010) can result in differences in insanity defense attitudes between these countries. Likewise, the high involvement of Ghanaians in religion and religious activities may affect attitudes toward the insanity defense (Akotia, Knizek, Kinyanda, & Hjelmeland, 2013; Osafo, Knizek, Akotia, & Hjelmeland, 2013).

The present study, therefore, has two main objectives. First, the study investigates the latent structure of the IDA-R in Ghana. In addition, the study elucidates whether culturally framed views pertaining to the causation (e.g., mental illness is caused by demons, witches) and treatment of mental illness (e.g., treatment by spiritualists) as well as religious commitment are predictive of attitudes toward the insanity defense. Investigating the internal structure of the IDA-R and the socio-cultural factors likely to influence attitudes toward the insanity defense can be helpful in screening and selecting jurors who can commence the adjudication process without or with minimal bias, stereotypes, and prejudices. Additionally, this study has the propensity to deepen cross-cultural understanding of attitudes toward the insanity defense.

Method

Participants

Data were collected from a sample of 253 university undergraduate degree students. There were about 44% (n = 110) males and 56% (n = 143) females; 79% (n = 200) of the participants aged from 20–30 years, while 21% (n = 53) were 31 years and above. The majority (n = 231, 91%) of the participants professed Christian faith, while 9% (n = 22) reported practicing Islam faith. This reflects the national data on religious practice where the majority professed the Christian faith (Ghana Statistical Services; GSS, 2012). About 96% (N = 244) of the participants were unmarried, while 4% (N = 9) were married.

Research design and procedure

A cross-sectional survey and self-report methodology was used to gather data for the study. The participants were recruited at tutorial sessions in psychology courses where they were informed and invited to participate in the ongoing study. Informed consent was obtained from those who expressed willingness and interest to
participate in the study. Participation was strictly voluntary and no incentive was provided.

Each participant was provided with a questionnaire pack containing a case vignette of a murder suspect pleading insanity at the time of offense and the following measures: Insanity Defense Attitudes-Revised (Skeem et al., 2004), the Religious Commitment Inventory (Worthington Jr. et al., 2003), and measures of causation and treatment of mental illness.

As there has never been a high profile case involving acquittals based on the insanity defense or the defense has not been publicly discussed in Ghana prior to the data collection, there is the possibility that many Ghanaians, including the participants, have no knowledge of its existence and the disposition of the acquittees following a successful insanity plea. This starkly contrasts with the situation in the U.S. where acquittals based on the insanity defense are supposedly common knowledge. Thus, to ensure a fair comparison, we designed a case vignette based on one of the insanity defense cases decided by the courts in Ghana (see Collins vs The Republic, 1987).

Briefly, in this case, the defendant (i.e., Collins), accused of committing murder, was found guilty but insane and committed to mandatory treatment. The study received ethical approval from the Institutional Review Board at Noguchi Memorial Institute for Medical Research.

**Instruments**

**Attitudes toward the Insanity Defense-Revised** (IDA-R; Skeem et al., 2004). The 19-item scale is originally scored on a 7-point Likert scale, ranging from 1 meaning strongly disagree to 7 meaning strongly agree. The present study, however, adopted a five-point Likert response format (strongly disagree, disagree, neutral, agree, and strongly agree). The Cronbach’s alpha of the IDR-R in the present study was .80 (see below for detailed descriptions).

**The Religious Commitment Inventory** (RCI; Worthington Jr. et al., 2003). The RCI is a 10-item scale that measures the degree to which a person is involved in religious activities (e.g., pray). The RCI is a 5-point Likert-type response scale ranging from not at all true of me (1) to totally true of me (5). Sample items include: Religious beliefs influence all my dealings in life. Scores range from 10 (lowest) to 50 (highest), with high scores reflecting high religious commitment. The RCI showed a good internal consistency (Cronbach’s alpha = .86) in the present study.

