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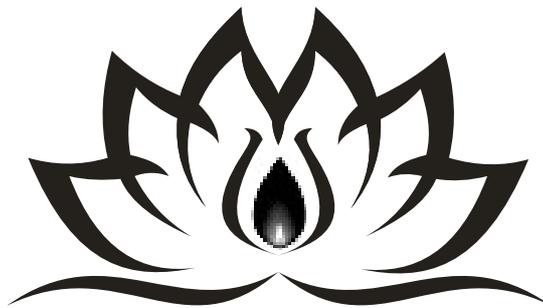
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*Mewar University*

*Knowledge to Wisdom*

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# **Journal of Indian Research**

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## CHAIRPERSON'S MESSAGE

I am happy to share the first issue of fifth volume of the Journal of Indian Research. When it was launched, there were doubting Thomases. Year after year the Journal has maintained the standard and fundamental outlook of interdisciplinary research.

I am happy to see growing number of quality research papers from scholars of Mewar University. Just as motility is the nature of liquid, research and publication is the very soul of an academic institution of excellence. I must complement the research guides who have been putting their best effort in training young minds to dream, think, examine process and publish.

In the current issue, there are papers on as diverse issues as international relations theory and Gandak excavations in Vaishali, Bihar. The contributors belong to diverse universities –JNU, Mewar , Guangdong (China) and Thammasat (Thailand). The contributors are young and old, of different nationalities and different streams. But the underlying theme is common- to fathom human wisdom. It is this coming together of different perspectives by which one can develop ‘fusion of horizon’. The contemporary world is characterized by wide scale fragmentation wrought by divisive agenda propagated by the vested interests to reduce human lives unto mere pawns for monetary and power aggrandizement. Only when our thoughts start “Coming Unto Each Other”, a sane future for humanity can be guaranteed.

On behalf of the Board of the journal and Mewar University, I complement the contributors and the Editorial Team for another stepping stone in quest of wisdom. We look forward for another Volume of interdisciplinary insights!



**Dr. Ashok Kumar Gadiya**



# EDITORIAL

The war clouds are gathering storm. In the east and the west, in the south and the north, the inter-State clash of interest has crossed over the tipping point. North Korea is engaged in a scary duel with the United States of America. The tranquility of the Himalayas has been shaken. Bear and the Dragon, Eagle and the Elephant have the leadership that believes in maximalist realist strategy and not averse to use of force to further the national interest. While inter-State rivalry has intensified during what appears to be a hegemonic transition, intra-State conflict is also rising to an alarming proportion. Internal conflict within Syria, Yemen and Iraq has caused horrendous situation for the civilians. Millions have left their homes and now swarming the Fukuyaman post-historic zone of Europe through land and the sea. With the defeat of Islamic State, the renegades of civilization are scouting for new territory to spread the tentacles of regressive ideology world across. A group based in Mindanao island of Philippines owing allegiance to Islamic State is engaged in violent battle with the government forces since May this year. Radical Islamists based in Central Sahel around Lake Chad have launched deadly attacks all around- in western Niger, Burkina Faso, and Côte d'Ivoire. Nearly five million people have been displaced from the region. Afghanistan is a perpetual hub for sprouting of different version of violent ideologies. Myanmar may become another hub for transnational radical Islamists due to plight of Rohingyas. Nearly 30000 Rohingyas have fled Myanmar for neighbouring countries like Bangladesh and India. They are treated as second rate citizens and the quandary has caused an inroad for Islamists into the cockpit of Asia's ethnic mosaic. In recent times, the emergence of Harakah al-Yaqin (Faith Movement) group is reported from Myanmar.

The violent conflicts are increasingly becoming intra-State. In such a situation, the UN's espousal for the State's Responsibility to Protect (R2P) gains paramount importance. R2P emerged at the UN World Summit in 2005. But, there were concerns from several corners that the bigger and powerful States may use the concept to justify intervention in smaller unstable States for strategic gains. In this issue of the Journal of Indian Research, Rubina Pradhan, a research scholar from JNU argues in her paper, "*The Principle of Responsibility to Protect: Implementation and Response of the International Community*" how R2P emerged as a result of the failure of the international community to prevent genocide in

Rwanda and former Yugoslavia. The world felt the need to act against such crime against humanity when the States either fail to protect its own people or the State itself indulges in crime against humanity. Brazil came up with additional proposal of Right While Protecting (RwP) to restrain big players from intervention with their own agenda. With the growing threat of humanitarian disaster State after State, the principle of sovereignty appears to have gone for a toss. The Westphalian World Order since 1648 based upon concept of sovereignty and non-interference by external powers is collapsing fast and with it, the western hegemony.

The contours of new world order are discernible faintly. Will it be a world of clashing behemoths or cooperative meshworks of Smart City Communities? The world for next few decades is going to be extremely unpredictable. We will use this Journal as a platform to decipher the trends of the coming times as also to deliberate over the right choices of political system for next hybrid generation of humans, other-than-humans and more-than-humans!

— **Niraj Kumar**  
Honorary Editor

# THE PRINCIPLE OF RESPONSIBILITY TO PROTECT: IMPLEMENTATION AND RESPONSE OF THE INTERNATIONAL COMMUNITY

*Rubina Pradhan\**

## ABSTRACT

*The adoption of Responsibility to Protect (R2P) is a historic event in the world politics today which has made the role of International organization all encompassing. It is known that sovereign States have certain responsibility towards its citizens and are expected to act as a protector of people's security. The puzzle arises when the States itself act as criminals and violate its citizens' right thereby treating sovereignty as a license to kill as expressed by Bellamy and Wheeler (2011). The paper aims to look into the origin and need of R2P mostly highlighting on the role of the UN in establishing the principle. It will also discuss in detail the response of international community towards the proposal of R2P wherein we see various stances of leaders regarding its implementation. This will be substantiated by Brazil's proposal of Responsibility while Protecting (RwP). The paper is largely devoted to the implementation of R2P which includes select cases of Kenya, Cote d'Ivoire and Libya. The paper concludes by looking at various debates and criticisms that R2P has generated.*

**Keywords:** civilian protection, Responsibility to Protect (R2P), Sovereignty, State, United Nations.

## INTRODUCTION

Right to Live is one's inherent right. Every nation is responsible for protecting its citizens from atrocities, genocide, ethnic cleansing, and all kind of violence against humanity. The very first chapter of the United Nations talks about the purposes wherein it highlights the concern for human rights and protection of the people. It is a norm that relates to a well established law like human rights, sovereignty, peace and security, etc. Humanitarian intervention, in other words, became more prominent after the post-Cold War era. It has posed great challenge to the basic principles of sovereignty, non-use of force and non-intervention. We often find conflict in humanitarian principles with the above principles of sovereignty and non-intervention. It is known that sovereign States have certain responsibility towards their citizens and are expected to act as a protector of their people's security. But the puzzle arises when the States themselves act as criminals and violate their citizen's rights thereby treating sovereignty as a license to kill (Bellamy

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and Wheeler 2011). The question arises whether such member of international community may be called a legitimate member who fails to protect its own people? If this be so what is the responsibility of international institutions and international community towards human rights protection? All these are discussed at length in the subsequent section.

The paper seeks to focus on the origin and meaning of R2P in the first section. The second section would deal with the reason for the proposal of R2P or the need for it. The third section would deal with the response of international community on the proposal wherein we see various stances of leaders regarding its implementation. This would be followed by the applicability part of it taking various case studies. This will be substantiated by Brazil's proposal of '*Responsibility while Protecting*' (RwP) that will be discussed next. Finally, the paper concludes by looking at various debates and criticisms that R2P has indulged in.

### **MEANING AND ORIGIN OF R2P**

It is known that the United Nations (UN) charter also highlights about the international community's responsibility to use appropriate diplomatic, humanitarian and peaceful means as mentioned in Chapter VI of the charter. Responsibility to Protect (R2P) emerged as reconciling tension in the principle between sovereignty and non-intervention. The debate relating to the humanitarian intervention was ignited as a result of humanitarian crisis in Somalia, Rwanda, Srebrenica and East Timor. These incidents showed a clear gap between what is codified in the UN Charter and what has been practiced. Kosovo was another example which underlined the policy dilemma of complexity, paralysis and illegality (Thakur 2011).

These experiences in Rwanda and Kosovo led Kofi Annan to urge the member states to come up with new consensus on competing visions on national and popular sovereignty and the resulting 'challenge of humanitarian intervention' (Thakur 2011). In the response to this challenge, it was Canadian Foreign Minister Lloyd Axworthy who set up The International Commission on Intervention and State Sovereignty (ICISS) (Thakur 2011). It attempted to resolve the tension between the two competing claims of sovereignty and human right. Therefore, it tried to build a new consensus around the principle that should govern the protection of endangered people (Evans 2008). We can see a significant shift during the 1990s which emphasized on new humanitarian claims in the international society. The UN Secretary General Kofi Annan noted the extent of this change and shift in a speech to the General Assembly in September 1999. Hence, the roots of R2P can be traced back to the statement by Annan. He declared that there was a 'developing international norm' to forcibly protect civilians who were at risk from genocide and mass killing (Bellamy and Williams 2011). However, it was weak norm, therefore, in no time UN Security Council (UNSC) authorized a forcible intervention against a fully functioning sovereign state (Bellamy and Williams 2011). On the other hand the developing country and the global south was worried that humanitarian intervention was a 'Trojan horse' or a rhetoric designed to legitimize the interference of the developed/ strong in the affairs of the weak (Bellamy and Williams 2011).

Taking this as a backdrop, a group of democratic States and Non-Governmental Organization (NGOs) tried to build a consensus around the principle of R2P. It was adopted by the UN General Assembly in a formal declaration at the UN World Summit in 2005. According to the Parliamentary hearing at the UN, the basic principles of R2P are as follows:

- i) States have an obligation to protect their citizens from mass atrocities.
- ii) The international community should assist them in protecting civilians.
- iii) If the state in question fails to act appropriately, the responsibility to do so falls on the international community.

R2P should be understood as a solemn promise made by leaders of every country to all men and women endangered by mass atrocities.<sup>1</sup> It has limited the application of the norm to four types of mass atrocities. Those are: genocide, ethnic cleansing, war crimes and crimes against humanity.<sup>2</sup> This has also been mentioned under International Law by the Rome Statute of International Criminal Court (Weiss *et al.* 2011, pp. 4-5). It does not apply to many grave threats to human security, whether from climate change or disease or from many harmful and ruinous state policies, such as the suspension of civil liberties, mass corruption, or *coup d'état*. There are other human rights instruments, legal frameworks and institutions that are better suited to address these pressing issues (UNGA 2008). Chandler has mentioned R2P as 'right of humanitarian intervention' by outside powers to use coercive power and even military in the name of protecting people (Chandler 2009). But with changing times and growing number of civil conflicts have made the meaning of R2P and Right to Humanitarian Intervention problematic. Former Australian Foreign Minister and the primary architect and leading authority on R2P, Gareth Evans highlights following three great challenges before R2P:

- i) The complexity of defining R2P. What one might think might not appear in reality;
- ii) The role of institutions to carry out its responsibility;
- iii) Mobilizing political will for institutions to act on R2P.

According to ICISS report, R2P has been born out of UN failure to intervene militarily specially for humanitarian purpose, as also its failure to stop mass atrocity and genocide in Rwanda and Srebrenica. The ICISS report itself reflected upon the problems of humanitarian intervention justifying western military intervention in the name of responsibility to prevent, to react and to rebuild (Chandler 2009).

The next milestone in the evolving norm of R2P came in 2009. The first resolution (A/RES/63/308) on the R2P was adopted on September 14, 2009 by the General Assembly. UN, Secretary General Ban Ki Moon released the report "*Implementing the R2P*". He then outlined three principles, often known as three pillars of R2P. These are as follows:

- 1) The responsibility of the State to protect its population from genocide, war crimes, crime against humanity and ethnic cleansing. This is the bedrock of R2P.

- 2) It is the responsibility of the international community to assist the State to fulfill its responsibility to protect, particularly by helping them to tackle the cases of genocide and mass atrocities, build the capacity to prevent these crimes and address problems before they escalate in the commission of the crime.
- 3) In situations where a State has manifestly failed to protect its population from the four crimes, the international community's responsibility to take timely action through peaceful diplomatic and humanitarian means, if it fails, other more forceful means in a manner consistent with Chapter VI (Pacific measures), VII (Enforcement measures), VIII (Regional arrangements) of the UN charter (Ban 2009, para 11.a,b &c).

These became the required principles to be followed by the states and the international community for preventing mass atrocities and helping the state to restore peace and stability.

### **NEED FOR R2P**

The world has seen various atrocities, crimes and sufferings during pre-Cold War period and again during the Cold War when the States and the international community did not pay much attention. In the post-Cold War era, with the increase in the number of civil conflict or intra-state conflict, the international community started focusing on the protection of civilians who become the victims in the conflict. By the end of the 20<sup>th</sup> century, intra-state conflict replaced inter-state conflict and it is civilians which makes the highest number of casualties.

The emergence of various rights group and non-state actors as primary actors in assisting civilians of large scale violence demanded a legal international framework regarding State obligations in protecting civilian population. The State has the primary responsibility to protect its citizen which shows that sovereignty includes responsibilities apart from rights. If State itself fails to protect its citizens from genocide, war crimes, crime against humanity and ethnic cleansing, the international community has a responsibility to take action. Mostly, the UN would respond by intervening in that particular country where human rights are being violated. Firstly, they would try to solve it by preventing further escalation of conflicts, then they will try through peaceful means for example by sending peacekeeping force, and if it fails, they would resort to military or coercive means to end the conflict and restore peace in the country and rebuilt shattered society.<sup>3</sup> Such need started to evolve when the international community failed to act effectively in Rwandan and Bosnian crises in the 1990s. Also, the genocides in Cambodia and Bosnia, and crimes against humanity in Kosovo, East Timor, Darfur in Sudan and the former Yugoslavia have demonstrated massive failures by the international community to prevent atrocities (R2P 2014, a). By this time the world was not prepared to act and was paralyzed by disagreement over the limits of national sovereignty which was given higher value than human life. Therefore, there arose a need for a broadly new norm to guide the international response to mass atrocity and crimes that had become increasingly apparent (R2P 2014, b).

