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# Detecting Deception using Reality Monitoring: A Multi-method Exploration

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## Abstract

*The present research was conducted using multi-method techniques. The first phase was a qualitative exploration of the need for an assessment tool for screening deception in confession statements. The second phase used objective quantitative technique to investigate the efficacy and validity of Reality Monitoring technique; within indigenous settings, with reference to different professions. The sample of the study consisted of 30 professionals from 5 professions, namely lawyers, police officers, psychologists, journalists, Urdu language and English language experts. The results followed that police officers had the highest ability to detect deception in confession statements and that RM technique is viable for indigenous setting, after a few practical considerations.*

Keywords: Confession statements, Deception, Effect of Professions, Indigenous need, Reality Monitoring.

## Introduction

Pakistan came into being on August 14<sup>th</sup>, 1947 independent from British rule. Rich history of conquests, practising different religions and cultures and influence from the neighbouring countries has resulted in an amalgamation of beliefs and values emergent in all fields of life (Shah & Amjad, 2011). A country with great hospitality across all its provinces lacks the basic awareness and practicing of criminal justice system. There are many loopholes in the mesh interweaving justice, crime and related-legal procedures. The criminal justice system in Pakistan operates on two legal documents: Pakistan Penal Code and Criminal procedure court. Pakistan's Criminal Law system asserts that no person is being convicted without all the required evidences but the system is inefficient leading to automatic suffering of innocents (Qayum, Farid, Shehzad, & Zhu, 2016). Legal system of

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Pakistan is dysfunctional because of numerous reasons including societal attitude, outdated laws, powerful elite forming malicious confederation and lack of modern ways in legal education etc. (Chattha, 2019). A case under Pakistani legal system takes years for a criminal/civil case to be dismissed logically with justice prevailing (Shahidullah, 2017). This, indeed, can be linked to the colonial-era procedures and lack of incorporating new procedures to screen out innocents from alleged criminals (Brown, 2018).

This study aims at initiating research for incorporation of new procedures in Pakistan legal system by assessing the need for detecting deception and proposing a technique, namely Reality Monitoring Checklist for detection.

### *Confession Statement*

Confessional statement is a statement given by a suspect as evidence in court of law whereas a false confession is a tempering of evidence (Robbins, 2001). This occur in 6 potential conditions: False confessions due to coercion, Inadmissible confessions, Coerced confessions resulting in resentment, Coercion resulting in post-traumatic stress disorder, Undermining public confidence and the 'Boomerang Effect' (Robbins, 2001).

### *Confession Statements in Pakistani Legal Context*

The statement of the accused becomes confession only if recorded compliantly by provisions of Section 164 and 364 of the Criminal Procedure Court (Cr. P. C) of Pakistan after observing obligatory formalities and precautions. In case of a written confession statement or one made in audio recording, section 364 states procedure for implementing section 164. The entire procedure is an attempt to rule out the element of deception with the prospect of including free will so that an accurate account is produced (Appendix A). However, the confirmation of an absence of deception or accuracy has been a topic of research from various domains of human behaviour for example role of memory in eye witness accounts or deception in evidence provided (Lang, 2010).

### *Deception*

Deception is an act that is not true and is carried out to alter a belief based on the presented truth, which involves dissimulation and concealment (Merriam Webster, 2018). According to the Pakistan Penal Code (1860), deception has many definitions as seen in Section 24, 25, 28 and 29 (Appendix B). However, the closest section of law defining operationally deception for this research is under section 415: *a dishonest concealment of facts is a deception.*

### *Methods of Assessment*

According to the international literature, confession statements can be assessed for being true and false through various methods of textual analysis. All methods have their own procedures and requirements. Some of them are as follows: (i) Criteria based Content analysis (CBCA), (ii) Flesch Reading Ease Index (FREI), (iii) Stylistics, (iv) Statement validity analysis (SVA) and (v) Reality Monitoring. These methods have long requirements which limits their use in our legal system. For instance, CBCA is made for child abuse victims only and the current study aimed at using murder confession statement (Virj & Mann, 2006). Secondly, FREI requires to test reading ability of the criminal along

with a written confession (Farr, Jenkins, & Paterson, 1951). This is not possible in Pakistan as direct interaction with criminal of a psychologist is not allowed and even if it is possible, most criminals are below literacy rate and are unable to read. Similarly, Stylistics requires 2 written documents: a confession and any other written document (McMenamin, 2002). Getting another written document is not allowed in context of Pakistan. Lastly, SVA is not doable in Pakistani context because it is a step-by-step process including case file analysis and a semi-structured interview (Raskin, & Esplin, 1991), that is not allowed in Pakistani law system. Due to these limitations, fitting any other method in our legal system is not possible and Reality Monitoring was selected and employed in this study.

*Reality monitoring (RM)*. In response to the long procedure of Statement Validity Analysis (SVA), RM provides an alternative method to detect deception. RM is based on the model of memory by Johnson and Raye (1981). They enlisted two types of memory sources i.e. internal and external. The former is used as a source when a person imagines an event to create a picture of something a person has not experienced, while the latter is used as source when someone has actually experienced an event and would use one or more of the five senses. RM is based on a criterion covering 12 aspects i.e. visual details, audio details, smell, taste, physical sensations, affective details, spatial details, temporal details, cognitive operations, clarity, reconstruction and realism (Willén & Strömwall 2012). Real memories will include spatial, temporal and perceptual details and imaginative memories will include details relating to cognitive processes (Johnson and Raye (1981). It is also proven by researches that visual, auditory, temporal and spatial details along with realism are more common in truthful than false statements. The cognitive operations i.e. the manipulation of memory, indicate deceptive statements (Masip, Sporer, Garrido, & Herrero 2005).