**Causation and treatment of mental illness**

The participants’ views about the causes (three items) as well as the treatability or treatment alternatives (three items) of mental illness were examined using the following response options: Disagree, Not sure, and Agree. The “Not sure” was chosen to reflect the fact that not all the participants may be certain (i.e., Disagree or Agree) as to the causes or treatability of mental illness. The questions relating to the causes include; (1) mental illness is caused by psychosocial factors such as substance abuse (e.g., marijuana), family problems, and life stressors; (2) mental illness is caused by biological factors such as inheritance (genetics), brain injury; and (3) mental illness is caused by supernatural forces such as demons, witchcrafts, or evil spirits. The questions concerning treatment include: (1) mental illness is curable; (2) mental patients should be treated at the psychiatric hospital; and finally (3) mental patients should be treated by spiritual people (pastors, herbalists, traditionalists). The questions regarding “supernatural forces” and “spiritual people” were chosen to illustrate the traditional worldview of Ghanaians regarding the potency of supernatural forces and spiritualists in causing and treating mental illness respectively (Nukanuya, 2003). All the questions were treated as single questions and so were not summed to generate any specific scale.

**Data analytic strategy**

All data were analyzed using SPSS version 21 (IBM corp), and a two-tailed statistical significance was set at .05, unless otherwise indicated. Data normality assumption was assessed with the Shapiro-Wilk test, which indicated normality ($p > 0.05$). Series of statistical analyses were computed.

First, confirmatory factor analyses (CFAs) were performed to confirm whether the dimensions of the IDA-R reported by previous studies in the U.S. fit the data from Ghana. We performed maximum likelihood CFA using AMOS program version 22 (Arbuckle, 2011). Given that there are different fit indicators addressing different issues, we reported Comparative Fit index (CFI), Tucker Lewis Index (TLI), and a noncentrality-based index: Root Mean Square Error of Approximation (RMSEA). These fit indicators were chosen for consistency with the CFA literature in general and in particular with the previous IDA-R validation studies (i.e., Skeem et al., 2004; Vitacco et al., 2009). Both CFI and TLI indicators range from 0 for a poor fit to 1 for a good fit. As there is no consensus regarding the value(s) indicating a model fit, we adopted Hu and Bentler’s (1999) rule of thumb. Accordingly, a value close to .95, or greater, indicates reasonable fit for both CFI and TLI. A RMSEA value close to .06 or below is considered to also indicate a good fit between the hypothesized model and the observed model. Chi-square result was also reported, with significant value.
(i.e., $p < .05$) indicating poor model fit. Although one or two fit indicators may suggest model fit as reported by previous studies, a model is said to fit the data granted that all the indicators (CFI, TLI, and RMSEA) reached or surpassed the minimum threshold, in addition to a non-significant chi-square value, although this can be influenced by the sample size. This in accordance with current conventions (Fields et al., 2015).

Secondly, because the previous models provided poor fit for the present data, principal component analysis (PCA) was used to examine the latent dimensions of the IDA-R in Ghana. Orthogonal rotation (varimax) was used to generate the component scores. This rotation was preferred since it produces independent component scores that were used for further analyses. When item 12 (i.e., perfectly sane killers can get away with their crimes by hiring high-priced lawyers and experts who misuse the insanity defense) was included in the analysis, the factors that emerged lack conceptual meaning. Consequently, a decision was reached to drop this item, leaving 18 items for the PCA.1

Third, multivariate analysis of variance (MANOVA) was used to investigate the effects of gender (male and female), age (20–30 years, and 31 years and above), and religious commitment on attitudes toward the insanity defense. A Bonferroni-adjusted univariate analysis of variance (ANOVA), with significance level at 0.012 (0.05/4), was used as a follow-up on the significant MANOVA results. Effect sizes were estimated with partial eta squared ($\eta^2$).

Lastly, a multiple linear regression was performed to predict attitudes toward insanity defense from the views of the causes and treatability of mental illness, as well as religious commitment. The participants’ views on the causation and treatability of mental illness were treated as categorical predictors with three levels (i.e., agree, not sure, and disagree) and subsequently dummy coded. The “not sure” was used as the reference group (0) to which all other groups, coded as 1, were compared. That is, we compared whether those who responded “agree” or “disagree” differ significantly in their attitudes from those who were “not sure.”