Throughout the 1990s, the UN was divided between those who insisted on the Right of Humanitarian Intervention and those who saw this doctrine as an indefensible infringement upon

State sovereignty. This was the time when Secretary General Kofi Annan warned that the UN risked discrediting itself if it failed to respond to happenings in Rwanda. Therefore, he challenged the member states to agree on a legal and a political framework for action. The failure of the Security Council to authorize action to end ethnic cleansing in Kosovo provoked NATO to initiate an aerial bombardment on its own. The international differences in opinion were discernible - some said that it was illegal as it was done without the Security Council (SC) resolution. Some were of the opinion that (especially NATO members) it was necessary to save the lives of millions of people rather than to wait for the UNSC resolution (R2P 2014, c). To address this kind of deadlock or dual opinion, the ICISS in 2001 came with a report which formulated an alternative principle of “the responsibility to protect” as we have seen in earlier discussion. It focused not only on the legal and moral right of the outside power or international community to intervene but also on the responsibility of all States to protect people who are at risk and vulnerable to atrocities.

Hence, R2P seeks to ensure that never again would the international community fail to act against genocide, ethnic cleansing, war crimes and crimes against humanity.

### **RESPONSE OF INTERNATIONAL COMMUNITY TO ‘R2P’**

The resolution on R2P is an outcome of the UNGA debate to *R to P* in July 2009 in which governments discussed Secretary General Ban Ki Moon’s January 2009 Report, “Implementing the Responsibility to Protect” (R2P 2014, c). This can be considered as a great success because the member states supported this norm and also focused on concrete proposals to take the norm forward. The proposal included strengthening the UN’s early warning capacity and the peace-building commission, building the capacity of the regional and sub regional organizations and adopting criteria for the use of force to prevent misuse (R2P 2014, c).

There were 69 countries who sponsored of the resolution. The Global Centre for Responsibility to Protect drafted an explanation of the discussion by the member states. The introductory document was submitted by Guatemala who demanded amendment to the draft so that all other member could have agreement on it (R2P 2014,c). Five out of nine countries who requested to explain their vote are Venezuela, Cuba, Syria, Sudan and Ecuador. They put emphasis on the resolution that was solely procedural. They complained that it did not commit the Assembly to the implementation of R2P. They focused on the fact that ongoing discussion was required to express in different ways, their opposition to the concept. The major questions put by Hugo Chavez were, who would protect and how would it be done? He also made a point to revise the UN charter to reform UNSC and strengthen UN General Assembly (UNGA). Syria was concerned about common view regarding R2P that needs much steady, transparent and deep study.

Sudan expressed the view that UNGA being the most representative body would and should guide the debate on R2P and refrain other organ of the system to act unilaterally. The above two countries were joined by Sudan, Iran and Nicaragua and emphasized on the fact that R2P can be manipulated by great power to justify intervention in the weaker states, referring to the Principles of the Charter of Non-intervention in Art 2 (4).<sup>4</sup>

Ecuador was concerned with the fact that R2P should reflect the positions of each and every one of the member states rather than being selective and taking prompt decision. Bolivia on the other hand stated that though R2P was very controversial, it was ready to endorse it because it is important for the State to protect its citizen in order to ensure its own survival. In case of Rwanda, President of the UNGA did not give it an opportunity to express something that majority of members viewed within UNGA (R2P 201, c).

Having considered the views of delegates, Secretary General Ban Ki Moon assured them of wide ranging consultation with member States, relevant departments and agencies, regional and sub-regional organizations and civil society on several implementation issues that arose during the debate. He also said that everyone should be united by the ultimate purpose of R2P i.e. to save lives of the population by preventing mass violation of human rights.

Therefore, it can be said that most of the governments supported the norm of R2P. They pledged to take collective action lamenting on the failure of international community to prevent genocide in Bosnia and Rwanda. Most of them affirmed that State's prime responsibility is to be to protect its citizens which many States fail to do and to enhance the capacity of a sovereign State as the foremost priority. Even then there were some group of States that expressed their concern as an instrument for military intervention in the much weaker states.

Though the need for the UNGA to continue considering R2P and its implications has been included as a reference in the UN Summit Outcome document, till now there is no formal intergovernmental process at the UN to implement it. In 2006, world leaders committed that International Community will be prepared to take action through UNSC in a timely and decisive manner on a case by case basis when States are manifesting failing to protect their population. This acceptance of Security Council was made vide Resolution 1674.<sup>5</sup> There still seem to be certain dilemmas as to how to put R2P into practice or when should it be applied and what should be the measure in using R2P outcome.

## **IMPLIMENTATION OF R2P MANDATE**

R2P since its proposal has been rarely used except in very few cases and extreme ones like in Libya in order to prevent and stop mass violation of human rights and atrocities. It can be seen that how the emergence of R2P norm has strengthened the capacity of international community to act decisively. Coalition of the Willing which is backed by the UN authority has worked effectively to prevent mass atrocities. It is not only Libya but also in Cote d' Ivore, Kenya and South Sudan where international community have acted for maintenance of international peace and security through monitoring, preventive diplomacy and military actions whenever needed. In all these cases the State government has failed in their responsibility to protect its citizen. Security challenges are so great in these States that the populations are in great danger in their own land. Let us now see how the UN has used R2P mandate in each of these cases.

**a) Kenya**

There was an ethnic violence in Kenya post- 2007 Presidential election. More than 1,200 people were killed and 600000 were internally displaced (Albright and Williamson 2013). It was under the auspices of the African Union that the then UN Secretary General Kofi Annan mediated for emergency measures which could stop further escalation of violence. With the help of the Security Council and Kenyan civil society, Annan was able to mediate between the two rival political parties. As a result of which a coalition government was formed and ethnic conflict was eased temporarily (Albright and Williamson 2013).

As international community was observing it, a referendum was carried on a new constitution in 2010. US department worked closely with the Kenyan government, African and European officials and the UN (ibid). The constitution won approval by 2/3<sup>rd</sup> majority and in March 2013, voting was conducted peacefully (Albright and Williamson 2013). Though the election outcome was disputed, it had been dealt with constitutionally.

Even today Kenya is ethnically divided and has an image of blur stability. The R2P norm and its second pillar made it possible for the international community to intervene and settle dispute peacefully thereby bringing an end to large scale public atrocity. Changes might occur with growing awareness about State's responsibility to protect its citizens, for democratic growth and national reconciliation.

**b) Cote d' Ivore**

The country witnessed a clash between two factions in 2010 over the result of December Presidential election. It was between forces loyal to opposition Presidential candidate Alassane Onattara, the winner of the balloting and those supporting incumbent President Laurent Gbagbo, who refused to yield power in accordance with constitutional procedures. Hence, violence erupted that killed hundreds and displaced 450000 people (Bellamy and Williams 2011). International community having witnessed this had no other option than to give mandate under the principle of R2P to save the people from atrocities at the hands of the fighters loyal to Gbagbo. The UN and France refused to fulfill this demand, thereof, the peacekeeping force was withdrawn from the country but the crisis was still on. Therefore, it was the coalition of the international and regional actors, including France, the Economic Community of West African States (ECOWAS), the African Union (AU) and the UN which helped to put an end to violence and humanitarian crisis in the country (Bellamy and Williams 2011). Sanctions were imposed which weakened the regime. At last they had to resort to airstrike (using 3<sup>rd</sup> pillar of R2P), when opposition forces had swept most of the country. Finally, it was a success, peace was restored and rightful winner of the Presidential election had assumed office. Gbagbo, on the other hand is waiting prosecution at the ICJ, Hague. One thing to notice here is that it was for the first time that International Criminal Court had taken a case against an individual and taken him to the custody. Gbagbo had committed crime while serving as a Head of State.

The success of restoring order and peace cannot simply be given to the UN but also to the local

population who had a clear desire for change. Also, it was possible because of the involvement and support of various international actors and regional organizations.

### c) **Libya**

Libya is the most important case to be studied as it has a huge significance in the world politics in terms of the application of R2P mandate. It was repeatedly applied in Libya in 2011. The situation became worst when the opposition challenged the legitimacy of the country's long-time dictator, Col. Muammar al Gaddafi. He expressed his intension to commit crime and human right violation by announcing to the resident of Benghazi that his forces would show "no mercy" to the rebels to whom he called "cockroaches" (R2P 2014, d). The speech was broadcasted on 22 February 2011 when he stated that he would die a martyr rather than step down. Demonstration spread to all other cities from the capital city of Benghazi. This resulted in violent conflict between government forces and the oppositions when the government forces started attacking from helicopter gunship (Alfredo and Williamson 2013). According to weiss & Thakur, Libya was the first road test for the coercive element of the norm of Responsibility to Protect (weiss & Thakur 2013).

The international community having witnessed the domestic conditions decided to impose R2P's second pillar of intervention. When the Arab and the Western powers urged the UN, the Security Council voted to authorize No Fly Zone on March 17 2011 (Weiss, Thakur, *et al.* 2011). It also tried all the necessary means and measures to protect civilians. Having witnessed large scale violation of human right, atrocities among the populace, the U.S along with NATO intervened with air strike. Still Gaddafi was not willing to back out. Situation being uncontrollable, in June, the ICC issued a warrant to arrest Gaddafi and his son who were responsible for spreading turmoil in the State.

Till August 2011, the rebel coalition triumphed after continuous and deadly fighting between the opposition and the forces led by Gaddafi. According to Albright and Williamson, there are three facts that explains the international response to Gaddafi's threat of mass atrocity:

- i) Huge capacity of Libya's armed forces and country's proximity to Europe and allied military bases aided the military aspects of the operation;
- ii) All the neighbours including a regional organization—Arab League endorsed the action in order to put Gaddafi in political isolation;
- iii) While the government of Russia and China were very reluctant to support intervention in Libya, they abstained rather than vetoing UNSC resolution

(Albright and Williamson 2013)

All these factors led the international community to intervene and apply R2P to calm down the situation without which it would have been difficult to put a halt to humanitarian crime. This is a positive case study of R2P without which Libya would have been a graveyard for millions of

civilian dead bodies killed by own State. Libyan State itself failed to protect its citizen according to the first pillar of R2P. Thereafter the second pillar was introduced as a next attempt which utilized diplomatic missions and other non-military measures. They enforced No Fly Zone which saved millions of people. The International Commission of Enquiry on Libya reported that NATO conducted a highly precise campaign with a demonstrable determination to avoid civilian casualties (Albright and Williamson: 2013). The UN Security Council then adopted Resolution (UNSCR) 1973 ensuing military intervention in Libya. This has been widely termed as an event of historic importance (Dembinski and Reinold 2011). It established Coalition of the Willing with NATO members to spearhead all necessary measures to protect civilians under threat in Benghazi.

It cannot be denied that Russia and other States criticized NATO for allegedly using the threatened humanitarian crisis as a pretext of regime change in Libya. It has also been criticized that instead of limiting its military operation, NATO went beyond to affect regime change. Here arises another pertinent question—was it a planned intervention? Or was humanitarian intervention purely for humanitarian cause? This dilemma strikes our mind and no easy answer would be forthcoming. Others who supported NATO's action said that the situation had become so worst that the only option left was to overthrow him. There are various opinions and dilemma that surrounds the validation of R2P. There are other cases too where R2P has been applied and is questionable. Some examples are ongoing crisis in places like Syria, South Sudan and Democratic Republic of Congo (DRC) wherein international community has responded as R2P principle. Despite this, these places are still the worst affected zone and everyday there are reports of human rights violation, many deaths and thousands displaced. R2P has not yet been able to take its root so as to end violence once and for all in the conflict ridden area.

Sri Lanka can be another example where the international community failed to respond after unimaginable mass atrocity and ethnic cleansing. Both the rebels and government failed to protect their citizens. Despite this, the UNSC, High Commission on Human Rights and General Assembly held no formal session on Sri Lanka. They neglected to take timely action when it was apparent that large scale human right violation, war crime and ethnic cleansing are taking place (Albright and Williamson 2013).

There are many question that arise regarding R2P after going through the above cases like, “is it the interest of the big powers to intervene or is it really a ‘humanitarian intervention’? If so than why did it fail to protect Sri Lankan citizens and is still unable to solve the crisis in Syria, South Sudan and DRC? These are the questions that trouble our mind and are debated worldwide seeking proper answers. These flaws may also be the reason for Brazil to come up with a new norm of “Responsibility While Protecting”.

## **BRAZIL'S PROPOSAL FOR RESPONSIBILITY WHILE PROTECTING (RwP)**

Brazil came to be known as ‘norm entrepreneur’ (Berner2013) with the proposal of ‘Responsibility While Protecting’. It was Brazil's President Dilma Rouseff who declared in a speech to UNGA on 21 September 2011: “....Much is said about the Responsibility to Protect,

yet we hear little about Responsibility in Protecting. These are concepts that we must develop together” (Berner 2013). The following month, diplomats in the Ministry of Foreign Affairs of Brazil drafted a concept paper titled “*Responsibility While Protecting: Elements for the Development and Promotion of a Concept*”. It was presented to the UNSC on 9 November 2011 by the Brazilian UN Ambassador Maria Luiza Ribeiro Viotti for discussion.

This was the first time that a country brought a critical global norm that would really shape the world order. This was no doubt built on the principle of R2P to which Brazil adheres to; but at the same time it also wants certain norms and principles to be followed while protecting people. This is especially with regard to the failure of the international community to act immediately during the 1990s while genocide took place in Rwanda. It focused on the fact that R2P might be used for some other ulterior purpose like regime change rather than real humanitarian cause. This makes international community difficult to attain its objectives of protecting civilians. In order to counter this, Brazil suggests complementing the R2P principles via the principles of the proposed RWP which are:

- i) All three pillars of R2P must follow a strict line of political subordination and chronological sequencing;
- ii) Use of force must be preceded by a comprehensive and judicious analysis of the possible consequences of military actions;
- iii) Use of force can only be authorized by UNSC according to chapter VII of the UN Charter or in exceptional circumstances by General Assembly in line with its resolution 377 (V);
- iv) Authorization of the use of force must be limited in its legal, operational and temporal elements;
- v) To ensure proper monitoring and assessment of the interpretation and implementation of the RWP, “enhanced SC procedures are needed and it is aligned to ensure the accountability of those to whom authority is granted to resort to force”.