#### *Effect of Profession in Detecting Deception in Confession Statements*

A variety of studies in previous literatures show the effect of profession in detecting deception in forensic context, may it be eye witness testimony, confession statements or interrogative interviews. Ekman, O' Sullivan and Frank (1999) conducted a study within three professional groups that were trained in detecting deception: two law-enforcement groups and one group of clinical psychologists. The study concluded that professional lie catchers are highly accurate, and that behavioural clues to lying are detectable in real time. Moreover, this study provided the first ever evidence that psychologists can achieve high accuracy in catching lies.

In the same year, Kassin and Fong (1999) conducted a study that tested the hypothesis that training in use of verbal and nonverbal cues increases the accuracy of judgements regarding deception. 40 observers who were either trained in the analysis of verbal and non-verbal deception cues and those who were not trained before, viewed videotaped interrogations and made judgements. It was observed that those who underwent training were less accurate than naïve controls but were more confident and cited more reasons for their judgement.

Another study was designed to assess the effects of training police officers, social workers and students via CBCA in an attempt to increase lie detection accuracy. Participants were asked to rate the truthfulness of a maximum of four statements before and after training in CBCA. The results showed that in pre-test phase, there were no

significant differences in detection accuracy between police officers (66% accuracy), social workers (72% accuracy) and students (56% accuracy). Whereas in post-testing phase, social workers were 77% accurate and significantly more accurate than police officers (55%) and students (61%). Also, police officers performed significantly poorer but were significantly more confident than social workers and lay persons regardless of accuracy (Akehurst, Bull, Vrij & Köhnken, 2004).

Similar results were found in a study conducted by Kassin, Meissner, and Norwick (2005) where College students and police investigators detected deception in prison inmates confessing to crimes. Students were generally more accurate than police but police officers were significantly more confident in their judgments. Later in 2009, O' Sullivan, Frank, Hurley and Tiwana discussed that police professionals demonstrate a significant lie detection accuracy, reason being that the types of lies police are asked to judge in scientific experiments often do not represent the types of lies they see in their profession. O' Sullivan, Frank, Hurley and Tiwana (2009) meta-analysed 23 studies, involving 31 different police groups in eight countries and concluded that police officers tested with lie detection scenarios using high stakes lies were significantly more accurate than law enforcement officials tested with low stakes lies.

### *Importance of Study*

It's quite evident via the scarcity of research in forensic sciences across Pakistan that there is a dire need for scientific inquiry as Instruments in detection of deception are still new to Pakistani forensic research. There is a need to screen out the truth in confession statements for better judicial system in Pakistan as the statistical records of 2015 reported crimes in Pakistan indicating increase from 633299 to 677554 in 2016 (National Police Bureau 2016).

It is a common perception that confessions in the court of justice are always confessed by the person who is guilty of the respective crime, however this may not always be the case. "The increasing segregation of social classes in Pakistan with elite becoming more financially strong and lower classes becoming more dependent on the former, sometimes inculcate the practice of false confessions of crimes not committed in return for monetary benefits. Such practices are and lead to more injustice prevailing in society. To prevent judicial turmoil, it is a dire need to initiate measures in detecting deception the validity of confession statements" (Aftab, S. including Personal communication, February 11, 2018).

The difficulties to explore deception and the utmost necessity of exploring it, latter is more important and former must be dealt with to fill in the literature gap of detecting deception with a tool that can be used indigenously. This research was aimed at introducing a method to organize information according to objective criteria in the legal context.

## **Methodology**

### *Objectives*

The objectives of the study were to: qualitatively explore the need for an assessment tool for screening deception in confession statements, investigate the efficacy of RM Technique within indigenous settings of Urdu confession statements, and to check

whether professions have an effect on detecting deception in confession statements through Reality Monitoring.

### *Research Design*

The present research follows a mixed research design, an approach involving qualitative and quantitative techniques in a single research study (Christensen, Johnson, Turner & Christensen, 2011). Interviews were carried out to qualitatively assess occurrence of deception, presence of an indigenous tool, and need for a tool. After that, the RM checklist was administered with attached Urdu confession statements to assess the validity of RM Technique on Urdu Confessions in Pakistan.

The following hypotheses were formulated for the quantitative part:

1. True confession statements have more spatial, temporal, perceptual details and realism than false confessions.
2. False confession statements have more affective processes and cognitive processes than true confession statements.

### *Procedure*

The research was approved by the Department Review Committee, Department of Humanities, COMSATS University Islamabad, Islamabad Campus. Interviews were conducted with individuals from six professions namely Lawyers, Police Officers, Psychologists, Journalists, Urdu-language Experts, and English Language experts. The interview guidelines varied with each profession (Appendix C).

All participants were given the RM checklist in English language and the experimenter read the confession statements (Appendix D) one by one in an audible and clear voice. Later, the participants were instructed to fill the RM checklist for each confession statement and submit their response within the same time limit of 5 minutes each. The limit for time and reading of confession statements were controlled for extraneous variables such as readability capability and comfort with the language of confession statements i.e. Urdu.