### Results

**Structure of the IDA-R: Confirmatory Factor Analysis (CFA)**

First, we examined whether Skeem et al.’s (2004) strict liability and injustice and danger scale provide good fit to the data. The significant chi-square, $\chi^2$ (151) = 276.37, $p < .001$, suggested that the model did not fit the data. Inspection of the fitness indicators revealed that the TLI of .81 and the CFI of .85 fell below the fitness threshold recommended by Hu and Bentler (1999). In contrast, the RMSEA of .057 suggested a good model fit. Notwithstanding the poor fit, it was observed that all the items significantly loaded on the latent factors, with standardized factor loadings ranging from .23 (item 16) to .65 (item 6) for the injustice and danger factor. The loadings on the strict liability factor also ranged from .16 (item 3) to .68 (item 14; see Table 1 for items used of the IDA-R scale). An examination of the modification indices (MI = 69.21) indicated that the model fit could be improved by allowing the unique variances of item 11 and item 12 to correlate freely. After adding this parameter, the model improved [chi-square, $\chi^2$ (150) = 263.02, $p < .001$]. Although the RMSEA (.050) suggested adequate model fit, the other fit indices, namely TLI (.86) and CFI (.85), were comparatively low. Moreover, because the above model is data-driven, its emergence in similar or related samples is questionable (see MacCallum, Roznowski, & Necowitz, 1992). Therefore, in line with current conventions emphasizing the adequacy of several fit indices (Fields et al., 2015), we tentatively conclude that the strict liability, and injustice and danger factors identified by Skeem et al. (2004) did not adequately fit the present data according to Hu and Bentler’s (1999) fit threshold. It should be noted that Skeem et al.’s (2004) acceptance of the 2-factor model fit was based on similar findings above. That is, the CFI and the TLI were not up to the minimum fit threshold, and RMSEA of .09 was interpreted as indicating adequate fit.

With respect to Vitacco et al.’s (2009) factors, our analysis revealed significant chi-square statistic, $\chi^2$ (149) = 125.15, $p < .001$. Only the CFI (i.e., .90) suggests adequate model fit, while the TLI of .86 and RMSEA of .06 do not indicate good model fit. The individual items, however, loaded on the latent factors, with standardized factor loadings ranging from .29 (item 12) to .65 (item 11) on the unprofessional behavior and safety concern factor, and from .44 (item 4) to .66 (item 1) on the strict liability. This said, given the result of the fit indices, we concluded that Vitacco et al.’s (2009) unprofessional behavior and safety concern, and strict liability factors did not fit the data from Ghana. The above findings suggested that the internal structure of the IDA-R scale identified in samples from the U.S. may not be able to fully account for insanity defense attitudes in Ghana.