(Berner2013)

All these have been stated by other members also but the only thing is that Brazil put it into RWP framework and it was soon after Libyan controversy. Brazil had heavily criticized NATO’s mission in Libya which was purely for regime change rather than for protecting civilians that greatly made the principle of R2P controversial (Powers 2015). Brazil along with China, Russia, Germany and India chose to abstain from voting for the resolution. Although it abstained, it was quite supportive of the resolution. In the months that followed, Brazil was dissatisfied with the way NATO countries such as France, the UK and the US interpreted the Resolution 1973 in different way. Instead of stopping Gaddafi from attacking civilians, NATO reinterpreted the purpose of the Resolution 1973 and turned it from a mission to protect civilians into a mission for ousting Gaddafi. They intervened for the change of the regime led by Gaddafi. At the same time Russian representatives spoke about a “western crusade” and an “oil war” in Libya (Berner

2013).

Brazil's proposal for RWP was a tit for tat response to Libya and also Syria. Syria was a burning issue in the UNSC when Brazil proposed RWP wherein Brazil again abstained along with Russia and China. Brazilian President chose not to offer any new ideas on how to take the norm of RWP forward. Hence, she decided to bury the concept. Its political top leadership saw RWP as a loss making enterprise and political pay offs seemed far and uncertain while the political costs were real and immediate (Berner 2013).

Though RWP appeared to be a promising initiative by Brazil that would have bridged a gap that was visible in the global debate about R2P, it backed out in the end. Some of the important questions that have erupted were regarding monitoring and accountability mechanism in the Security Council, the need to develop the discussion on the use of force according to the third R2P pillar in order to understand better the use of force to protect civilians, the kind of operational tensions, legal dilemmas and normative challenges that arise from it (Welsh 2011).

## **CONCLUSION**

Summing up, it can be argued that R2P as an evolving norm that still has various anomalies despite a clear proposition to protect humanitarian cause as discussed above. It has reshaped the terms of the debate between those who support and oppose humanitarian intervention. R2P emerged as a result of the failure of the international community to prevent genocide in Rwanda and former Yugoslavia. The world felt the need to act against such crime against humanity which in 2005 emerged as R2P.

Since its non-binding adoption of principles of R2P, the international community has tried to implement this in various cases as discussed above. In some cases it came out to be a success like in Kenya and Cote d'Ivoire at least to some extent but in some like Libya and Syria and also Sri Lanka, R2P has become too controversial. There emerged various counter-arguments from the countries on the implementation of this principle. Though it is rightly said in the first pillar that State's foremost responsibility is to protect its citizens against any atrocities and crime against humanity, some States fail to maintain this principle. Post-1990s has witnessed increase in intra-state conflict and ethnic conflicts in many States have caused untold sufferings to citizens and even non-citizens. The international community including various non-State actors could not turn off their eyes about all these and thought of doing something for the maintenance of international peace and security and protection of human rights. Thus, the norm of humanitarian intervention evolved. The very word 'intervention' raised serious questions in terms of protection of civilians. In order to ease the criticism, the UN adopted the norm of R2P which was introduced in 2005. Merely giving R2P as a name to humanitarian intervention will not solve the puzzles and various questions involved in it regarding its implementation. Sometimes it is seen that the big powers and the coalition of willing are actually trying to fulfill their own narrow national interest by intervening in conflict-ridden countries. The intervention and mostly the third principle i.e. military intervention or the use of force has been more complicated. It is here that most of the states

disagree on. In Kosovo, the NATO members decided to bombard even without the UNSC resolution in the name of humanitarian crisis. NATO's mission in Libya is another example where the NATO intervened and thereafter Gaddafi was killed in a cold-blooded manner. In case of Sri Lanka, the international community didn't even respond until recently when it was held responsible for war crimes by the UN.

R2P is not only against the practices of politics of the national sovereignty but it is against the fundamental principle of the UN i.e. non-intervention in national sovereignty of others. Given the fact that UNSC is the ultimate body for the implementation of R2P, there must be the binding law so that P5 may not act taking into consideration their national interest. If there is no consensus among the P-5 on how R2P should be followed, then it will never survive as a viable legal or normative principle of international order (Holmes 2014).

The problem with R2P is that its principles are not commensurate with the reality because in every intervention, it is the major power that intervenes with narrow political interest. The national interest of the western countries can be seen in all the above cases wherein they justify their intervention as purely for humanitarian cause which actually is not. This is because they themselves involve in war by using coercion and forceful means. Brazil had correctly put the new norm of R2P as even the peacekeepers should know how to behave when they are on the conflict zone for protecting the people and the implementation criteria should be laid out. But this principle could not be taken forward because of difference in the ideas among the politicians and most importantly the unwillingness of the other countries to back it. The West was in serious opposition to it as a result it had to abort prematurely.

## NOTES

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# STUDY OF THE MATERIAL CULTURE AT CHECHAR-QUTUBPUR

*Dr. Arun Kumar\**

## ABSTRACT

*Chechar -Qutubpur is a multi cultural archaeological site .The cuttings of the mounds throw important light on the material cultures of the past. The settlement started here at the later Pleistocene period and continued up to the medieval period. The simple agro-pastoral society was developed by the late Mesolithic men, the early settler. The early settlement gradually developed into complex urban society at the NBPW period. The evidences of the massive structural remains and other cultural assemblage give us a lot of information about the urban life. Each settlement pattern has its own cultural and technical identity.*

**Keywords:** ceramic, corded ware, ecology, flora and fauna , lavigated clay, oven, settlement, strata.

## INTRODUCTION

The cutting at Chechar-Qutubpur (25° 36' 30''N; 85° 21' 15''E) during the year 2013-14 has yielded very exciting results of the settlement patterns in the Gandak plain. The mound is about 20km south east of Hajipur, on Hajipur -Mehnar road. It is 3km south of the Chechar chowk. The archaeological mound spread on the levelled ground, along the northern bank of the Gandak River. During the flood season, the mound is about 2m high with respect to the water table of the river. It is 800m wide in north-south and about 2km long in east -west direction. The site presently lies covered under the banana plantation and local habitation. The site is divided into several blocks, by the local roads. The lower road goes from the east to west (Khalsa to Gopalpur) along the river bank. The mound is divided into two unequal blocks by these roads, the northern mound and the southern mound. Most part of the southern mound has been eroded by the Gandak river, whereas, northern mound remains intact. The structural and other cultural remains are visible in the section of the river, due to the erosion.

## PREVIOUS WORK

The archaeological importance of the village and its neighbourhood came to light due to the river erosion. Local villagers, who were aware of the heritage and cultural remains, collected large number of the archaeological remains from the river bed. Shree Ram Pukar Singh, D.P

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Sinha and heritage lovers took active role for the collection of the archaeological remains. Shree Haribans Narayan Singh, the then MLA, Deep Narayan Singh, the then minister, Shree Prabhakar Jha, the then DM, Vaishali took deep interest in the heritage of Chechar-Qutubpur. Dr. B.P Sinha, Dr.R.S Bisht, Y.K Mishra and other historian and archaeologist also visited the site, time to time.

The Archaeological Survey of India, under the Superintending Archaeologist R.S Bisht, excavated the site in 1977-78, in limited area. He was assisted by D.P Sinha. Second excavation was conducted in 1988-89, about 1km. west to the Bisht excavation site. During the first excavation, the archaeological remains provided light on the pre-historic cultural sequences and the settlement that had continued up to the Gupta period. It is one of the pre-historic key-site in the north Bihar. The continuous cultural settlement pattern from late Mesolithic, Neolithic, Chalcolithic, NBPW, Sunga, Kushana and Gupta phases are the characteristic of this site. The Pala sculptures of the Buddha and other deities were found here. The pre-Mughal glazed ware also were recovered from the surface.

Excavation was conducted again in 2013-14, by the Directorate of Archaeology, Bihar. During this period, excavation was conducted under the guidance of Sh. Satyadeo Rai and technically assisted by the author.

The Gandak plain is archaeologically very rich. Very ancient archaeological remains in the Gandak plain have time to time, come to light here. There are hundreds of the ancient mounds explored by the author. Chirand and Panr are the excavated pre-historic sites. Manjhi, Rambhadra, Vaishali, and Kataragarh are other excavated early metal sites in this plain.

## **ECOLOGICAL BACKGROUND**

The Gandak river flows close south to the site. A big river island called Raghapur is situated south of the Gandak and north of the Ganga rivers. In the flood season, both rivers meet together. The Ghaghra, a paleo-channel flows about 4km. north of the site, crossing the low land area called *chaur*.

### **Objectives**

A large scale excavation was necessary for the following objectives:

- (i) to collect the organic materials and biological remains;
- (ii) to know the antiquity, cultural stratigraphy and the cultural sequences of the site;
- (iii) to study the nature of the settlement and subsistence patterns;
- (iv) to understand its regional affiliation with other contemporary settlements in the middle Ganga plain.

**Cuttings (2013-14)**

There are three trenches that have been laid-out on the mound. Each trench measures, 10x10m. First trench lay-out at the upper northern mound, 100m east to the Siva temple and 100m west to the trench dug -out during 1977-78 excavation session. The second and third trenches have been laid-out near the mosque, just south below the river section. It is 50m south to the Bisht trench and 150m south east to the first trench of this year. The major features of the three trenches are described below.

**CHK-I**

The maximum deposit of 4.25m was encountered in the trench with 7-habitational layers at different levels, overlying the natural silt deposit. The evidences of early metallic cultural settlement have been recovered from the lowest level, rested on the natural deposit.

**CHK-II**

We found a lot of information from this trench about the pre-historic cultural remains. Nine habitation layers have been exposed in this trench which are related to the different settlement patterns. The maximum cultural deposit of 4.50m was encountered in this trench.

**CHK (III)**

This trench was partially excavated, about 1m deep from the ground level. Several structural remains were exposed in this trench.

The layers, exposed during the excavation in CHK-II throw the light on the settlement patterns. The details of the finds in various layers of CHK-II are described below.

**Layer-1** is pale brownish in colour, sandy texture and loose in composition. The contents of this layer are potsherds, roots, grasses, grits and brick bats etc. The total thickness of this layer is around 0.25m.

**Layer-2** is reddish brown in colour, semi-compact in composition and fine texture of *khadar* alluvial soil. The contents of this layer are brick pieces, potsherds of the Red ware (RW), Black slipped ware (BSW), Black-and-Red ware (BRW), Grey ware (GW) and Northern Black polished ware (NBPW). The thickness of this layer is about 0.65m which runs horizontally. The brick-made floor was encountered in this layer.

**Layer-3** has a thickness of about 0.65m. It is yellowish to dull brownish in colour of fine texture alluvial earth with very fine particles of the mica. It contains large number of potsherds and brick bats. Good number of antiquities has also been recovered from this layer. The brick-made structural activity was encountered which belongs to the Kushana and Gupta phases. Brick structural activities have been already witnessed in this layer with its foundation. Ten structures have been traced during the excavation. Two parallel structures running across east to west then turned towards north direction. Other structures running across the north to south

and east to west direction. The walls of this phase were built with bricks of 35x23-25x05cm in dimension.

**Layer-4** is yellowish grey in colour, semi compact of fine texture alluvial soil. It contains large number of potsherds of RW, BSW, BRW, GW and NBPW, bone pieces of animals, birds and fish with antiquities. The thickness of this layer, which runs horizontally, is about 0.65m. Brick built structural activities was not encountered in this layer.

**Layer-4A** is yellowish in colour. It is alluvial soil of fine texture which contains fine particles of the mica. It is semi compact in nature and contains large number of burnished and unburnished RW and BRW both; BSW, GW, NBPW sherds; bone pieces and antiquities. A mud floor was traced, having soot marks with ash patches and charcoal bits. The thickness of this layer is about 0.25m

**Layer-5** is brownish or dull yellowish in colour and compact in nature. It is composed of silty alluvial materials, very fine mica particles, ash patches and charcoal bits. It contains large number of potsherds of burnished/unburnished RW and BRW; BSW, GW; bone pieces and antiquities . The sherds of NBPW have disappeared in this layer. Burnt lumps of the clay with reed impression have been found in this layer. Two successive habitational mud built floors have been traced in this layer . It was made with yellowish and reddish hard clay. Soot marks ,ash patches and charcoal bits have found on the floor . The thickness of this layer is about 0.60m.

**Layer-6** is brownish in colour and semi compact in composition. The successive habitational mud floors with soot marks, ash patches, fired spots, post holes and charcoal bits have been recovered. The potsherds of burnished/unburnished RW, and BRW; BSW, bone pieces, antiquities and burnt lumps of the clay are also found in this layer. The evidence of an elongated hearth is important finding. The thickness of this layer is about 0.40m.

**Layer-7** is brownish or dull yellowish in colour and compact in composition. The successive habitation mud floors have been traced out at different depth in this layer. The floor was made of yellow, red and grey mixed earth with jelly like 2-3 cm thick deposit of the whitish hard material. Perhaps it was made of the mixture of lime, kankad nodules and shells. Pot holes, ash patches, soot marks, charcoal bits and burnt clay are found on the floor. The potsherds of burnished RW, BRW and GW; unburnished RW and BRW, BSW; bone pieces, stone nodules, microlithic tools with other antiquities have been found. The thickness of this layer is about 0.15m.

**Layer-8** is yellowish in colour and semi compact. It contains kankad nodules, mica particles and yellowish silt patches. The whitish jelly- like hard materials is also present in this layer. The successive habitational mud floors have been traced in this layer . The traces of the post holes, soot marks, burnt marks, ash patches, bits of charcoal and other remains of the human activities were noticed on the floors .The remarkable observation is that the sherds of BSW have totally disappeared but other wares continued in the tradition. The bone pieces, shells, burnt clay and antiquities of the different materials found .The evidence of an elongated hearth has have been also been traced in this layer. The thickness of this layer is about 0.32m

**Layer-9** is deep greyish in colour of fine texture of silty alluvial soil with the presence of calcareous nodules and mica particles. It contains the potsherds of burnished RW, BRW and GW. The potsherds of the unburnished RW and BRW have been found in good number. Small bone pieces of the small animals, birds and fishes; stone nodules, microlithic tools, stone raw and waste materials, antiquities, burnt clay etc. were notable contents.