True confession statements were obtained from the case files of real criminals through different courts across the country. False confessions were created based on similar true criminal situations presented within a standard inclusion criterion. This criterion was extracted from legal requirements (Cr. P. C.) and real confession statements used in this study.

### *Sample*

The sample of the current study included six groups of professionals with a total of 30 participants. Each sub group consisted of five subjects selected through purposive sampling technique. These six groups consisted of the following professions: journalists, police officers, lawyers, psychologists, English-language experts and Urdu-language experts. The sample was segregated equally between genders with 15 females and 15 males. The qualification for journalists, psychologists, English and Urdu language experts was kept post-graduation with an MS/PhD degree. Whereas for police officers, qualification of CSS was kept constant and for lawyers, LLB was the minimum criteria. The professional experience ranged from 15 years to 32 years. Experience range was not defined by

researcher priority because obtaining a sample of all the professions required is not easily accessible in Pakistani context due to permission issues. Giving a mutually exclusive experience as inclusive criteria would have limited population size for sample.

*Instrument: Reality Monitoring*

For detection of deception, the RM Technique was used to classify true and false confession statements. The reality monitoring criteria checklist and five-point likert scale was developed by Will'en and Str'omwall (2012). After gaining consent from original author, a modification was done by adding an English language statement for each of the 12-items on checklist based on the theoretical concepts of RM. These statements were interrogative statements for the concepts of RM (Appendix D). These were approved by Departmental Review Committee, Department of Humanities, COMSATS University Islamabad. The range for responses varies between 12 to 60.

The Reality Monitoring is a qualitative analysis for written statements, standard checklist criteria can be used with a likert scale that caters to the specific research objectives for any particular study (Will'en & Str'omwall, 2012). Furthermore, checklists do not have reliability coefficients because the responses vary from individual to individual (Furr, 2017). According to Virj (2008), 72% is the truth accuracy rate and 66% is the average lie accuracy, out of which 50% is attributed to chance. Furthermore, when compared with Criterion based content analysis (CBCA), 68.13% is the average total accuracy rate for RM Technique and 63.63% for CBCA.

**Results**

Table 1 shows results of the regression analysis for True Confession statement 1. When considered individually, cognitive operations, audio details, realism and smell contribute significantly to the final model for True Confession statement 1. The stepwise regression resulted for  $R^2=.63$  in step 1,  $R^2=.81$  for step 2,  $R^2 =.88$  for step 3, and  $R^2= .92$  for step 4 ( $p < .05$ ,  $p < .01$  and  $p < .001$ ).

Table 1. Stepwise Regression Analysis for predicting of True Confession 1

Predictors	$\beta$	$R^2$	$\Delta R^2$
Step 1		.63	.63
Cognitive operations	.79***		
Step 2		.81	.17
Cognitive operations	.67***		
Audio details	.43***		
Step 3		.88	.07
Cognitive operations	.56***		
Audio details	.48***		
Realism	.29***		
Step 4		.92	.04
Cognitive operations	.54***		
Audio details	.33***		
Realism	.37***		

Smell	.26**		
Step 5		.94	.01
Cognitive operations	.47***		
Audio details	.32***		
Realism	.33***		
Smell	.30***		
Visual details	.16*		
Step 6		.95	.01
Cognitive operations	.36***		
Audio details	.29***		
Realism	.34***		
Smell	.36***		
Visual details	.16**		
Temporal details	.17**		
Step 7		.96	.00
Cognitive operations	.35***		
Audio details	.32***		
Realism	.34***		
Smell	.28***		
Visual details	.15**		
Temporal details	.15**		
Affective details	.10*		
Step 8		.97	.00
Cognitive operations	.37***		
Audio details	.29***		
Realism	.32***		
Smell	.30***		
Visual details	.15**		
Temporal details	.12*		
Affective details	.10*		
Spatial details	.09*		

Note  $\beta$  = Standardized regression weight,  $R^2$  = Explained Variance,  $\Delta R^2$  = change in  $R^2$   
 $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

Table 2. Stepwise Regression Analysis for Predicting of True Confession 2

Predictors	$\beta$	$R^2$	$\Delta R^2$
Step 1		.70	.70
Visual details	.83***		
Step 2		.80	.10
Visual details	.68***		
Spatial details	.35**		
Step 3		.85	.05
Visual details	.58***		
Spatial details	.44***		

Taste	.25**		
Step 4		.92	.06
Visual details	.40***		
Spatial details	.47***		
Taste	.29***		
Cognitive operations	.30***		
Step 5		.94	.02
Visual details	.36***		
Spatial details	.42***		
Taste	.21**		
Cognitive operations	.33***		
Audio details	.17**		
Step 6		.96	.18
Visual details	.31**		
Spatial details	.36***		
Taste	.21***		
Cognitive operations	.27***		
Audio details	.17**		
Realism	.19**		
Step 7		.98	.19
Visual details	.23***		
Spatial details	.29***		
Taste	.23***		
Cognitive operations	.19***		
Audio details	.18***		
Realism	.26***		
Temporal details	.18***		
Step 8		.98	.00
Visual details	.19***		
Spatial details	.22***		
Taste	.21***		
Cognitive operations	.20***		
Audio details	.19***		
Realism	.27***		
Temporal details	.14**		
Affective details	.13**		

Note  $\beta$  = Standardized regression weight,  $R^2$  = Explained Variance,  $\Delta R^2$  = change in  $R^2$ .  
 $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

Table 2 shows results of the regression analysis for True Confession statement 2. When considered individually, visual details, spatial details, taste and cognitive operations contribute significantly to the final model for True Confession statement 2. The stepwise regression resulted for  $R^2=.70$  in step 1,  $R^2=.80$  for step 2,  $R^2=.85$  for step 3, and  $R^2=.92$  for step 4 ( $p < .05$ ,  $p < .01$  and  $p < .001$ ).