1 We performed additional CFAs to determine the fit of Skeem et al. (2004) and Vitacco et al.’s (2009) models by removing item 12 given that it proved problematic for the EFA. The results showed slight improvements in the fit indices, especially for Vitacco et al.’s (2008) models, however, they did not reach the acceptable fit threshold.
Table 1. Factor loadings for principal component analysis with varimax rotation of IDA-R.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Items</th>
<th>Strict Liability</th>
<th>Unprofessional Behavior and Safety Concerns</th>
<th>Expression of Sympathy</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>We should punish people who commit criminal acts, regardless of their degree of mental disturbance.</td>
<td>.73</td>
<td>.07</td>
<td>.23</td>
</tr>
<tr>
<td>1</td>
<td>I believe that people should be held responsible for their actions no matter what their mental condition.</td>
<td>.68</td>
<td>.24</td>
<td>.11</td>
</tr>
<tr>
<td>10</td>
<td>Mentally ill defendants who plead insanity have failed to exert enough willpower to behave properly like the rest of us. So, they should be punished for their crimes like everyone else.</td>
<td>.62</td>
<td>.22</td>
<td>.16</td>
</tr>
<tr>
<td>4</td>
<td>I believe that all human beings know what they are doing and have the power to control themselves.</td>
<td>.59</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>8</td>
<td>A defendant's degree of insanity is irrelevant: if he commits the crime, then he should do the time.</td>
<td>.56</td>
<td>.16</td>
<td>.14</td>
</tr>
<tr>
<td>19</td>
<td>With slick attorneys and a sad story, any criminal can use the insanity defense to finagle his way to freedom.</td>
<td>.02</td>
<td>.78</td>
<td>−.02</td>
</tr>
<tr>
<td>11</td>
<td>As a last resort, defense attorneys will encourage their clients to act strangely and lie through their teeth to appear &quot;insane.&quot;</td>
<td>.05</td>
<td>.77</td>
<td>.02</td>
</tr>
<tr>
<td>6</td>
<td>The insanity defense threatens public safety by telling criminals that they can get away with a crime if they come up with a good story about why they did it.</td>
<td>.15</td>
<td>.72</td>
<td>.14</td>
</tr>
<tr>
<td>2</td>
<td>For the right price, psychiatrists will probably manufacture a &quot;mental illness&quot; for any criminal to convince the jury that he is insane.</td>
<td>.17</td>
<td>.62</td>
<td>−.02</td>
</tr>
<tr>
<td>9</td>
<td>The insanity defense returns disturbed, dangerous people to the streets.</td>
<td>.41</td>
<td>.49</td>
<td>.16</td>
</tr>
<tr>
<td>13</td>
<td>The insanity plea is a loophole in the law that allows too many guilty people to escape punishment.</td>
<td>.47</td>
<td>.49</td>
<td>.03</td>
</tr>
<tr>
<td>18</td>
<td>Many of the crazy criminals that psychiatrists see fit to return to the streets go on to kill again.</td>
<td>.27</td>
<td>.31</td>
<td>−.20</td>
</tr>
<tr>
<td>15</td>
<td>It is wrong to punish people who commit crime for crazy reasons while gripped by uncontrollable hallucinations or delusions.</td>
<td>.28</td>
<td>.07</td>
<td>.60</td>
</tr>
<tr>
<td>17</td>
<td>Some people with severe mental illness are out of touch with reality and do not understand that their acts are wrong. These people cannot be blamed and do not deserve to be punished.</td>
<td>.44</td>
<td>−.16</td>
<td>.60</td>
</tr>
<tr>
<td>3</td>
<td>I believe that we should punish a person for a criminal act only if he understood the act as evil and then freely chose to do it.</td>
<td>−.20</td>
<td>.23</td>
<td>.57</td>
</tr>
<tr>
<td>7</td>
<td>I believe that mental illness can impair people's ability to make logical choices and control themselves.</td>
<td>.03</td>
<td>−.16</td>
<td>.55</td>
</tr>
<tr>
<td>5</td>
<td>It is wrong to punish someone for an act they commit because of any uncontrollable illness, whether it be epilepsy or mental illness.</td>
<td>.32</td>
<td>.12</td>
<td>.49</td>
</tr>
<tr>
<td>16</td>
<td>Most defendants who use the insanity defense are truly mentally ill, not fakers.</td>
<td>.15</td>
<td>.17</td>
<td>.19</td>
</tr>
<tr>
<td>12†</td>
<td>Perfectly sane killers can get away with their crimes by hiring high-priced lawyers and experts who misuse the insanity defense.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Eigenvalues</strong></td>
<td><strong>3.00</strong></td>
<td><strong>2.95</strong></td>
<td><strong>1.87</strong></td>
</tr>
<tr>
<td></td>
<td>% variance</td>
<td>16.61</td>
<td>16.41</td>
<td>10.34</td>
</tr>
<tr>
<td></td>
<td>α</td>
<td>.83</td>
<td>.87</td>
<td>.89</td>
</tr>
</tbody>
</table>

Note: Factor loadings appear in bold.

* and † = Skeem et al.'s (2004) Strict Liability items, and Injustice and Danger items respectively.
+ and ++ = Vitacco et al.'s (2009) Strict Liability items, and Unprofessional Behavior and Safety Concern items, respectively.
# = item excluded from the principal component analysis in the present study.

Exploring the structure of the IDA-R in Ghana: Principal component analysis

Using PCA, three factors that accounted for 43% variance in IDA-R were obtained based on the screen plot and the eigenvalues. The factors were not significantly correlated ($p > .05$). As a cross-check, the analysis was performed again using oblique rotation (direct oblimin). The result showed that the factor loadings, based on the pattern matrix, were indistinguishable from those generated by the varimax rotation. This further indicated that the factors were not significantly correlated (Field, 2011). To facilitate the interpretation of the rotated component matrix, the items were sorted and grouped based on the loading size.