The frequency of potsherds gradually decreases according to the depth whereas the kankad nodules increase in number and size both. The thickness of this layer is around 0.70m.

**Layer-10** is deep greyish in colour. It is silty alluvial soil without any evidences of the cultural activities. It is around 0.50m thick deposit, which rested at the depth of 4.50m to 5m from the ground level.

**Layer-11** is yellowish in colour of compact clayey soil. It is natural soil.

### **Cultural and Structural Phases**

Chechar-Qutubpur is multi-cultural archaeological site. The archaeological evidences found during the last three sessions of the excavations, indicate that the entire deposit belong to the Meso-neolithic phase to the Pala phase.

The cultural chronology at Chechar-Qutubpur may be characterized in following periods :

- (I) Meso-neolithic - Aceramic phase.
- (II) Neolithic - Ceramic phase.
- (III) Chalcolithic - Metal phase.
- (IV) NBPW - Iron phase.
- (V) Sunga - Kushan Structural phase.
- (VI) Gupta phase.
- (VII) Pala phase.
- (VIII) Pre-Mughal glazed ware phase.

Structural activities have been noticed on the surface, a section of the river and during the excavation. The kiln fired bricks have been used for the structural activities.

### **Structures**

The evidence of the structural activities was noticed in the section of the river, during the agricultural activities and the excavations. The brick made structural phases appear to have started here during the Sunga-Kushana period and continued up to the Pala period. The entire site is covered with massive brick structures during these periods. Other micro structural evidences were found in Period-II, III and IV like mud floor and pot holes.

**Floor**

The evidences of the brick floor with a thickness of around 10cm. were noticed just below the humus layer. This hard floor is made of brick bats, brick nodules, and stone bats, shurkhi mixed with lime and waste materials. Other floors were traced in Period I and II which was mud made, yellowish in colour.

**Hearth and Oven**

The first elongated hearth measuring 1.90 x0.75m, attached to the northern and southern section of the trench CHK-II, was found exposed at the depth of 3m. The second rectangular hearth measuring 0.64x0.18m attached to the southern section of the same trench was exposed at the depth of 3.82m. A circular oven measuring 0.47m was found attached to the western section of the first quadrant. It was exposed at the depth of 4m in Period I. Charcoal bits, bone pieces, ash and potsherds have been recovered from these hearth and ovens.

**Pits**

A big pit has been recovered in the trench-CHK-II. It was attached to the southern and western section of the trench. This pit appear just below the massive Kushana structure. It belongs to the NBPW phase. It contains potsherds of NBPW and its associated wares, big size circular terracotta pendant and other antiquities, ash, charcoal bits, bone pieces etc. It starts at the depth of 1.77m and close at 3.30m. Another pit was traced in the south east portion of the trench. It was cylindrical in shape. It started from the NBPW phase in Layer-4 and continued up to the natural soil.

**House Plan**

The brick structures have been thoroughly exposed during the excavation. It throws light on the house planning of the Sunga-Kushana and Gupta periods. The houses were constructed on a regular plan. The houses were built with kiln fired bricks. Mud and shurkhi -lime mortar was used for the bonding of the bricks. The people lived in huts during the Period I, II and III. The reed impressed daubs and post holes give us important information about the house plan of that period. The people lived in circular, semicircular or rectangular houses which were made of bamboo, leaves and mud.

**Ceramics**

The ceramics from Chechar-Qutubpur can be divided according to the cultural phases with developing generations. The handmade RW was first generation ceramic, invented during the early Neolithic phase. It was crude type pottery, made in coarse fabric. The second generation ceramics- BRW and burnished GW, invented during the middle phase of the Neolithic culture, was introduced for the first time in the pottery tradition. The BSW was invented during the end of the middle phase of the Neolithic culture. It was third generation ceramic. The turn table and wheel (chak) used for the making of different types of the wares have been found. The Red

ware continued in the tradition. The surface were treatments first introduced in the ceramic industry. Different shades of the were pigment used for the surface treatment. The slipping, burnishing, scooping, rustication, painting and different decorative techniques were used for the surface treatment. RW, BSW, BRW and GW continued in the Chalcolithic phase with some variations. The NBPW was fourth generation ceramic, invented during the Iron Age of Period IV. During this phase, most of the pottery was built on the wheel. Dishes, bowls, basins, lipped basins, lids, vases etc. were dominant shapes. Other previous ceramics continued with medium to fine fabric. Metal were used for the pot making in fifth generation ceramic in Period-V. The Black slipped ware, Black- and -Red ware, NBPW and Grey ware disappeared from the tradition, only Red ware continued in the tradition. The sixth generation ceramic was Pre-Mughal glazed ware was introduced during the Period VIII. The Red ware production continued throughout between Period-I to Period- VIII.

The typology of the ceramics has been classified on the basis of the surface treatment and the fabric. The wares are made of alluvial clay, ranging from medium to fine fabric, with or without gritty inclusion. The sand and mica particles have been profusely used as tempering materials but occasionally, gritty materials were also mixed, generally in the early Neolithic and middle Neolithic potteries. The big wares are mostly shaped on slow turn table and the neck with rim portion, luted with the body. The primitive wares are handmade, whereas, later wares have been made on the wheel. The wares are heavy and thick body-storage jars, vessels, spouted vases, different size vases, lipped and channel basins, bowls, perforated legged bowls, beakers, dishes, handis etc. In most of the cases the pottery been has treated with slip or wash of red or other pigments on the smooth surfaces. The wares are well fired probably using a closed kiln. Though the ceramic industry predominantly constitutes of the Red ware.

### **Red Ware**

The Red ware potteries of the Gandak plain are normally heavy and sturdy with medium to fine fabric and uniform red surface. This kind of ware found here belongs to early Neolithic phase to the modern time. Various shades of the red colour are found on this ware ranging from dark to bright or sometime brilliant red. Majority of the pots of this ware are treated with thick slip (mostly in Neolithic & Chalcolithic phase) but a good number of shreds have been found without any surface treatment. Thick sturdy storage jars of splayed out rim and long concave neck are more frequently encountered in this type than any other ware. Ribbed or mud rustication have been applied on the lower outer portion of the big jars and vases.

The other shapes constitute large and medium globular pot with constricted neck and beaded rim(iron phase), vessels, vases, handi, bowls, lipped bowls, perforated legged bowls, basins, dish, dish-on-stand, goblet, beaker, ladle, lids, lid-cum-bowls, pans, carrineted handis, spouted vase, surahi etc. The Red ware dominated pottery in each period. The smooth surface was occasionally burnished in the Neolithic and Chalcolithic periods. The section of the early potteries is thick and rough.

### **Painted Red Ware**

The painted Red wares are of the same quality and typologically identical with the fine Red ware but classified separately due to the painted motifs. The smooth surface was occasionally burnished and the slip was applied carefully to serve as a background for painting. All the decorations were done in ochre colour on the red surface. It was post-firing ochre painting. The designs used are solid dots, circular, semicircular, lunar or star like forms. Sometimes, other geometric designs are found in different colours, like concentric circle, lines, broad bands, crosses, spirals, loops, zigzag lines, lattice designs etc.

### **Perforated Red Ware**

The perforated pottery is the most enigmatic of all the north Bihar ceramics, as far as its use is concerned. It mainly consists of bowls, legged bowls, footed bowls, handis etc. Most of these pots wear perforations all over the body. This type of pottery has been found from the Neolithic, Chalcolithic and Iron Age strata.

### **Buff Ware**

This ware with buff core and surfaces are made of levigated clay. This type of ware has been recovered from Chirand, Panr, Hajipur, Salempur, and Vaishali. Its sherds are lesser than the red ware sherds. Handi and big vases are important shapes. Surface treatment is not applied on it

### **Burnished Grey Ware**

This ware with blackish core and surface are made of well levigated clay. Its surface is treated with thick coat of the blackish pigment, which is smooth, slippery and bright. The inner surface of the pots have scooping marks. The neck portion is luted with the main body. Most of the pots were handmade. It is found from Neolithic to Chalcolithic strata. Its important shapes are -vases, bowls, perforated bowls, dish-on stand, bowl-on-stand, dish -cum-bowl etc. Its section is porous and black.

### **Black and Red Ware**

The Black and Red ware have been found from the Neolithic horizon to the NBPW horizon continuously. Burnished and plain Black and Red ware have also been found in good number. The surface of burnished Black and Red ware was treated with thick coats of red (exterior) and black (interior) pigments. Sometimes both surfaces are treated or sometimes only exterior treated but interior is devoid of surface treatment. It bore scooping marks only on the interior side. Outer surface of some potteries were decorated with painting and geometric designs of incision. The important shapes are Dish-on-stand, storage jars, vases, bowls, dish, basins, lipped bowls etc. The section of the early potteries is thick and rough but the later potteries have thin and smooth section.

## **Black Slipped Ware**

The Black slipped ware has come to the tradition at Chechar-Qutubpur during the end of the middle phase of the Neolithic culture and continued till the Sunga period. After this period, it suddenly disappeared from the tradition. This ware with grey or blackish core and surfaces are made of well levigated clay. It was treated with black slip or wash. Sometimes slip has peeled off from the surface. It's important shapes are -dish, plate, bowl, vase, lid, dish- on-stand, lipped bowl etc. The section of the early pottery is porous and rough with blackish or greyish in colour. The section during the NBPW period is smooth, dense and greyish in colour.

## **Grey Ware**

The Grey ware with grey section and surface is made of well levigated clay. It is medium to fine fabric. It come in tradition at the time of later Neolithic phase and continued up to the Sunga period. Dish, bowl, vase etc. are important shapes.

## **Corded Ware**

The corded ware pots bears cord-impression mostly on the outer surface either partially or fully. Impressions are made with a paddle wrapped with a cord or, remains over the surface as a byproduct while beating and shaping the pot in leather -hard condition with a cord -wrapped paddle. Sometimes tortoise shell was used for the impressions. Author has noticed some potsherds during the excavation at the Panr, Salempur and Chechar having tortoise shell marks on the outer surface of the pot. Good number of such type of the pottery has also been found from the Senuwar, an excavated pre-historic site. The cord impressions are sometimes deep or very shallow and not very clear.

It was used for the decoration or for making rough surface. The rough surface of pot absorbs more heat energy. This physical property was used for the fuel management in the kitchen for the cooking pursuse. The rough rustications applied on the outer lower surface on the cooking wares was for heat gaining. The corded ware has a long antiquity in Asian context.

## **Antiquities**

A large number of antiquities made in different mediums have been discovered on which include beads, weights, pendants, animals, bird and other figurines, toys, hopscotch, balls, arrow heads, spear heads, hoes, household objects, seals, sealing, points, skin rubbers, corn rubbers, nails, hooks, pounders, pestles, microlithic tools etc.

## **Beads**

A variety of beads made of bone, antler, terracotta, semi -precious stones, like-agate, carnelian, chert, crystal, chalcedony, jasper, faience, steatite etc. and shell have been found in fairly good number. Beads were recovered from the Neolithic strata to the Gupta strata. Funnel shaped, vertical neck vase shaped, collared mouth vase shaped, areca nut shaped, barrel, cylindrical, oval and round shaped terracotta beads have been recovered from the Neolithic,

Chalcolithic, NBPW, Sunga-Kushan and Gupta phases. Spherical, disc, long and short tubular, bicone, truncated, barrel, leaf, and globular are important shapes of the semi precious stone beads.

### **Arrow heads**

A variety of arrow heads made of bone, ivory, antler and iron have recovered from the different periods. Tanged, socketed and barbed arrow heads were made in different shape, size and texture.

### **Pendants**

A variety of pendants made of terracotta, bone and semi precious stone have been recovered from the strata.

### **Microlithic tools**

Blades, points, lunettes, scrapers, borer are important microlithic tools, made of chert, chalcedony, agate, crystal, carnelian, quartz and sand stone, have been recovered in fairly good number. The raw and waste variety of the hand made tools, core and flake remains have been also recovered in fairly good number. These materials suggest that it was a factory site. Different types of hard stones were imported from the south of the Ganga and other places.

### **Celt**

Neolithic ground stone celt of bluish colour has been recovered from the excavation. It measures 9.05cm in length and 4.05cm in breadth at the working edge.

### **Seals and sealings**

Terracotta, bone and antler seals and sealings of the different phases were recovered from the excavations and surface collection. Some collections are kept in the Chechar museum.

### **Metal objects**

A good number of iron and copper objects have been recovered, which include ornaments, like bangles, antimony rods, rings etc; surgical tools, and knife, punch mark coins of copper and nail, knife, spear head, arrow heads, lance, chisels etc of iron. Points, bodkins, awls and other identified/unidentified objects were also found during the excavation and surface collection.

### **Flora and Fauna**

Botanical remains were collected by the floatation methods from the excavated earth. The analytical study of the botanical remains will give ample information about the then flora. It can be helpful for the study of the ecological system of the relevant time. The sample of charcoal and other organic materials collected from the lower strata would be helpful for the C<sup>14</sup> dating.

A good number of big and small pieces of limbs, vertebral bone, and jaw with teeth, ribs,

joints, antlers, fang and shells have been collected which belong to the fish, birds, reptiles and animals.

### OBSERVATIONS

Chechar-Qutubpur is strategically located at the northern bank of the Gandak River. The river island Raghopur is situated between the Gandak and the Ganga rivers. The low land area locally called *chaur*, is situated about 3km. north to the settlement area. A palaeochannel named Ghaghra flows west to east and meet with the Gandak near the west of Mahnar. The river provides communication, protection, fertility of the earth and easy accessibility to raw materials and minerals in the vicinity that further influences the settlement patterns. The people of Chechar produced variety of objects for internal use and for export, such as varying types of beads and tools of semiprecious stones. The objects are found in different manufacturing stages. This throws ample light on the factory site.