Table 3 shows results of the regression analysis for False Confession statement 1. When considered individually, cognitive operations, physical sensations, visual details and realism contribute significantly to the final model for False Confession statement 1. The stepwise regression resulted for  $R^2=.68$  in step 1,  $R^2=.81$  for step 2,  $R^2=.89$  for step 3, and  $R^2=.96$  for step 4 ( $p < .05$ ,  $p < .01$  and  $p < .001$ ).

Table 3. Stepwise Regression Analysis for Predicting of False Confession 1

Predictors	$\beta$	$R^2$	$\Delta R^2$
Step 1		.68	.68
Cognitive operations	.82***		
Step 2		.81	.12
Cognitive operations	.73***		
Physical Sensations	.36***		
Step 3		.89	.08
Cognitive operations	.60***		
Physical Sensations	.31***		
Visual details	.32***		
Step 4		.96	.07
Cognitive operations	.27***		
Physical Sensations	.42***		
Visual details	.39***		
Realism	.40***		
Step 5		.97	.00
Cognitive operations	.24***		
Physical Sensations	.42***		
Visual details	.37***		
Realism	.34***		
Spatial details	.11*		
Step 6		.97	.00
Cognitive operations	.24***		
Physical Sensations	.37***		
Visual details	.37***		
Realism	.37***		
Spatial details	.13**		
Taste	.09*		
Step 7		.98	.00
Cognitive operations	.25***		
Physical Sensations	.31***		
Visual details	.37***		
Realism	.36***		
Spatial details	.14**		
Taste	.13**		
Affective details	.08*		
Step 8		.99	.00

Cognitive operations	.25***
Physical Sensations	.25***
Visual details	.34***
Realism	.37***
Spatial details	.14***
Taste	.13***
Affective details	.09**
Audio details	.10**

Note  $\beta$  = Standardized regression weight,  $R^2$  = Explained Variance,  $\Delta R^2$  = change in  $R^2$ , \* $p$  < .05, \*\* $p$  < .01, \*\*\* $p$  < .001

Table 4 shows results of the regression analysis for False Confession statement 2. When considered individually, cognitive operations, realism, affective details and audio details contribute significantly to the final model for False Confession statement 2. The stepwise regression resulted for  $R^2$  = .72 in step 1,  $R^2$  = .85 for step 2,  $R^2$  = .91 for step 3, and  $R^2$  = .94 for step 4. The significance level was established at \* $p$  < .05, \*\* $p$  < .01 and \*\*\* $p$  < .001.

Table 4. Stepwise Regression Analysis for Predicting of False Confession 2

Predictors	<i>B</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Step 1		.72	.72
Cognitive operations	.85***		
Step 2		.85	.12
Cognitive operations	.66***		
Realism	.39***		
Step 3		.91	.06
Cognitive operations	.50***		
Realism	.37***		
Affective details	.31***		
Step 4		.94	.02
Cognitive operations	.49***		
Realism	.31***		
Affective details	.31***		
Audio details	.17**		
Step 5		.96	.02
Cognitive operations	.47***		
Realism	.28***		
Affective details	.21***		
Audio details	.18***		
Temporal details	.19***		
Step 6		.96	.00
Cognitive operations	.47***		
Realism	.25***		
Affective details	.23***		

	Audio details	.18***		
	Temporal details	.19***		
	Smell	.09*		
Step 7			.97	.00
	Cognitive operations	.41***		
	Realism	.25***		
	Affective details	.20***		
	Audio details	.18***		
	Temporal details	.16*		
	Smell	.10**		
	Visual details	.11*		
Step 8			.98	.00
	Cognitive operations	.31***		
	Realism	.26***		
	Affective details	.12**		
	Audio details	.17***		
	Temporal details	.12**		
	Smell	.10**		
	Visual details	.17**		
	Spatial details	.15**		
Step 9			.98	.00
	Cognitive operations	.29***		
	Realism	.23***		
	Affective details	.12**		
	Audio details	.15***		
	Temporal details	.13***		
	Smell	.11***		
	Visual details	.19***		
	Spatial details	.17***		
	Physical Sensations	.06*		

Note  $\beta$  = Standardized regression weight,  $R^2$  = Explained Variance,  $\Delta R^2$  = change in  $R^2$ ,  
 $*p < .05$ ,  $**p < .01$ ,  $***p < .001$

All assumptions for MANOVA were tested. The data was relatively skewed as shown by Levene test. This was due to the fact that 2 of the confession statements were true and 2 were false. Hence, the positive skewness on true confession statements reflected truth and negative skewness for false confession statements reflected falsification.

The correlation coefficient is .73 satisfying the assumption of multicollinearity. The assumption for testing outliers was measured by checking the highest value of Mahala-Nobis distance of the data. The score required is less than 13 for 2 independent variables. The value for the current data was 9, hence, meeting the assumption.

In table 5, correlation was conducted to test the assumption of multi-collinearity for MANOVA of all statements. The correlation coefficients ranged within .2 to .8 showing that there is adequate relationship between types of confession statements but not the degree of multi-collinearity.