As illustrated in Table 1, three distinct factors emerged from the analysis. Factor 1 represents Skeem et al. (2004) and Vitacco et al.'s (2009) concept of strict liability, as discussed above. However, unlike in Skeem et al.'s (2004) study, the items in the present study loaded perfectly onto the factor without any cross-loading. The strict liability factor has five items, with total scores ranging from 5–22 ($M = 13.82, SD = 3.90$), and internal consistency (Cronbach’s alpha) of .83. It also accounted for about 17% of the total variance in insanity defense attitudes. Interestingly, factor 2 also corresponded with Vitacco et al.'s (2009) concept of unprofessional behavior and safety concerns (see above for details). The total scores of the 7-item unprofessional behavior and safety concerns dimension ranged from 7–35 ($M = 24.52, SD = 5.08$), with internal consistency (Cronbach’s alpha) of .87. The factor has four unique loadings and three items (9, 13, and 18) cross-loadings. It also explained about 16% variance in insanity defense attitudes.
Finally, the unique factor that emerged in the present study has items conveying the idea that the participants care and were sorry about the trouble, grief, and the misfortune of defendants pleading insanity at the time of offense. Some of the items read: (1) most defendants who use the insanity defense are truly mentally ill, not fakers (item 16); and (2) it is wrong to punish people who commit crime for crazy reasons while gripped by uncontrollable hallucinations or delusions (item 16). As a result, factor 3 was labeled as expression of sympathy. The factor has five unique item loadings and one cross-loading (item 19), with total scores ranging from 7–30 (M = 24.52, SD = 3.68), and a Cronbach’s alpha of .89. This factor explained about 10% of the variance in insanity defense attitudes.

**Gender, age, religious commitment, and attitudes toward the insanity defense**

For simplicity, only the significant MANOVA and univariate results were reported. The MANOVA analysis showed a significant main effect for religious commitment, Wilks’ $\lambda = .33$, F (102, 330) = 1.43, $p = .01$, $\eta^2 = .31$, on attitudes toward the insanity defense. A follow-up with ANOVA revealed that religious involvement had significant effects on the expression of sympathy attitude, $F (34, 199) = 2.16$, $p = .001$, $\eta^2 = .40$. Albeit religious commitment did not significantly influence the other insanity defense attitudes, it is also interesting to note that the effects (Wilks’ $\lambda$) of religious commitment on strict liability attitude, unprofessional behavior and safety concern, and IDA-R total were .27, .24, and .22, respectively. In summary, the result revealed that religious commitment had significant influence on the expression of sympathy attitude.

**Views on the causation and treatability of mental illness as predictors of attitudes toward the insanity defense**

As previously indicated, the participants responded to items designed to assess their views (i.e., Agree, Not sure, and Disagree) on the causation and treatability of mental illness. Firstly, the majority of the participants agreed that mental illness is caused by psychosocial factors (90%), biological factors (71%), and supernatural forces (e.g., demons, witchcraft, and evil spirits; 46%). About 67% reported that mental illness is curable. About 85% of the participants agreed that treatment for mental illness should be provided at the psychiatric hospital, with only about 3% expressing disagreement.

With respect to the regression analyses predicting attitude toward insanity defense, when the IDA-R total was used as the outcome variable, the model that emerged was not statistically significant, $R^2 = .06$, $F (9,189) = 1.21$, $p = .29$, suggesting the predictors (i.e., gender, age, religious commitment, and mental illness is caused by (1) psychosocial factors, (2) biological factors, and (3) supernatural forces) were not significant in predicting attitudes towards the insanity defense ($p > .05$). In subsequent analyses, the dimensions of IDA-R (mainly strict liability, and expression of sympathy, and unprofessional behavior and safety concerns) were used as the outcome variable. The model that emerged for each of the outcome variables was not statistically significant ($p > .05$). Consistent with the above, it was observed that the participants’ views on the treatability of mental illness and other predictors (e.g., gender, age) failed to significantly predict the IDA-R total, $R^2 = .05$, $F (9,189) = 1.13$, $p = .34$, or the IDA-R subscales ($p > .05$).

Based on previous studies (Eisenberg, Garvey, & Wells, 2001; Kivisto & Swan 2011) specifically relating religious views to insanity defense attitudes in the U.S., we explored this relation in our study. For simplicity, we reported only the significant results: religious commitment predicted expressions of sympathy. Specifically, the model with religious commitment accounted for 16% of the variance in expression of sympathy factor, $R^2 = .16$, $F (1, 197) = 3.20$, $p = .02$, and also significantly predicted the expression of sympathy factor, $\beta = .13$, $t(252) = 1.79$, $p = .02$. The result suggests that participants who scored high in religious involvement were more likely to express sympathy toward defendants pleading the insanity defense.