Image 1: Position of Chechar -Qutubpur on the topsheet, G72/6

Image 2: Satellite image of Chechar-Qutubpur



Figure 1: Red ware bowl with lid, Period-IV

Figure 2: Burnished Grey ware, Period -II



Figure 3: Red ware bowl, Period IV



Figure 4: Oven, Period -I



Figure 5: Stone beads



Figure 6: Decorated potsherds

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## DEVELOPMENT AND VALIDATION OF BIO –ANALYTICAL METHOD FOR THE ESTIMATION OF SOME DRUGS IN HUMAN PLASMA BY USING LC-MS/MS.

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*Saikishore Vankayalapati\*\**

### ABSTRACT

*A sensitive and selective method based on liquid chromatography – tandem mass spectrometry (LC-MS/MS) has been developed for the quantitative determination of Loperamide in human plasma. Automated Solid Phase Extraction (SPE) on Disposable Extraction Cartridge (DEC) is used to isolate the compounds from the biological matrix and to prepare a clear sample before injection and analysis in the Lc-Ms/Ms system. After conditioning, the plasma sample is loaded on the DEC filled with end capped ethyl silica and washed twice with water. The analytes are therefore eluted with by dispensing with methanol. The elute is then collected and with 60% Acetonitril in water solution in order to inject an aliquot of this final extract in the LC-MS/MS System. Online Lc-Ms/Ms system using Atmospheric Pressure Chemical Ionization (APCI) has been developed for the determination of Loperamide. The separation is obtained on an octadecylsilica based stationary phase using a mobile phase consisting in a mixture of Methanol and 0.1% Formic acid in 10mM Ammonium acetate: Acetonitrile (30:70 v/v) Loperamide  $d_6$  is used as internal standard (ISTD). The Ms/Ms ion transitions monitored are  $m/z$  513.50 and 519.54 Loperamide and Loperamide  $d_6$ , respectively. Calibration curves, which were linear over the range 20.000 to 3003.000 pg/mL (Loperamide), were run contemporaneously with each batch of samples, along with lower limit of quantification (20.000pg/mL), medium (1206.000pg/mL), and high (2412.000pg/mL) quality control samples, the lower limit of quantification (LLOQ) of Loperamide and Loperamide  $d_6$  was about 0.25pg/ml in plasma. The extraction efficiency of Loperamide and Loperamide  $d_6$  from human plasma was  $72.06 \pm 1.50$  (range 70.7- 73.7%) and  $67.97 \pm 12.8\%$  (64.9- 88.8%), respectively. The intra- and inter-assay variability of Loperamide and Loperamide  $d_6$  ranged from 2.1 to 14.5% for the low, medium, and high quality control samples. The method has been validated successfully with respect to ICH guidelines on Q2B parameters.*

**KEYWORDS:** Calibration Curve, Loperamide , Loperamide  $d_6$  (ISTD).

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## INTRODUCTION

Loperamide<sup>[1 to 4]</sup> is one of the long-acting synthetic antidiarrheals. It is not significantly absorbed from the gut and has no effect on the adrenergic system or central nervous system, but may antagonize histamine and interfere with acetylcholine release locally. In *vitro* and animal studies show that Loperamide acts by slowing intestinal motility and by affecting water and electrolyte movement through the bowel. Loperamide inhibits peristaltic activity by a direct effect on the circular and longitudinal muscles of the intestinal wall. It is a non-selective calcium channel blocker and binds to opioid mu-receptors. Evidence also suggests that at higher concentrations it binds to Calmodulin<sup>[5 to 6]</sup>.

The literature reports, many methods for estimation of Loperamide in bulk, tablet dosage form, capsule dosage form and human plasma. These methods include estimation of Loperamide in human plasma by using LC-MS/MS<sup>[7&8]</sup>.

The aim of the present investigation is to develop and validate a sensitive, precise and accurate LC-MS/MS method for the Estimation of Loperamide in human plasma. The proposed method is validated as per ICH guidelines.[9 to 13]

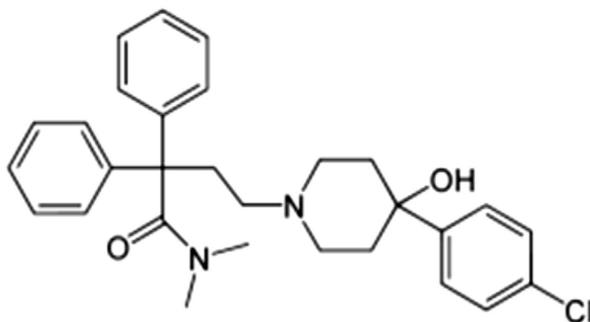


Figure 1: Chemical structure of Loperamide

## MATERIALS AND METHOD:

### 1. Preparation of Working Standard Solutions

#### 1.1.1 Preparation of Loperamide Standard Stock Solution:

Weighed and transferred 5.402 mg of Loperamide HCl working standard into a 5.000mL volumetric flask for preparing calibration curve standard and 5.402mg of Loperamide HCl into a 5.000ml volumetric flask for preparing Quality Control Samples and dissolved in Methanol. Made upto the volume with the same. Calculated the concentration of the resulting solution by considering the purity of Loperamide, labeled and stored the solutions at 2-8°C (Cold Store ID: CS211513).

Weighed and transferred 2.157mg of Loperamide HCl working Standard into a 2.000mL volumetric flask for preparing Fresh Calibration Curve standards and Fresh Run Acceptance Quality Control samples for stabilities and dissolved in Methanol. Made up the volume with the same. Calculated the concentration of resulting solutions by considering the purity of Loperamide and labeled.

Date	Amount weighed	Dilution solvent	Final volume (mL)	Storage condition	Purpose
2016/05/25	5.418	Methanol	5.000	2-8°C	Pre-validation SSS&LTSSS
2016/05/26	5.423	Methanol	5.000	2-8°C	SSS (fresh)& Qc spiking
2016/05/26	5.402	Methanol	5.000	2-8°C	CC spiking

### 1.1.1 Preparation of Internal Standard (Loperamide-d<sub>6</sub>) Stock Solution:

Weighed and transferred 5.392 mg of Loperamide-d<sub>6</sub>HCl working standard into a 5.000 mL volumetric flask and dissolved in Methanol. Made up the volume with the same. Calculated the concentration of resulting solution by considering the purity of Loperamide-d<sub>6</sub>. Labeled and stored the solution by considering the purity of Loperamide-d<sub>6</sub>. Labeled and stored the solution at 2-8°C (Cold store ID: CS211513). Diluted the stock solution with 60% acetonitrile in water solution to get a concentration of 5.000 µg/mL.

Date	Amount weighed	Dilution solvent	Final volume (mL)	Storage condition	Purpose
2016/05/25	5.392	Methanol	5.000	2-8°C	Pre-validation SSS&LTSSS
2016/05/26	5.403	Methanol	5.000	2-8°C	SSS
2016/05/31	2.150	Methanol	2.000	2-8°C	LTSSS

### 1.1.2 Concomitant Drug Stock Solution:

The stock solutions of Concomitant drugs {Nicotine Bitartrate Dihydrate, Aspirin (Acetylsalicylic acid), Caffeine, Theophylline, Ibuprofen and Acetaminophen} were prepared on 2016/04/11 and stored between 2-80° C (VLL-BA/CSR/02, S. No. 20070116). Refer stock weighing and solution preparation forms:-23/22- SWF- 10573, 10577,10575,10578,10574 and 10576 respectively (available in master file). The stock solutions were used for preparation of QC samples in presence of Concomitant drugs for Loperamide.

### 1.1.3 Preparation of Calibration Curve (CC) standards

#### (i) Preparation of stock solution dilutions of Loperamide Solution:

Prepared the following stock serial dilutions of Loperamide ranging from 0.010 $\mu$ g/mL to 100.098  $\mu$ g/mL with 60% Acetonitrile in water solution using main stock solution prepared for Calibration Curve Standards.

Stock conc. ( $\mu$ g/mL)	Volume of stock (mL)	Volume of Diluent (mL)	Final Volume (mL)	Final conc. ( $\mu$ g/mL)
1000.978	0.200	1.800	2.000	100.098
100.98	0.200	1.800	2.000	10.010
10.010	0.200	1.800	2.000	1.001
1.001	0.200	1.800	2.000	0.100
0.100	0.200	1.800	2.000	0.010

#### (ii) Preparation of Stock Dilution of Standard Loperamide Solution:

Prepared the following stock dilutions of Loperamide ranging from 0.400  $\mu$ g/mL to 60.060  $\mu$ g/mL with 60% Acetonitrile in water solution using serial dilutions from the above table [1.5.4(i)]. Then filled the table of preparation of stock dilutions for calibration curve standards in preparation of Calibration Curve (CC) Standards form.

Stock conc. ( $\mu$ g/mL)	Volume of stock (mL)	Volume of Diluent (mL)	Final Volume (mL)	Final conc. ( $\mu$ g/mL)
1.001	0.060	0.940	1.000	60.060
1.001	0.040	0.960	1.000	40.040
1.001	0.020	0.980	1.000	20.020
0.100	0.100	0.900	1.000	10.000
0.100	0.050	0.950	1.000	5.000
0.100	0.020	0.980	1.000	2.000
0.010	0.080	0.920	1.000	0.800
0.010	0.040	0.960	1.000	0.400

#### (iii) Preparation of Calibration Curve Standards:

Prepared the following concentration of Loperamide ranging from 20.000pg/mL to 3003.000pg/mL with screened K<sub>2</sub>EDTA human plasma using final dilutions from the table 1.5.4 (ii) and labeled them as CC1 to CC8. Then filled the table of preparation of calibration curve standards using matrix in preparation of Calibration Curve (CC) standards form.

Stock conc. (ng/mL)	Volume of stock (mL)	Volume of Diluent (mL)	Final Volume (mL)	Final conc. (pg/mL)	Label
60.060	0.250	4.750	5.000	3003.000	CC8
40.040	0.250	4.750	5.000	2002.000	CC7
20.020	0.250	4.750	5.000	1001.000	CC6
10.000	0.250	4.750	5.000	500.000	CC5
5.000	0.250	4.750	5.000	250.000	CC4
2.000	0.250	4.750	5.000	100.000	CC3
0.800	0.250	4.750	5.000	40.000	CC2
0.400	0.250	4.750	5.000	20.000	CC1

### 1.1.4 Preparation of Quality Control (QC) Samples

#### (i) Preparation of Stock Serial Dilutions of Loperamide Solution:

Prepared the following stock serial dilutions of Loperamide ranging from 0.010 µg/mL to 100.487 µg/mL with 60 % acetonitrile in water solution using main stock solution prepared for Quality Control Samples. Then filled the 'Stock Dilution Form'.

Stock conc. (µg/mL)	Volume of stock (mL)	Volume of Diluent (mL)	Final Volume (mL)	Final conc. (µg/mL)
1004.870	0.200	1.800	2.000	100.487
100.487	0.200	1.800	2.000	10.049
10.049	0.200	1.800	2.000	1.005
1.005	0.200	1.800	2.000	0.101
0.101	0.200	1.800	2.000	0.010

#### (ii) Preparation of Stock Dilutions of standard Loperamide Solution:

Prepared the following stock dilutions of Loperamide ranging from 0.400 ng/mL to 180.900 ng/mL with 60 % acetonitrile in water solution using serial dilutions from the above table [1.1.4 (i)]. Then filled the table of preparation of stock dilutions for Quality Control Samples in 'Prepared of Quality Control (QC) Samples' form.

Stock conc. (µg/mL)	Volume of stock (mL)	Volume of diluent (mL)	Final Volume (mL)	Final conc. (ng/mL)
1.005	0.180	0.820	1.000	180.900
1.005	0.240	4.760	5.000	48.240
1.005	0.120	4.880	5.000	24.120
0.101	0.270	4.730	5.000	5.454
0.010	0.599	4.401	5.000	1.198
0.010	0.080	1.920	2.000	0.400

#### (iii) Preparation of Quality Control Samples:

Prepared the following concentrations of Loperamide ranging from 20.000 pg/mL to 9045.000 pg/mL with screened K<sub>2</sub>EDTA human plasma using final dilutions from the table [1.1.4 (ii)] and labeled them as lower limit of quantitation (LLOQ), low concentration (LQC), geometric mean concentration (GMQC), medium concentration (MQC), high concentration (HQC) and dilution integrity Quality Control (DIQC) samples, respectively. Then filled the table of preparation of Quality Control Samples using matrix in 'Preparation of Quality Control (QC) samples' form..

Stock conc. (ng/mL)	Volume of Stock (mL)	Volume of Plasma (mL)	Final Volume (mL)	Final conc. (pg/mL)	Label
180.900	0.250	4.750	5.000	9045.000	DIQC
48.240	2.500	47.500	50.000	2412.000	HQC
24.120	1.250	23.750	25.000	1206.000	MQC
5.454	1.250	23.750	25.000	272.700	GMQC
1.198	2.500	47.500	50.000	59.900	LQC
0.400	0.500	9.500	10.000	20.000	LLOQ

**Note:** Additionally 2.000 mL of LLOQ, 25.000 mL of LQC, 10.000 mL of MQC and 25.000 mL of LQC were prepared.

### 1.1.5 Preparation of Quality Control (QC) samples of Loperamide in presence of Concomitant Drugs

#### (i) Preparation of Stock Serial Dilution of Nicotine Solution:

Prepared the stock serial dilution of 101.340 µg/mL concentration of Nicotine with 60% acetonitrile in water solution using main stock solution

Stock conc. (µg/mL)	Volume of stock (mL)	Volume of diluents (mL)	Final Volume (mL)	Final conc. (µg/mL)
1013.398	0.100	0.900	1.000	101.340

#### (ii) Preparation of stock Dilution of Standard Loperamide Solution:

Prepared the stock dilution of Loperamide of 2.390 ng/mL and 96.480 ng/mL with 60% Acetonitrile in water solution using dilutions from the above table 1.5.5.

Stock conc. (µg/mL)	Volume of stock (mL)	Volume of diluents (mL)	Final Volume (mL)	Final conc. (ng/mL)
1.005	0.096	0.904	1.000	96.480
0.010	0.239	0.761	1.000	2.390

#### (iii) Preparation of Stock Dilution for mixture of concomitant Drugs:

Prepared the stock dilutions for mixture of concomitant drugs having 2.027 µg/mL concentration of Nicotine, 400.956 µg/mL concentration of Acetylsalicylic acid, 80.248 µg/mL concentration of Caffeine, 400.280 µg/mL concentration of Theophylline and 400.242 µg/mL concentration of Ibuprofen with 60% Acetonitrile in water solution using main stock solution and serial dilution and labeled the mixture of concomitant drugs as 'X'. Then filled the 'Stock Dilution Form'.