Table 5. Correlation between True and False Confession Statement (N=30)

Variables	True Confession Statement 1	True Confession Statement 2	False Confession Statement 1	False Confession Statement 2
True Confession 1	-	.69**	.64**	.34
True Confession 2		-	.65**	.63**
False Confession 1			-	.41*
False Confession 2				-

\*p<0.05, \*\*p<0.01

Table 6. Multivariate Analysis of Variance across Professions for Confession Statements (N=30)

	Lawyers		Police officers		Psychologists		Journalists		Urdu-language Experts		English-language Experts		f	P	ij	M.D	SE	95% CI	η <sup>2</sup>	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD								LL
T1	30.80	9.25	27.60	3.97	40.40	7.66	34.80	5.45	33.40	6.98	35.80	1.78	2.38	.06	2-3	-12.8	4.01	-25.22	-.38	.33
T2	30.00	8.86	24.20	5.35	37.40	14.27	34.20	1.92	30.80	5.21	40.00	4.84	2.64	.04	2-6	-15.8	4.93	-31.06	-.54	.35
F1	24.00	9.82	31.60	1.51	34.60	13.01	30.80	4.97	27.20	6.87	33.60	1.94	1.32	.02	NA					
F2	27.20	6.53	24.20	5.07	37.80	14.97	23.80	3.03	28.80	2.58	40.00	2.82	4.58	.004	2-6	-15.8	4.59	-30.00	-1.60	.21
															4-6	-16.2	4.59	-30.40	-2.00	.48

Note: T1=True confession statement 1, T2=True confession statement 2, F1=False confession statement 1, F2=False confession statement

In table 6, Using Pilae's trace, there was statistically significant difference across the professions (IV) on a linear combination of confession statements (DV),  $p = .004$ . Furthermore, the professions had shown differences in detecting truth and falsification in true confession 2 and false confession 2. As the partial eta square is .32, showing that 32.1% of variance in confession statements can be described by the profession of the respondent.

## Discussion

The current study focused on exploring the need for an assessment tool for screening deception in confession statements. Unfortunately, no existing indigenous prior literature to support the notion that deception may occur in confession statements in Pakistan. This was probed and discussed with various professions that may contribute in assisting the legal system including lawyers, police officers, journalists, and psychologists. Additionally, Urdu and English linguists examined the written composition comprehensibly. The questions in interviews varied with the responses given as well as professions, following a semi-structured format. The results are discussed separately for qualitative and quantitative phases.

### Lawyers

Interview guidelines (Appendix C) was used for lawyers as they have the first-hand experience with confession statements and deceptions that may be present in written documents.

According to Lawyer A, confession pertaining to criminal activity like murders is done under section 164 CrPC in supervision of a magistrate and the nature of offense does not have any effect on it. All the parameters and its procedures remain same for recording a confessional statement. Apart from the magistrate, when a trial begins only the prosecution lawyer is allowed to read it before session and use it as corroborative evidence. '*Chances of deception is not high in accepting a first-hand crime but when burden of crime is shared, inculpatory statements are visible over expulitary statements, leading to deception,*' stated Lawyer A, '*but the chances of false confessions are zero.*' Upon inquiring whether there are any indigenous methods for texts falsification evaluation, the only method available is cross examination. Furthermore, when asked about the need for any detecting deception methods, Lawyer A stated that the need exists.

According to Lawyer B, procedures mentioned in section 164 CrPC are the standards for recording confession statement across country. '*There are no core elements in a confession statement for lawyer, rather, the coherence amongst all evidences is what plays the core part,*' Lawyer B added that deception may occur in confession statements for '*blood relations, friendship and under influential party.*' Additionally, the legal systems have flaws as practices of physical abuse, lack of proper procedure for investigation as well as lack of knowledge of such procedures existence.

When lawyer B was probed whether physical remand leads to false confession, he stated that '*court is not bound by the ipse-dixit (a dogmatic and unproven statement) of police,*' as review in Supreme Court monthly review. Concluding, Lawyer B indicated that indigenous procedures to detect deception and false statements should be there and is needed for the betterment of the legal system.

According to Lawyer C, confession statements are of two types: (i) extrajudicial confessions that are done outside of court in front of a reputable person and are considered vague evidence to base a conviction, (ii) judicial confessions are those that are done in front of a magistrate under section 164 CrPC and can be retracted on the first opportunity available. Lawyer C was of the view that false confession statements do not and cannot occur under the unbiased procedure of 164 CrPC in front of a magistrate. The lawyer was unsure whether there was a need for an indigenous tool as for her, the amendments are required at social level first and change is under process but slow.

Lawyer D was an interviewee who stated that confession statements are recorded under a magistrate and are unbiased. She did not throw much light on whether deception or falsification occurs in confessions or not, and stated that the magistrate be cognizant of nonverbal cues as well as assess mental state, as they are trained by psychiatrists in 2-3 lecture sessions. She further stated that there is no need for an indigenous tool for assessing deception as the 12 to 16 questions asked before recording a confession are for the same purpose. She had the view that the legal system befits us perfectly.