**Discussion**

The aim of the present study was to investigate and validate the latent structure of the IDA-R using a sample from Ghana. The study further examined the extent to which certain socio-cultural views (e.g., belief in demons and witches as causes of mental illness) influence attitudes toward the insanity defense. First, confirmatory factor analyses revealed that the latent structure of the IDA-R reported by previous studies in the U.S. do not provide adequate fit for the Ghanaian data. Specifically, Skeem et al.’s (2004) injustice and danger, and strict liability, as well as Vitacco et al.’s (2009) unprofessional behavior and safety concern, and strict liability did not fit the present data. This brings to light the age-long discussion that attitudes toward specific objects or individuals are heavily influenced by sociocultural factors (Adjorlolo & Chan, 2015b; Steffens, Jonas, & Denger, 2015). Consequently, it appears that generating and confirming entirely a new model of insanity defense attitudes in Ghana is necessary. Because of the relatively small sample size, it is not possible to randomly split the
sample into two, and use half for data exploration and the other half for CFA. Therefore, as a first step to achieve this goal, we conducted an exploratory study to examine the structure of the IDA-R scale in Ghana.

Interestingly, when the data were subjected to principal component analysis, three factors were identified. The clustering of the items on the three factors provides an interesting picture regarding the latent structure of the IDA-R, two of the factors were consistent with previous studies in the United States (i.e., Skeem et al., 2004; Vitacco et al., 2009). These factors were the strict liability, and unprofessional behavior and safety concerns. The identification of these factors seems to suggest that attitudes toward the insanity defense may be similar in Ghana and the U.S. Importantly, the findings suggest that strict liability, and unprofessional behavior and safety concerns attitudes may not necessarily be influenced by the extent of public discussion and knowledge of the defense. This is plausible given that there has never been a major and a high profile incident involving the insanity defense in Ghana prior to this study, and so knowledge about the existence and the application of the defense is not well-known. This starkly contrasts with the situation in the U.S. where acquittals based on insanity defense in high profile cases have been discussed (see Zapf et al., 2014). As a consequence, studies have documented negative public attitudes of and misinformation about the defense (Daftary-Kapur et al., 2011; Hans & Slater, 1984; Roberts & Golding, 1991). On the other hand, the reports of negative attitudes toward mental illness and criminal offenders in Ghana might partly account for the emergence of these factors (e.g., Barke et al., 2011).

The third unique and novel attitude dimension identified in this study was the expression of sympathy. The identification of this factor has validated Skeem et al.’s (2004) claim that other dimensions may underpin insanity defense attitudes. When contrasted with previous studies, it was evident that the items forming the expression of sympathy factor loaded onto both the strict liability, and injustice and danger in the study by Skeem et al. (2004). Yet, in Vitacco et al.’s (2009) validation study, the majority of the items considered irrelevant and consequently excluded from the analyses were mainly those that constituted the expression of sympathy factor in this study.

The intriguing question relates to why previous studies did not identify this human centered attitude towards the insanity defense but instead reported strict and harsh attitudes. Because these previous studies have used almost equal proportion of European American as participants (95% in Skeem et al., 2004; 89.5% in Vitacco et al., 2009), but did not identify this factor, it seems reasonable that the factor reflects some sociocultural differences between the Ghanaian and U.S. samples. While the exact cultural elements underlying this attitude are yet to be illuminated, it is speculated that the high rates of participation in religious activities in Ghana probably account for this unique and novel attitude. Thus, although defendants pleading insanity at the time of offense may have committed heinous crimes, the principle and doctrine of forgiveness might facilitate the adoption of liberal and lenient attitudes (being sympathetic) toward the defendants. Unsurprisingly, religious commitment had significant influence and predicted the expression of this attitude. Specifically, individuals who were highly committed to religious activities were more likely to express sympathetic attitude towards defendants who have raised the insanity defense. Granted the above, it would be expected that in cultures where there are indications of high religious involvement, the expression of sympathy attitude should be manifested. This should be the case for countries such as those in Africa (e.g., Nigeria), Europe (e.g., Italy), and Latin America (e.g., Cuba) that are particularly noted for high engagement in Christian religious activities. On the other hand, because the participants in this study were predominantly Christians, it is difficult to hypothesize that this factor would emerge with participants who professed Islamic faith.