Concomitant drugs	Stock conc. (µg/mL)	Volume of stock (mL)	Volume of diluent (mL)	Final Volume (mL)	Final conc. (µg/mL)	Label
Nicotine	101.340	0.040	0.2000	0.2000	2.027	X
Acetaminophen	2004.781	0.400			400.956	
Acetylsalicylic acid	2005.179	0.400			401.036	
Caffeine	1003.095	0.160			80.248	
Theophylline	2001.400	0.400			400.280	
Ibuprofen	2001.208	0.400			400.242	

#### (i) Preparation of Quality Control samples of Loperamide in presence of mixture of concomitant Drugs:

Prepared the concentrations of Loperamide of 59.750 pg/mL and 2412.000 pg/mL in presence

of mixture of concomitant drugs (Y) having 50.675 ng/mL concentration of Nicotine, 10.024 µg/mL concentration of Acetaminophen, 10.026 µg/mL concentration of Acetylsalicylic acid, 2.006 µg/mL concentration of Caffeine, 10.007 µg/mL concentration of Theophylline and 10.006 µg/mL concentration of Ibuprofen with screened K<sub>2</sub>EDTA human plasma using final dilutions from the above tables and labeled them as Con. LQC and Con. HQC Quality Control Samples respectively. Then filled the 'Stock Dilution Form'.

Stock conc.		Volume of stock (mL)		Volume of Plasma (mL)	Final Volume (mL)	Final conc. (pg/mL)		Label
Mixture of concomitant drugs (µg/mL)	Loperamide (ng/mL)	Mixture of concomitant drugs (mL)	Loperamide (mL)			Loperamide (pg/mL)	Mixture of concomitant drugs	
X	96.480	0.125	0.125	4.750	5.000	2412.000	Y	Con. HQC
	2.390	0.125	0.125	4.750	5.000	59.750		Con. LQC

Con. = Concomitant

The above Calibration Curve Standards and Quality Control Samples were prepared on 2016/05/26 and distributed 0.250 mL of each of the above Quality Control Samples, Calibration Curve Standard sets in separate prelabeled vials. Then filled the table for the distribution of CC's and QC's in the form 'Distribution of CC standards and QC samples for Validation'. Then stored samples in -70°C ± 10°C deep freezer [Deep freeze VLS-FA/DF/03 (SI No: 1005-3039-05-06)] until completion of Method Validation.

## 1.0 PARAMETERS

To prepare the Tables and calculations of mean, SD, CV%, accuracy and stability (%), the data was transferred into Microsoft Excel spreadsheet software. The interim stages of the calculations were performed on original values without applying rounding off rules. The final results were rounded to desired precision. The report was prepared using Microsoft word software. All the entries were verified against the raw data.

Precision and Accuracy Batches II, III, V and VI were performed on 2016/05/26 to 2016/05/28.

### 1.1 System Suitability (Tables: 1.0 & 2.0)

Prepared approximately 1.004 ng/ mL concentration of Loperamide –d<sub>6</sub> in mobile phase and injected six replicates in mobile phase. The results of system suitability were performed using two different columns (same make) and have been tabulated in Tables 1.0 and 2.0. The results were within the acceptance criteria.

## 1.2 Selectivity (Table : 3.0)

The selectivity was established by checking the seven blank K<sub>2</sub>EDTA human plasmas, one K<sub>2</sub>EDTA Lipemic and one K<sub>2</sub>EDTA Haemolytic plasma obtained from 9 different blood donors. As these blood samples were collected from 9 different people, all possible K<sub>2</sub>EDTA human plasma profiles included might contain any interfering compounds that elute along with Loperamide and ISTD (Loperamide-d<sub>6</sub>). Also spiked LLOQ concentration of Loperamide in plasma of one donor (Plasma ID: VLS-BA/Plasma/791) from above plasmas except Haemolytic and Lipemic plasma. Processed six samples of LLOQ with ISTD (Loperamide-d<sub>6</sub>) and analyzed. Compared the response of analyte and ISTD in blank plasma, if any, with the mean response of LLOQ concentration injected.

There were no interfering peaks found at Loperamide retention time and ISTD (Loperamide-d<sub>6</sub>) retention time in the plasma blanks. Figure 1 show representative chromatograms of blank K<sub>2</sub>EDTA human plasma sample from selectivity and P& A batch.

## 1.3 Specificity (Table: 4.0)

The specificity was established by checking the interference at Loperamide retention time caused due to ISTD, by injecting six replicates of matrix blank (plasma ID: VLS-BA/Plasma/791) with ISTD and interference at ISTD retention time caused due to Loperamide by injecting 6 replicates of MQC (1204.800 pg/mL) (Spiked with plasma ID: VLS-BA/Plasma/791) concentration of Loperamide. Compared the response of analyte and ISTD, if any with the mean response of analyte and ISTD, respectively obtained with LLOQ injected. There were no interfering peaks obtained at Loperamide retention time due to ISTD and also at internal standard retention time due to Loperamide. Figure 3 show representative chromatogram of plasma blank with internal standard from P and A batch.

## 1.4 Carryover Effect (Table 5.0)

The carryover effect of the present method was established by processing one blank sample from biological matrix (plasma ID: VLS-BA/plasma/791) for seven injections and one sample at ULOQ concentration 3012.000 pg/mL (spiked with plasma ID: VLS-BA/plasma/791) for six injections. These samples were analyzed alternatively to check if there is any carryover in the blank sample. Compared the response of analyte and ISTD, if any, with the mean response of injected LLOQ. There was no Carryover observed.

## 1.5 Sensitivity (Table: 13.0)

The lower limit of quantification (LLOQ) was found to be 20.000 pg/mL for Loperamide. The % Accuracy was 99.93% and CV% was 3.06%.

## 1.6 Ruggedness

The effect of column variation and analyst change has been studied during method validation.

The column variation was showed for P and A Batch I & II and the analyst variation in P & A Batch I & II. Results were found to be within the acceptance criteria for column variation and analyst variation.

### **1.7 Recovery (RC)(Tables: 6.0 and 7.0)**

The average percentage recovery of the Loperamide was 69.99% and that of the ISTD (Loperamide-d<sub>6</sub>) was found to be 67.97%.

### **1.8 Linearity (Table: 8.0)**

The method was found to be linear between the ranges of 20.000 pg/mL to 3003.000 pg/mL for Loperamide. A straight line fit was made through the data points by 1/c<sup>2</sup> weighing method. The observed correlation coefficient (r) was greater than 0.99 in all the cases. Hence the method is linear in the stated range.

### **1.9 Accuracy (Tables: 9.0, 10.0, 11.0, 12.0 and 13.0)**

The accuracy observed for Inter-batch QC samples was 99.93%, 99.23%, 95.78% and 97.74% for LLOQ, LQC, MQC and HQC respectively (Table: 13.0). The % accuracy for intra-batch QC samples ranged from 97.45% to 102.54%, 93.06% to 102.08%, 93.65% to 96.57% and 95.01% to 99.33% for LLOQ, LQC, MQC and HQC respectively (Tables: 9.0, 10.0, 11.0, & 12.0).

### **1.10 Precision(Tables: 9.0, 10.0, 11.0,12.0 ,& 13.0)**

The CV% observed for the inter-batch QC samples was 3.06%, 5.39%, 1.38% and 1.81% for LLOQ, LQC, MQC, HQC respectively (Table: 13.0). The CV% for the intra-batch QC samples ranged from 1.48% to 3.28%, 0.91% to 8.60%, 0.12%to 0.568% and 0.49% to 0.75% for LLOQ, LQC, MQC, and HQC respectively (Tables: 9.0, 10.0, 11.0 & 12.0).

### **1.11 Accuracy in presence of Concomitant Drugs (Table 14.0)**

Concomitant drugs effect was done in presence of nicotine, acetaminophen, acetylsalicylic acid, caffeine, Theophylline and Ibuprofen. The accuracy (%) observed was 99.78% and 94.75% for Concomitant LQC and Concomitant HQC respectively.

### **1.12 Precision in Presence of Concomitant Drugs (Table: 14.0)**

Concomitant drugs effect was done in presence of nicotine, Acetaminophen, acetylsalicylic acid, caffeine, Theophylline and Ibuprofen. The % Accuracy observed was 1.10% and 0.67% for Concomitant LQC and Concomitant HQC respectively.

**Table 1.0: System Suitability –I**

S.No	RT (in minutes)		Peak response (area)		
	Analyte	Internal Standard	Analyte	Internal standard	Analyte area / ISTD area
1	1.62	1.62	3422394	2805614	1.22
2	1.62	1.62	3437143	2833976	1.21
3	1.62	1.62	3392603	2803327	1.21
4	1.62	1.62	3384765	2807687	1.21
5	1.62	1.62	3356794	2797537	1.20
6	1.62	1.62	3355246	2777009	1.21
Mean	1.62	1.62			1.21
SD ( $\pm$ )	0.0000	0.0000			0.0067
CV%	0.00	0.00			0.56

(Column Details: Agilent zorbax, XDB, C18, 4.6 x 100mm, 3.5  $\mu$ m, ID: VLS-BA/CL/081)

**Table 2: System Suitability –II**

S.No	RT (in minutes)		Peak response (area)		
	Analyte	Internal Standard	Analyte	Internal standard	Analyte area / ISTD area
1	1.62	1.61	3414897	3059651	1.12
2	1.62	1.61	3357376	3036722	1.11
3	1.62	1.62	3353512	3040896	1.10
4	1.62	1.61	3334128	3016129	1.11
5	1.62	1.61	3348249	2993219	1.12
6	1.62	1.61	3319053	2976891	1.11
Mean	1.62	1.61			1.11
SD ( $\pm$ )	0.0000	0.0041			0.0067
CV%	0.00	0.25			0.61

(Column Details: Agilent Zorbax, XDB, C18, 4.6 x 100mm, 3.5  $\mu$ m, ID: VLS-BA/CL/057)

**Table 3.0: Selectivity**

a. Selectivity (LLOQ)

ID	Loperamide Peak area	ISTD Peak area	Analyte area / ISTD area
SP.LLOQ – 01	21148	970843	0.0218
SP.LLOQ - 02	21952	967625	0.0227
SP.LLOQ - 03	22452	964568	0.0233
SP.LLOQ - 04	21998	968833	0.0227
SP.LLOQ - 05	21917	975924	0.0225
SP.LLOQ - 06	21493	957727	0.0224
Mean	21827	0.0226	0.0226
SD ( $\pm$ )			0.0005
CV%			2.15

(Note: Above LLOQ was spiked using Plasma ID: VLS-BA/Plasma/791)

## b) Selectivity (Plasma Blank)

ID	Loperamide Peak area	ISTD peak area	% interference at RT of Loperamide	% interference at RT of ISTD
PL.Blank ID VLS-BA/Plasma/791	0	0	0.00	0.00
PL.Blank ID VLS-BA/Plasma/792	0	0	0.00	0.00
PL.Blank ID VLS-BA/Plasma/793	0	0	0.00	0.00
PL.Blank ID VLS-BA/Plasma/794	0	0	0.00	0.00
PL.Blank ID VLS-BA/Plasma/795	0	0	0.00	0.00
PL.Blank ID VLS-BA/Plasma/796	0	0	0.00	0.00
PL.Blank ID VLS-BA/Low Hae.Plasma/797	0	0	0.00	0.00
PL.Blank ID VLS-BA/ high Hae.Plasma/798	0	0	0.00	0.00
PL.Blank ID VLS-BA/Lipemic Plasma/799	0	0	0.00	0.00

Sp = Spiked

RT = Retention time

Hae = Haemolytic

PL = Plasma

**Table 4.0: Specificity**

## a) Selectivity

ID	Loperamide peak area	ISTD peak area	Analyte area/ ISTD area
Sp.LLOQ-1	24706	1160652	0.0213
Sp.LLOQ-2	24073	1144413	0.210
Sp.LLOQ-3	25302	1172455	0.0216
Sp.LLOQ-4	25175	1165118	0.0216
Sp.LLOQ-5	23807	1137810	0.0209
Sp.LLOQ-6	23661	1114380	0.0212
Mean	<b>24454</b>	<b>1149138</b>	0.0213
SD ( $\pm$ )			0.0003
CV %			<b>1.31</b>

**Note:** Above LLOQ was spiked using plasma ID: VLS-BA/Plasma/791.

## b) Specificity (MQC)

ID	Loperamide Peak Area	ISTD Peak area	% Interference at RT of ISTD in Presence of Loperamide
Spe.MQC -1	895702	0	0.00
Spe.MQC -2	660602	0	0.00
Spe.MQC -3	896050	0	0.00
Spe.MQC -4	904316	0	0.00
Spe.MQC -5	902984	0	0.00
Spe.MQC -6	904415	0	0.00

**i) Specificity (ISTD)**

ID	Loperamide Peak Area	ISTD Peak area	% Interference at RT of ISTD in Presence of Loperamide
PL.Blank + ISTD - 01	0	1162699	0.00
PL.Blank + ISTD - 02	0	1181010	0.00
PL.Blank + ISTD - 03	0	1039281	0.00
PL.Blank + ISTD - 04	0	1038162	0.00
PL.Blank + ISTD - 05	0	1144968	0.00
PL.Blank + ISTD - 06	0	1019214	0.00

PL = Plasma

SP = Spiked

Spe. = Specificity

**Note:** 1) above MQC was spiked using plasma ID: VLS-BA/Plasma/791.

2) VLS-BA/Plasma/791 was used for processing of Pl.blank +ISTD for specificity.