According to Lawyer E, confessional statements are recorded in front of magistrates. The procedure may vary across jurisdictions such as in Khyber Pakhtunkhwa (KP), specifically Swat district has Qazi courses as Qazi courts exist and work there. He further added that the procedure includes questions like ‘*aap pressure mein tau nai hain*’, (Is there any pressure on you for accepting this crime?) ‘*aap kisi ko bacha tau nai rahe*’, (Are you doing this confession to save someone?) ‘*aap marzi se ayein hain ya nai*’, (Are you here by your own will?) ‘*aap apni free will se kr rahe hain*,’ (Are you confessing to crime under your free will?) etc.,

Such questions allow the judge to establish free will and that no coercion/pressure was present of the offender. Moreover, after every confession, medical assessment is a must procedure which further assesses signs of drugs to check for mental state. When inquired whether there is any flaw in the legal system and the need for psychologists, the interviewee replied “our law is still the same as made by the British in 1860 and there was no psychology back then. With minimum to no amendments in policies on provincial and national level, it is apparent why there are flaws and no change to accept a psychologist seat in legal proceedings. psychologist should be present and his/her report should be given weightage as of an important component of investigation.”

The interviewer further asked a leading question based on the previous response and asked whether a lawyer/judge should be trained in psychology or a separate psychologist should be there. Lawyer E responded by saying “*iss quom mein hee jhutt hai*’ (This nation is embedded with lies). The judge is busy writing and looking at the piles of notices and evidences on his desk, he does not notice the nonverbal cues during cross examination leading to deception in legal sessions. A psychologist must be seated whose only job is to observe everyone through trial”. Regardless of such views, the interviewee was of the view that testimony is better evidence than confession. However, his reasons differed from all other interviews, as he stated that confessional statements may involve a lot of deception and may be done under social pressure, so it should stay as a corroborative evidence rather than being considered as substantial evidence.

### *Police officers*

There are two types of confession statements made in Pakistan: confession statement made in presence of a duty police officer that includes admission to crime only, and confession statement made under the section 164 of the CrPC. The confession made under former conditions has no worth in the eyes of the court and is considered negligible in a trial of case. Hence, police officers were not asked about the procedure for the confession statement rather occurrence of deception was the only concern.

According to Police Officer A, chances of deception is common as people try to hide the truth. When asked why, he stated ‘with chances of escaping the verdict due to delay in court sessions, people tend to lie and hide their crime.’ When further asked whether there is any way to check or lower deception, the police officer pointed out that there are no ways to check that and that there is a need for such a method.

Police officer B stated that deception is not high amongst Pakistani criminals because of the investigation processes used here such as ‘*Dande ka zorr*’ (physical remand). When asked whether there is any indigenous process utilized to lower the chances of deception, the interviewee replied ‘as there is no deception, no process is used and is not required.’

As per police officer C, ‘deception is present everywhere, may it be Pakistan or America. People would lie when they know that they can get away with it. With less to no implication of laws in Pakistan, chances of deception are high.’ The interviewer further asked whether there is any assessment method to screen this deception, the answer was a hopeless nod indicating no. And on asking whether there is any need for such an assessment tool, the police officer replied ‘*madam agr aap bna laati hain tau acha hai Pakistan k liye*’ (Madam, if you will make an indigenous tool, it will be better for Pakistan).

### *Psychologists*

As there are is a shortage of working professional forensic psychologists in Pakistan, psychologists with an experience between 15 to 29 years were consulted with a minimum qualification of post-graduate. This amount of experience was not priory decided by research, it was established as per convenience of accessing sample. Psychologists were interviewed for frequency of deception based on their understanding of human behaviour and also about the need for an assessment tool.

When Psychologist A was inquired about the need for an indigenous tool or RM tool in detecting deception for confession statement analysis, the psychologist maintained the entire law is not culturally validated. Everything needs to be indigenized. The need for deception detecting tool is there but its application demands trained personnel. Upon asking a derivate question from the first response i.e., who should be trained personnel, the respondent replied that, with mental freshness and open mindedness free of all biasness, a forensic psychologist trained in theory and practice for our law would be a best choice.

According to Psychologist B, deception is a common trait of human behaviour. She stated that ‘whether a person does deception intentionally or unintentionally, it is present. Intentional deception is priory plan; however, unintentional deception occurs as a part of survival when one is put under pressure of investigations.’ When inquired about the need of an assessment tool to assess deception, the interviewee nodded and stated that

*‘measuring and screening human behavioural characteristics has always been beneficial and will be beneficial in legal system also.’*

*Journalists*

A low turnout on views by journalists suggested that the media focuses on reporting what has been provided by the authority and does not consider the perspective of analysing information. According to all journalists included in the qualitative exploration, deception in confession statements may be common but as far as their profession is concerned journalists focus on reporting what has been provided.

*Urdu language experts and English language experts*

The language experts were posed with questions on components of written composition indicating its realism and deception. The majority of the Urdu language experts maintained that it was not possible from scripture, only the author can verify it. English language experts had the same views.