Taken as a whole, the result implies that attitudes toward the insanity defense can be construed as centering on two ends of a continuum. At one end are attitudes toward defendants pleading insanity at the time of offense, while the other end involve attitudes toward mental health professionals and their roles in the assessment and adjudication of defendants raising the insanity defense. Attitudes toward the defendants include holding them strictly liable (i.e., strict liability factor) for the crime committed or expressing a sense of sympathy (i.e., expression of sympathy factor) towards them. These factors apparently represent conceptual, theoretical and human centered expression of attitudes, and so they may provide some useful insights into the insanity defense, even though they are yet to be confirmed in Ghanaian samples.

**Factors influencing attitudes toward the insanity defense**

The study found no significant gender effect on insanity defense attitudes, corroborating previous studies in the United States (e.g., Bloechl et al., 2007; Kivisto & Swan, 2011; Vitacco et al. 2009). Thus, it appears that gender per se may not have significant influence on attitudes toward insanity defense, although its effect was observed by studies investigating decision making in insanity defense trial in which evidence and/or case facts are
manipulated (e.g., Breheney et al., 2007; Finkel & Handel, 1988; Hans & Slater, 1984).

The influence of religion on attitudes toward insanity defense has been inconsistently reported (see Bloechl et al., 2007; Kivisto & Swan, 2011). In this study, we found that the extent of religious commitment significantly predicted the extent to which the participants expressed sympathy toward insanity defendants. High commitment to religious activities was associated with the tendency to be more sympathetic toward insanity defendants. In contrast, the finding that religious commitment did not predict the other types of insanity defense attitudes (e.g., strict liability) contradicted previous studies in the United States (Kivisto & Swan 2011). Perhaps differences in the measurement and operationalization of religion might account for the contrasting results. Studies documenting negative effects of religion appeared to have been interested in orthodox or conservative views (i.e., religious fundamentalist; e.g., see Eisenberg, Garvey, & Wells, 2001; Kivisto & Swan 2011). Anecdotally, the majority of the participants who professed Christian faith, given their age range, were more likely to worship with charismatic and Pentecostal churches than with orthodox or conservative churches. The charismatic or Pentecostal churches are generally more liberal in their religious views and teachings compared with the orthodox churches. This partly explains the significant predictive positive association between religious commitment and expression of sympathy. Again, the insignificant influence of religious commitment on the harsh insanity defense attitudes (e.g., strict liability) might be due to the liberal of views of the participants. This hypothesis, however, offers a new area of research into the effects of different forms of Christian religion (e.g., Catholic, Charismatic, and Pentecostal) and religious practices (e.g., liberal versus conservative teachings) on insanity defense attitudes, as well as other psychosocial constructs (e.g., death penalty). In general, this study did not find evidence that views concerning the causes and treatability of mental illness significantly predicted attitudes toward the insanity defense. However, given that these factors have not been comprehensively explored, it is recommended that future studies examine the extent to which they relate to attitude towards the insanity defense, or insanity defense decision making in general.

**Limitations of the study**

The outcomes of the study must be considered given the methodological limitations described below. First, due to administrative constraints, it was impossible to recruit participants who qualify as jurors or are on the country’s jury list. Although studies of juror decision has predominantly used potential or mock jurors (e.g., Peters & Lecci, 2012; Vitacco et al., 2009) the findings and those reported here should not be taking as necessarily applicable to those designated as jurors. Besides, the findings should be viewed as reflecting on a measure (the IDA-R) rather than on the construct (attitudes toward the insanity defense). Moreover, although the participants were potential jurors, they are not representative of all potential jurors. The Criminal procedure Act (Act 30) extends the juror pool to persons with varying demographic characteristics, including educational background. Different results might have been obtained from potential jurors with low educational background (e.g., senior high school) as illustrated by previous studies (see Sloat & Frierson, 2005). Additionally, the relatively small sample size and the convenience sampling strategy employed also limit the generalizability of the findings to potential jurors at the University level.