**Table 5.0: Carryover Effect**

**a) Carryover Effect (ULOQ)**

ID	Loperamide Peak area	ISTD Peak Area
ULOQ - 01	3347139	952687
ULOQ - 02	3314119	939919
ULOQ - 03	3306640	953074
ULOQ - 04	3311165	947848
ULOQ - 05	3306036	940019
ULOQ - 06	3296112	940482

**(Note:** Above ULOQ was spiked using plasma ID: VLS-BA/Plasma/791)

**b) Carryover Effect (Plasma Blank)**

ID	Loperamide peak area	ISTD Peak area	% Interference at Rt of Loperamide	% Interference of Rt of ISTD
PL.Blank - 01	0	0	0.00	0.00
PL.Blank - 02	0	0	0.00	0.00
PL.Blank - 03	0	0	0.00	0.00
PL.Blank - 04	0	0	0.00	0.00
PL.Blank - 05	0	0	0.00	0.00
PL.Blank - 06	0	0	0.00	0.00
PL.Blank - 07	0	0	0.00	0.00

PL = Plasma

**(Note:** Plasma ID: VLS-BA/Plasma/791 was used for processing of Carryover Effect blank)

**Table 6.0: Recovery (RC) of Loperamide from Plasma samples**

	ID	Unextracted standard peak area	ID	Extracted matrix standard peak area	% Recovery
LQC	Aqs.RC.LQC -01	82759	Aqs.RC.LQC -01	56464	
	Aqs.RC.LQC -02	82845	Aqs.RC.LQC -01	54806	
	Aqs.RC.LQC -03	82366	Aqs.RC.LQC -01	52545	
	Aqs.RC.LQC -04	81146	Aqs.RC.LQC -01	54483	
	Aqs.RC.LQC -05	80931	Aqs.RC.LQC -01	52000	
	Aqs.RC.LQC -06	79661	Aqs.RC.LQC -01	51691	
	Mean	81618		53665	65.75
	SD ( $\pm$ )	1256.3054		1883.0139	
	CV%	1.54		3.51	
MQC	Aqs.RC.MQC - 01	1407995	Aqs.RC.MQC - 01	1019303	
	Aqs.RC.MQC -02	1415064	Aqs.RC.MQC -02	997610	
	Aqs.RC.MQC -03	1395545	Aqs.RC.MQC -03	1003375	
	Aqs.RC.MQC -04	1395476	Aqs.RC.MQC -04	995692	
	Aqs.RC.MQC -05	1361250	Aqs.RC.MQC -05	992994	
	Aqs.RC.MQC - 06	1350481	Aqs.RC.MQC - 06	1000235	
	Mean	1387635		1001535	72.18
	SD ( $\pm$ )	25951.9439		9415.6506	
	CV%	1.87		0.94	
HQC	Aqs.RC.HQC - 01	2789546	Aqs.RC.HQC - 01	2001528	
	Aqs.RC.HQC -02	2753823	Aqs.RC.HQC - 02	2001614	
	Aqs.RC.HQC -03	2840446	Aqs.RC.HQC - 03	2022979	
	Aqs.RC.HQC -04	2822868	Aqs.RC.HQC - 04	2016991	
	Aqs.RC.HQC -05	2820563	Aqs.RC.HQC - 05	2043319	
	Aqs.RC.HQC - 06	2790906	Aqs.RC.HQC - 06	2032116	
	Mean	2803025		2019758	72.06
	SD ( $\pm$ )	31148.1869		16657.7889	
	CV%	1.11		0.82	
<b>Mean (Avg. of 3% recovery)</b>					<b>69.99</b>
<b>SD (<math>\pm</math>)</b>					<b>3.6752</b>
<b>Global CV%</b>					<b>5.25</b>

(Note: Extracted recovery samples were spiked using plasma)

**Table 7.0: Recovery (RC) of ISTD (Loperamide- d6) from Plasma**

	ID	Unextracted standard peak area	ID	Extracted matrix standard peak area	% Recovery
	Aqs.RC.LQC -01	1307590	Aqs.RC.LQC -01	913619	
	Aqs.RC.LQC -02	1305974	Aqs.RC.LQC -02	894173	
	Aqs.RC.LQC -03	1308497	Aqs.RC.LQC -03	845680	
	Aqs.RC.LQC -04	1301302	Aqs.RC.LQC -04	873265	
	Aqs.RC.LQC -05	1301648	Aqs.RC.LQC -05	844378	
	Aqs.RC.LQC -06	1314798	Aqs.RC.LQC -06	831094	
	Aqs.RC.MQC- 01	996984	Aqs.RC.MQC- 01	719276	
	Aqs.RC.MQC-02	990594	Aqs.RC.MQC-02	705370	

STD	Aqs.RC.MQC-03	998259	Aqs.RC.MQC-03	704480	
	Aqs.RC.MQC-04	986533	Aqs.RC.MQC-04	706079	
	Aqs.RC.MQC-05	1029749	Aqs.RC.MQC-05	703208	
	Aqs.RC.MQC-06	1019855	Aqs.RC.MQC-06	705359	
	Aqs.RC.HQC - 01	1050440	Aqs.RC.HQC - 01	705833	
	Aqs.RC.HQC -02	1031872	Aqs.RC.HQC -02	700577	
	Aqs.RC.HQC -03	1059012	Aqs.RC.HQC -03	710090	
	Aqs.RC.HQC -04	1054093	Aqs.RC.HQC -04	711501	
	Aqs.RC.HQC -05	1052586	Aqs.RC.HQC -05	714729	
	Aqs.RC.HQC - 06	1049347	Aqs.RC.HQC - 06	713441	
Mean		1119952			761231
SD ( $\pm$ )		137629.5990			79070.8072
CV%		12.29			10.39
					<b>67.97</b>

Table 8.0 Back Calculated Calibration Curve Concentrations

Barch ID		P&A-I		P&A-II		P&A-III	
Level	Sp.Conc (pg/mL)	CC (Set 01)	% Acc	CC (Set 02)	% Acc	CC (Set 03)	% Acc
CC1	20.000	19.603	98.01	19.713	98.56	19.771	98.86
CC2	40.000	41.754	104.39	40718	101.79	40.691	101.73
CC3	100.000	98.209	98.21	102.498	102.50	101.242	101.24
CC4	250.000	242.559	97.02	246.099	98.44	245.554	98.22
CC5	500.000	571.650	114.33	539.474	107.89	537.821	107.56
CC6	1001.000	929.404	92.85	939.515	93086	947.063	94.61
CC7	2002.000	1949.235	97.36	1950.393	97.42	1969.053	98.35
CC8	3003.000	2937.713	97.83	2988.864	99.53	2985.698	99.42

Batch ID		P&A-I		P&A-II		P&A-III	
Level	Sp.Conc (pg/mL)	CC (Set 04)	% Acc	CC (Set 05)	% Acc	CC (Set 06)	% Acc
CC1	20.000	19.814	99.07	19.707	98.53	20.002	100.01
CC2	40.000	40.312	100.78	41.058	102.65	49.200*	123.00
CC3	100.000	102.545	102.55	99.855	99.86	100.144	100.14
CC4	250.000	245.369	98.15	242.729	97.09	245.056	98.02
CC5	500.000	540.829	108.17	573.988	114.80	527.596	105.52
CC6	1001.000	937.071	93.61	934.275	93.33	949.146	94.82
CC7	2002.000	1977.017	98.75	1930.356	96.42	1967.169	98.26
CC8	3003.000	2970.759	98.93	2922.544	97.32	3099.903	103.23

CC6	1001.000	937.071	93.61	934.275	93.33	949.146	94.82
CC7	2002.000	1977.017	98.75	1930.356	96.42	1967.169	98.26
CC8	3003.000	2970.759	98.93	2922.544	97.32	3099.903	103.23

- = % Accuracy was not within the acceptance criteria of 85% - 115%, hence not considered for linearity and further calculations.

CC Level	Sp.Conc (pg/mL)	Mean	SD (±)	CV%	%Acc
CC1	20.000	19.768	0.1348	0.68	98.84
CC2	40.000	40.907	0.5424	1.33	102.27
CC3	100.000	100.749	1.6819	1.67	100.75
CC4	250.000	244.561	1.5240	0.62	97.82
CC5	500.000	548.560	19.3746	3.53	109.71
CC6	1001.000	939.412	7.5542	0.80	93.85
CC7	2002.000	1957.204	17.1053	0.87	97.76
CC8	3003.000	2984.247	62.5369	2.10	99.38

	CC (Set - 01)	CC (Set - 02)	CC (Set - 03)	CC (Set - 04)	CC (Set - 05)	CC (Set - 06)
Intercept	0.00247084	0.00229452	0.00238834	0.00252568	0.00256360	0.00235875
Slope	0.00484037	0.00453577	0.00675268	0.00735655	0.00554927	0.00598702
r	0.9972	0.9989	0.9991	0.9989	0.9972	0.9993

- r = Correlation coefficient

**Table 9.0: Precision and Accuracy for Batch – II (Intra Batch) (P&A)**

P&A Batch	QC No.	LLOQ (pg/mL)	%Acc	LQC (pg/mL)	%Acc	MQC (pg/mL)	%Acc	HQC (pg/mL)	%Acc
I	01	20.356	101.78	45.991	76.78	1134.067	94.04	2290.347	94.96
	02	19.363	96.82	57.872	96.61	1132.290	93.89	2275.949	94.36
	03	20.865	104.32	57.583	96.13	1125.227	93.30	2294.416	95.13
	04	19.659	98.30	57.701	96.33	1122.071	93.04	2277.161	94.41
	05	20.054	100.27	57.202	95.19	1130.678	93.75	2312.602	95.88
	06	20.386	101.93	58.290	97.31	1131.886	93.85	2299.189	95.32
Mean		20.114		55.743		1129.370		2291.611	
SD (±)		0.5424		4.7952		4.6705		13.8681	
CV		2.70		8.60		0.41		0.61	
%Accuracy		100.57		93.06		93.65		95.01	
Nominal Conc (pg/mL)		20.000		59.900		1206.000		2412.000	

**Table 10.0: Quality Control Samples for Run Acceptance (RA) of Re-Injection Reproducibility, Dilution Integrity, GMQC, Haemolytic, Lipemic and Concomitant Drug Samples**

Batch	ID	LQC (pg/mL)	%Acc	MQC (pg/mL)	%Acc	HQC (pg/mL)	%Acc
V	RA-01	117.990	196.98*	1136.494	94.24	2300.776	95.39
	RA-02	57.758	96.42	1140.397	94.56	2304.246	95.53
	RA-03	58.773	98.12	1125.780	93.35	2293.976	95.11
	RA-04	79.718	133.08*	1137.994	94.36	2281.949	94.61
	RA-05	58.082	96.97	1134.572	94.08	2306.094	95.61
	RA-06	72.142	120.44*	1140.849	94.60	2288.301	94.87
Nominal Conc. (pg/mL)		59.900		1206.00		2412.000	

\*= % Accuracy was not within the acceptance criteria of 85%- 115%.

**Table 11.0 Precision and Accuracy for Batch – V (Intra Batch) (P&A)**

P&A Batch	QC No.	LLOQ (pg/mL)	%Acc	LQC (pg/mL)	%Acc	MQC (pg/mL)	%Acc	HQC (pg/mL)	%Acc
	01	19.667	98.33	59.872	99.95	1155.849	95.84	2359.982	97.84
	02	19.520	97.60	61.091	101.99	1162.502	96.39	2376.041	98.51
	03	19.111	95.56	59.751	99.75	1166784	96.75	2378.488	98.61
	04	20.859	104.60	60.007	100.18	1167.618	96.82	2390.023	99.09
	05	19.459	97.30	60.154	100.42	1157.155	95.95	2352.948	97.55
	06	20.353	101.77	60.841	101.57	1173.713	97.32	2392.288	99.18
Mean		19.828		60.286		1163.937		2374.962	
SD (±)		0.6496		0.5494		6.7926		15.8091	
CV		3.28		0.91		0.58		0.67	
%Accuracy		99.14		100.64		96.51		98.46	
Nominal Conc (pg/mL)		20.000		59.000		1206.000		2412.000	

**Table 12.0 Precision and Accuracy for Batch – VI (Intra Batch) (P&A)**

P&A Batch	QC No.	LLOQ (pg/mL)	%Acc	LQC (pg/mL)	%Acc	MQC (pg/mL)	%Acc	HQC (pg/mL)	%Acc
IV	01	18.975	94.87	59.768	99.78	1163.282	96.46	2389.839	99.08
	02	19.626	98.13	60.141	100.40	1161.268	96.29	2379.830	98.67
	03	19.446	97.23	60.698	101.33	1164.212	96.53	2351.484	97.49
	04	19.726	98.63	61.359	102.44	1161.360	96.30	2378.551	98.61
	05	19.413	97.06	61.222	102.21	1163.210	96.45	2350.738	97.46
	06	19.756	98.78	60.367	100.78	1160.835	96.25	2351.777	97.50

Mean	19.490		60.593		1162.361		2367.037
SD ( $\pm$ )	0.2891		0.6212		1.3799		17.6442
CV	1.48		1.03		0.12		0.75
%Accuracy	97.45		101.16		96.38		98.14
Nominal Conc (pg/mL)	20.000		59.900		1206.000		2412.000

Table 13.0 Inter-Batch Precision and Accuracy (Global Statistics for four P&amp;A Batches)

P&A	QC No	LLOQ	LQC	MQC	HQC
I	01	20.356	45.991	1134.067	2290.347
	02	19.363	57.872	1132.290	2275.949
	03	20.865	57.583	1125.227	2294.416
	04	19.659	57.701	1122.071	2277.161
	05	20.054	57.020	1130.678	2312.602
	06	20.386	58.290	1131.886	2299.189
II	07	20.496	62.201	1159.436	2410.681
	08	19.756	59.710	1159.774	2381.403
	09	20.869	62.593	1167.974	2399.234
	10	20.440	60.508	1161.185	2383.846
	11	20.280	61.048	1173.706	2405.826
	12	21.205	60.801	1165.864	2394.644
III	13	19.667	59.872	1155.849	2359.982
	14	19.520	61.091	1162.502	2376.041
	15	19.111	59.751	1166.784	2378.488
	16	20.859	60.007	1167.618	2390.023
	17	19.459	60.154	1157.155	2352.948
	18	20.353	60.841	1173.713	2392.288
IV	19	18.975	59.768	1163.282	2389.839
	20	19.626	60.141	1161.268	2379.830
	21	19.446	60.698	1164.212	2351.484
	22	19.726	61.359	1161.360	2378.551
	23	19.413	61.222	1163.210	2350.738
	24	19.756	60.367	1160.835	2351.777
Mean		19.985	59.441	1155.081	2357.387
SD ( $\pm$ )		0.6112	3.2026	15.8962	42.6011
CV%		3.06	5.39	1.38	1.81
% Accuracy		99.93	99.23	95.78	97.74
Nominal Conc (pg/mL)		20.000	59.900	1206.000	2412.000