**Table 7. Tabulation of Interview responses**

Professions	Deception Occurrence	Reasons of Deception	Indigenous tool	Need for tool
<i>Lawyers</i>				
L1	No	Burden of crime	No	Yes
L2	Yes	For blood relations	No	Yes
L3	No	No reason	No	No
L4	No views	No reason	No	No
L5	Yes	Social pressure	No	Yes
<i>Police officers</i>				
P1				
P2	Yes	Chances to escape verdict	No	Yes
P3	No	Physical remand prevents	No	No
	Yes	Lack of law implementation	No	Yes
<i>Psychologists</i>				
Ps1	Yes	Survival instinct to lie and	No	Yes
Ps2	Yes	save oneself	No	Yes
Journalists (J1-J5)	Yes	Focused on reporting as provided by authorities, instead of analysing it		
Lingual experts (English and Urdu both)	Not possible to detect realism and falsification from scripture; only author can verify it			

The second phase of the study was dealt quantitatively to assess the efficacy of RM Technique as per the hypothesis of the study. Johnson and Raye (1981) first introduced the RM Technique for English documentation and later it was factorized by Sporer and



Hamilton (1996). The checklist for Technique was devised by Stromwell and Anders (2003) for confessions in English Language. Later, Willen and Stromwall (2012) used it with a five-point Likert scale. All previous literatures were on written confessions in English language. Therefore, hypotheses were formulated accordingly stating that true confession statements will have more spatial, temporal, perceptual details and realism than false confessions. Likewise, false confession statements will have more affective processes and cognitive processes than true confession statements. These detection criteria were given by Masip, Sporer, Garrido, and Herrero (2005) originally for English Language confessions that was kept constant for detection of deception for Urdu confession statements.

Findings of true confession statement 1 showed that the highest ranked items are cognitive processes, audio details, realism and smell. Whereas, the true confession statement 2 had maximum responses on items of visual details, spatial details, taste and cognitive operations. Both results showed partial acceptance of hypothesis i.e. spatial details, realism and perceptual details such as audio details, smell (for true confession statement 1), visual details and taste (for true confession statement 2) were more present in true confessions. Cognitive operations were found significant in true confession that can be attributed to indigenous differences.

The interpretation of the term ‘cognitive operations’ in Pakistani setting is different than that in foreign literature. The statement for this item ‘*Are the details described comprehensibly in the story?*’ may be perceived differently by different participants of various professions. During data collection and administration of RM checklist, the researcher observed confusion and different connotations of this item. For several participants, cognitive operations meant supporting details of the story, whereas for others, it meant intact rational processes. Similarly, several participants linked it to the next item ‘reconstruction’ and understood cognitive operations as meant for constructing a cognitively comprehensible story that is synchronized with time.

It was hypothesized that the false confessions will have more affective processes and cognitive processes than true confession statements. It was seen that in false confession statement 1, more cognitive operations explained the maximum variance, followed by physical sensations then visual details and realism components. The difference can be connected with cultural and social aspects i.e., our collectivistic environment promotes emotional connotations thus the affective component cannot be eliminated entirely (Shah, & Amjad, 2011). The nature of crime can also contribute to emotional change during crime and detachment from an experience due to its unrealness may diminish affective features (Karstedt, 2002).

The lack of affective details in false confession statement 2 can be attributed to the difference in language from the standard criteria. For example, when reporting about vengeance, an English confession statement will use sentence like ‘*I wanted revenge.*’ by individuals with English as their native language consider it as high in emotional expression. Whereas, when the same situation is reported in Urdu language, the statement will use ‘*mai badla lena chahta tha*’ (I was burning with revenge). The former statement will not be considered as highly emotional by the respondents, as the more affective statement is the latter statement in Urdu language spoken in Pakistan.

Whereas the presence of realism in both false confession statements can be attributed to the true-ness of the crime story scenarios that were given to participating writers who wrote false confessions. The incident of murder and its related details were real in all essence as this was the standard followed in previous researches for generating false confessions (Parker, & Brown, 2000). The confession statement, though false, had signs of realism leading the respondents to not detect the deception. This in-turn supports the idea that deception does occur in confession statements and reinstating the need for an indigenous tool. Moreover, the perceptual details being high in false confessions statements is indicative of two factors: whether people comprehended the items differently than supposed meaning, or the RM Technique needs adaptation for Urdu confessions.

The last objective of the current study was to investigate if professions were detecting deception differently in confession statements through RM checklist. This was explored by conducting MANOVA that showed statistically significant results, signifying that groups showed different levels of detection of deception. Moreover, MANOVA also indicated that 32.1% variance in detection of deception is due to the profession. The mean differences across all confessions are indicative of differences across different professions on detecting deception.

For true confession statement 1, the police officers and psychologists significantly differed from all other professions. For true confession statement 2, the police officers significantly differed. For false confession 1, there was no statistically significant differences. For false confession statement 2, there are highly significant differences between Police officers, English language experts and Journalists.

Such results suggest that most accurate detection of deception is shown by police officers. Ironically, it seems contrary to the law that states that the confession done under 164 CrPC is not to be handed to police officers, and is also contrary to the qualitative inquiry during interviews that police officers had no exposure to confession statements. The results can be explained logically as detection of deception ability is enhanced by the first-hand experience that police officers acquire from the crime scenes, criminals, offenders, suspects and evidences. This experience on a daily bases make police officers more sensitive to the deceptive and truthful elements of a crime scene. The confession statements are, nonetheless, written documentation of crime scene, hence, leading to better deception detecting abilities.

Apart from police officers, English language experts seem to detect deception too. This profession is unrelated to law or legal system but their advantage over other more-related profession is proficiency of the English language used in the original RM itself. During the data collection phase, the researcher had no difficulty in explaining the RM checklist to English language experts because of their ability to comprehend nuances and usage of the items easily. Psychologists and journalists are also on the list of professions to detect deception because the former is an expert at taking notice of cues for truth and falsification behaviours, whereas the latter are responsible for reporting incidents in writing just like a confession statement is a reported version of a crime incident.