Research indicates that several indices of reliability, validity, and discriminating power are significantly better for scales with response categories from 5 and above (for a review, see Preston & Colman, 2000). Given that a 7-point Likert response format is relatively less stable and takes longer to complete (Dolnicar, Grun, & Leisch, 2011), a 5-point instead of the original 7-point response format of the IDA-R was used in the present study. This said, although two of the factors identified in the present study were the same as those reported in previous studies (i.e., Skeem et al., 2004; Vitacco et al., 2009), there is the possibility that the third factor could have been influenced by the modification of the response format or the exclusion of the one of the items from the PCA. Studies examining the internal structure of the IDA-R scale in the United States or other jurisdictions using the 5-point response format, instead of the original 7-point, will provide better insights into the impact of different response format on the IDA-R. This will have significant implications for refining the IDA-R scale.

Another limitation of the study is the use of a case vignette of an insanity defense case with an outcome (i.e., acquittal and commitment to treatment). This, however, was necessitated by the reasoning that the participants had no or limited knowledge about the defense in Ghana, given it is not publicly discussed relative to in the United States. The vignette was, therefore, to ensure that the Ghanaian samples were somewhat comparable to the participants from the United States. This said, there is the possibility that the attitudes identified in the study were reflections of the characteristics of the case vignette (i.e., acquittal and commitment to treatment). Different findings could have emerged if the vignette had resulted in a different outcome (i.e., guilty). Future studies should
avoid this potential confound by designing a vignette without an outcome and having the participants register a vote of guilty or not guilty by reason of insanity. Doing so will also help to investigate the predictive validity of the resulting attitudes towards the insanity defense. It is also recommended that future studies should endeavor to administer the IDA-R scale with a vignette without an outcome to examine whether the attitudes emerging would be comparable to those reported in the present.

**Summary and conclusion**

The present study has investigated the internal structure of IDA-R using a Ghanaian sample. Previously identified IDA-R factors did not provide excellent fit for the present data. Consequently, using PCA, we identified three factors—strict liability, unprofessional behavior and safety concerns, and expression of sympathy. The first two factors were consistent with previous validation attitudes in the United States whereas the identification of the third factor largely corroborate Skeem et al.’s (2004) claim that the IDA-R may possess more than two factors. In general, this preliminary and first-ever study in Ghana has revealed that some individuals may have negative attitudes (i.e., strict liability, and unprofessional behavior and safety concern) and positive attitude (i.e., expression of sympathy) toward the insanity defense, and by extension defendants pleading insanity at the time of offense.

In the context of legal decision making, individuals holding strict liability attitude are more likely to regard insanity defendants as criminally responsible and blameworthy. The question about the defendants’ mental states at the time of the offense may be highly irrelevant to the decision making process. They may also disregard any psychiatric evidence or scanty evaluate any such evidence concerning the nexus between mental abnormalities and criminal propensities. Individuals expressing unprofessional behavior and safety concerns attitude may also exhibit behaviors similar to those high in strict liability. They are likely to be doubtful of psychiatric evidence presented at the courtroom, or the evidence may be unpersuasive to them, especially if they hold the view that mental health professionals will present results that will favor the defendants at all cost. When complemented with the notion that insanity defendants when released pose a danger to the safety and security of the community, these individuals would be more likely and willing to convict rather than acquit insanity defendants. Conversely, individuals who score high in the expression of sympathy attitude are more likely to absolve insanity defendants from criminal responsibility. Because these individuals are more likely to pay close attention to psychiatric evidence regarding the link between the mental disorder and the criminal activities, they are more likely to be unbiased in their legal decision. Taken as a whole, the study has partly supported the utility of the IDA-R in Ghana to screen for potential biased legal decision makers and consequently adopt measures to bring their decision making to conform to the requirement of the law whereby impartial and unbiased decision making is desired (Eno Louden & Skeem, 2007).

In conclusion, this study has offered insight into attitudes toward the insanity defense outside the United States. To consolidate this preliminary finding, more cross-cultural studies into the factor structure of the scale are obviously warranted. It would be interesting to ascertain whether the factors, specifically the expression of sympathy, identified in the present study would be replicated in other cultures, or whether it is limited to the Ghanaian sample. More studies from Ghana are also needed to confirm the findings of the present study.

**References**