### *Implication*

It is part of human nature to lie when faced with adverse conditions. People may also be compulsive deceivers and would deceive out of habit (Grubin, 2005). In a confession

statement, the alleged suspect or criminal is posed by a condition that triggers the deceptive ability of human mind. Under the work of survival instincts, the person may use deception to hide or mould truth to their benefits. The results drawn from this study provide some evidence that deception is a common element in confession statements and that, an indigenous scale is needed to assess this deception.

Presently, the results of the RM checklist imply that components of the instruments are integral features of confessions, however, their manifestation differs for confessions in English and Urdu language. This may be due to the difference in expression of emotions in both languages or because of the participant's lack of proficiency in any of the language while being a part of research conducted.

The results and respective discussions in this study may act as an initiative for research in establishing legal policies by the Senate, National Assembly and Law enforcing authorities. These policies may include proposing a forensic psychologist vacancy in court, considering report of a psychologist as evidence or supporting material for case, using RM checklist as a deception detecting tool etc. Such policies will help in betterment of the legal system and precursor for screening out innocents from alleged suspects by detecting deceptions.

#### *Limitations and Recommendations*

The present study used true confessions from case files but the false confession statements were made to minimize chances of error. However, the credibility of false confession statements was not tested through any statistical procedure. Future studies are recommended to test the credibility and equivalence of false confession statements with true confession statements. Moreover, the sample size of the current study is small. Hence, the results cannot be generalized to the majority of the population. Furthermore, there are no cut off scores developed for the RM Technique by the author and hence, absence of scoring criteria could result in a lack of objective findings. Lastly, the number of confession statements used in this study is less to generalize frequency of deception among Pakistani criminals. This was due to time constraint and accessibility issues in Law of Pakistan. The number of confession statements should be increased in future researches, if possible.

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## **Appendix A: Procedure of writing a confession statement**

The confession statements in Pakistan legal context are not vividly defined in the court of law but the practice to submit a confession can be seen in various cases. The statement of the accused becomes confession only if recorded in compliance of the provisions of Section 164 and 364 of Criminal Procedure Court (Cr. P. C) after observing obligatory formalities and precautions (Appendix A).

In case of a written confession statement or one made in audio recording, section 364 states that the law and the procedure must be translated into any language the person is fluent in. The suspect produced before magistrate for recording confession follow the protocols that are standard for all recorded confessions that are, handcuffs removed, police officers turned out of court room, suspects being informed of post statement procedure, sufficient time for reconsideration and that the confession might be considered as evidence against them.

Later, magistrate asks fixed ended questions and each answer is signed and stamped by the magistrate. Following question must be put to person by magistrate;

1. For how long have you been with the police?
2. Has any pressure been brought to bear upon you to make a confession?
3. Have you been threatened to make a confession?
4. Has any inducement been given to you?
5. Have you been told that you will be made an approver?
6. Why are you making this confession?

The confessing party takes an hour to think on his/her decision to confess. The magistrate returns to the room after sufficient time and asks the person to confess starting from the time he/she woke up on the day of crime till the person slept back the same night. Later, the confession is signed, stamped and returned to the magistrate (Confession and statements U/SS. 164 & 364, Cr.P.C., 2011).

## Appendix B: Laws from Pakistan Penal Code

According to Pakistan Penal Code (1860), deception has been defined in many terms.

1. In Section 24, dishonestly is defined as *whoever does anything with the intention of causing wrongful gain to one person or wrongful loss to another person, is said to do that thing "dishonestly"*.
2. In section 25, fraudulently defines *a person with as intent to defraud but not otherwise*.
3. In section 28, *a person is said to "counterfeit" who causes one thing to resemble another thing, intending by means of that resemblance to practice deception, or knowing it to be likely that deception will thereby be practiced*.
4. In section 415; *a dishonest concealment of facts is a deception within the meaning of this section*.
5. In section 29, *'the word "document" denotes any matter expressed or described upon any substance by means of letters, figures or marks, or by more than one of those means, intended to be used, or which may be used, as evidence of that matter.'*

### Appendix C: Interview Guideline for Lawyers

1. Describe confession procedure?
2. Is it different for different crimes and different jurisdictions?
3. What are the core things to look for in a confession statement?
4. What are chances of deception in confession statements?
5. What are the common reasons for false confession statements?
6. Is there any indigenous or foreign assessment scale/tool used for screening confession statement of truth and falsification?
7. Is there a need for an assessment tool for detecting deception in confession statements?



## Appendix D: Reality Monitoring

### Demographics

Gender:

Qualification:

Age:

Profession:

Read the confession statement attached and please fill in the following and mark a tick on the appropriate option. There are no right and wrong answers. For all questions, use the following rating scale:

**Strongly Absent 1, 2, 3, 4, 5 Strongly present**

S/n o	Criteria	Any further comment (optional)	1	2	3	4	5
1.	Visual details Are visual details described?						
2.	Audio details Are sounds mentioned?						
3.	Smell Are smells described?						
4.	Taste Are tastes mentioned?						
5.	Physical sensations How often is something being described when it is being touched?						
6.	Affective details How clearly are the feelings described at the time of the event?						
7.	Spatial details How clearly is the location of events described in the story?						
8.	Temporal details How clearly is the time of the event described?						
9.	Cognitive operations Are the details described comprehensibly in the story?						
10.	Clarity How clear are the events in the memory of the person telling the story?						
11.	Reconstruction Are the events that took place before and after the event described?						
12.	Realism How realistic is the storyline?						