Table 14.0 Precision and Accuracy of Loperamide in Presence of Concomitant Drugs

ID	LQC (pg/mL)	%Acc	HQC (pg/mL)	%Acc
Con. -01	60.711	101.61	2305.199	95.57
Con. -02	59.288	99.23	2268.069	94.03
Con. -03	59.133	98.97	2272.527	94.22
Con. -04	59.287	99.23	2302.080	95.44
Con. -05	59.140	98.98	2280.742	94.56

Con. -06	60.138	100.65	2284.263	94.70
Mean	59.616		2285.480	
SD (±)	0.6553		15.2266	
CV%	1.10		0.67	
% Accuracy	99.78		94.75	
Nominal Conc (pg/mL)	59.750		2412.000	

Con. = Concomitant

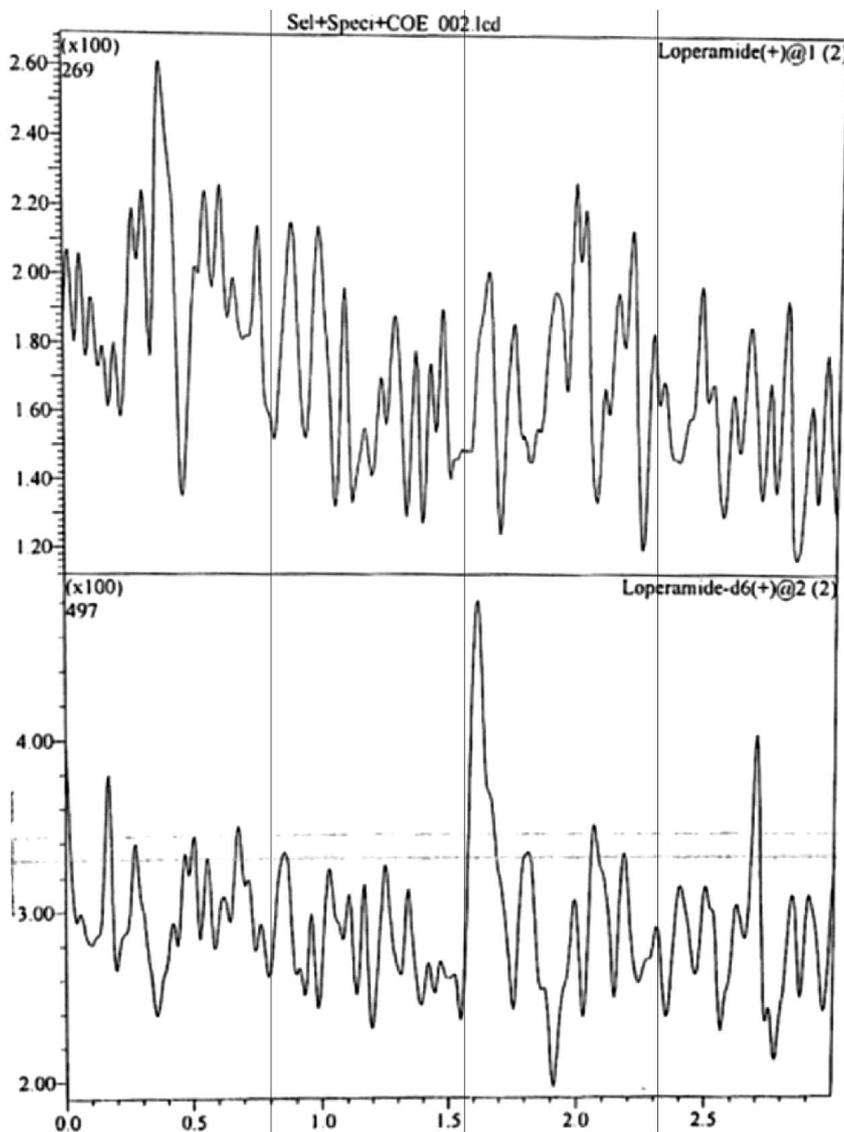


Figure 1: Selectivity of blank plasma

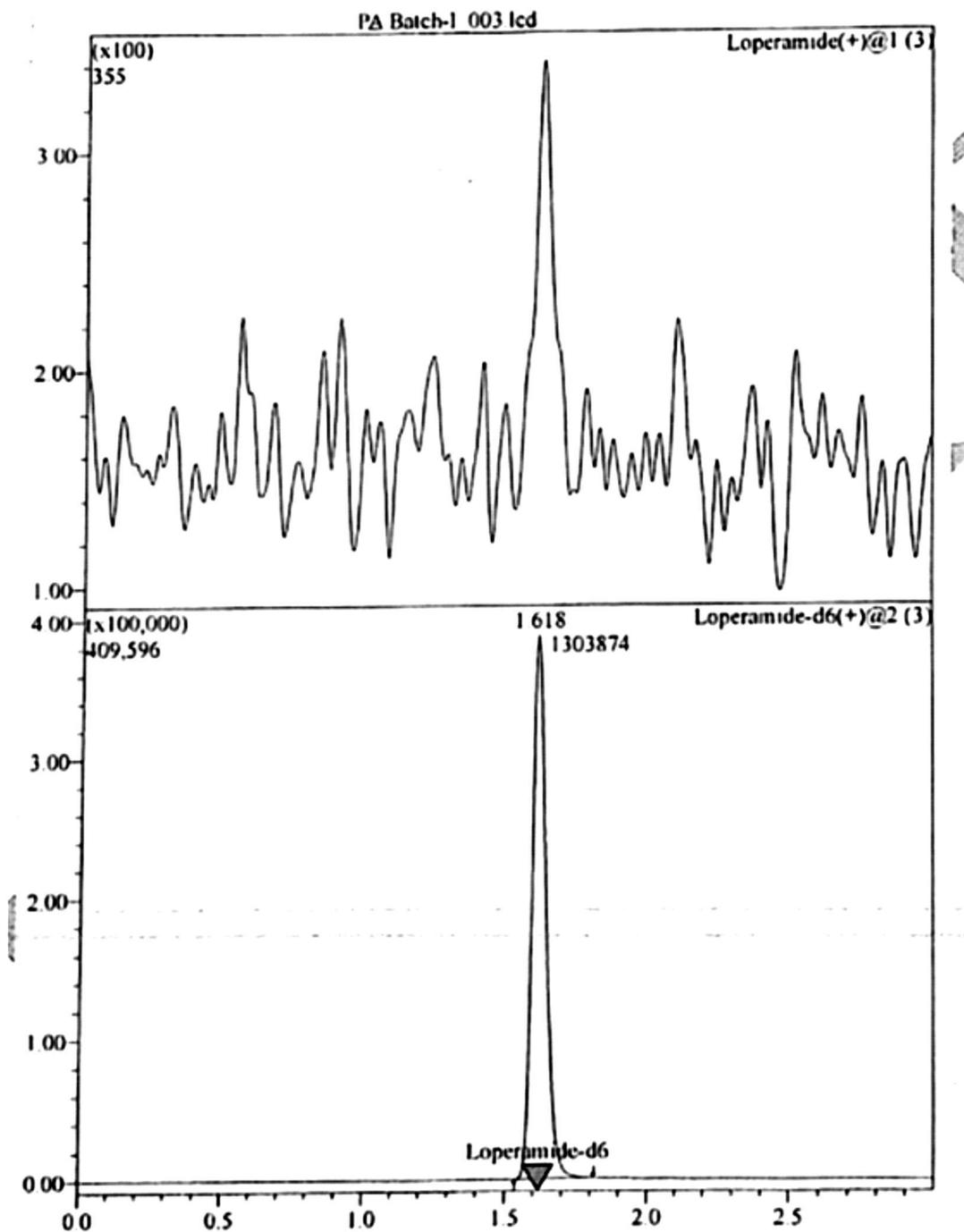


Figure : 2 Precision and Accuracy Blank Plasma with Internal Standard

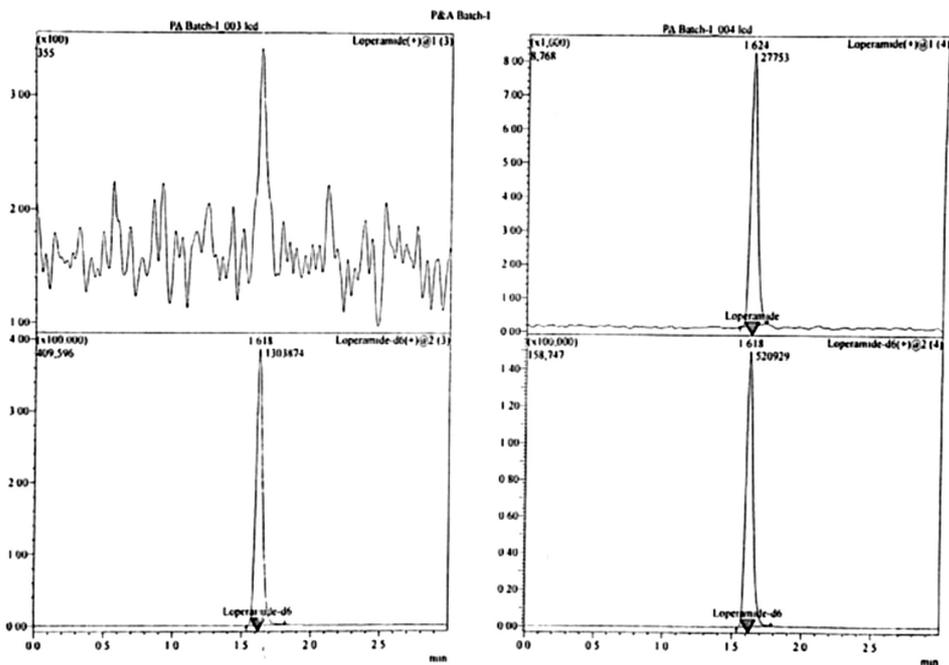
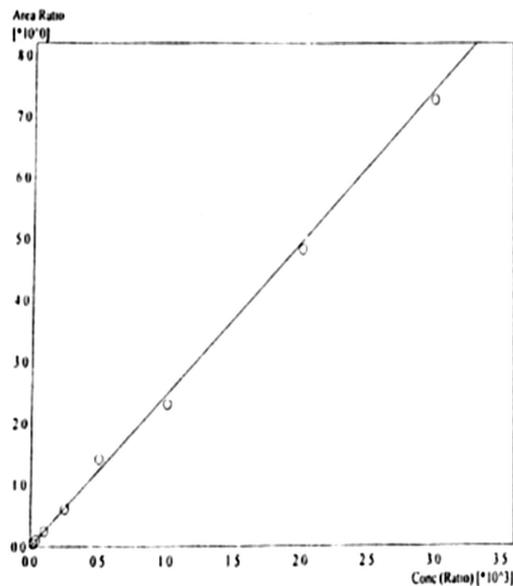


Figure 3: Precision and Accuracy

ID# 1 m/z 477.10-266.20  
 Name Loperamide  
 Quantitative Method Internal Standard  
 Function  $f(x) = 0.00247084 * x + 0.00444017$   
 $R^2 = 0.9972$   $R^2 = 0.9943558$   
 MeanRF 2.527012e-003 RF SD 1.436387e-004 RF %RSD 7.267029  
 Fit Type Linear  
 Weighted Regression 1/C<sup>2</sup>



CC Point	Data File Name	Std Conc (pp/mL)	Area Ratio
1	PA&A Batch-1_004.lcd	20 000	0.05
2	PA&A Batch-1_005.lcd	40 000	0.11
3	PA&A Batch-1_006.lcd	100 000	0.25
4	PA&A Batch-1_007.lcd	250 000	0.60
5	PA&A Batch-1_008.lcd	500 000	1.42
6	PA&A Batch-1_009.lcd	1001 000	2.30
7	PA&A Batch-1_010.lcd	2002 000	4.82
8	PA&A Batch-1_011.lcd	3003 000	7.26

Figure 4: Calibration of Loperamide

## CONCLUSION

During method validation, system suitability was performed & the results obtained were within acceptance criteria (CV d" 3% for area ratio for RT). Based on the results of validation, it can be concluded that the present method is suitable for the estimation of Loperamide in K<sub>2</sub>EDTA human plasma over concentration range of 20.000pg/mL to 3003.000pg/mL. The precision and accuracy are very much within the prescribed limits in this concentration range. The drug was found to be very stable after five freezes – thaw cycles. This method is found to be rugged with changes in column and analyst.

The results of selectivity, matrix effect, sensitivity, linearity, precision and accuracy, stabilities, recovery and dilution integrity presented in this report are within the acceptance range for bioanalytical batch acceptance criteria US FDA acceptance range as per 'Guidance for Industry - Bioanalytical Method Validation' given by VIMTA. Hence the developed method can be used for quantitative determination of Loperamide in human plasma for Bioequivalence studies.

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## GENDER AND SUICIDE: WHY ARE MEN LEADING THE RISE?

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### ABSTRACT

*Globally, suicide rates in males are higher than for females with a constant predominance over time. This review explores why males are more vulnerable to suicide than females. A descriptive comparative documentary review design was applied using resource material published between 1990 and 2011. A social model of male suicide was employed to assist in the analysis while triangulation was applied to cross validate findings. Key findings point to the function of traditional defined gender roles inhibiting males to express emotions and fuel adverse coping strategies by expressing their dissatisfaction with excessive masculinity in the form of aggression and suicide. Further unsuccessful suicide is considered as less acceptable for men driving them to use more lethal methods. Gender differences in suicidal behavior suggest the need to pay more attention to gender roles in suicide research. In conclusion, suicide prevention and intervention require recognition of the role of traditional masculinity, situating individual explanations within a broader social context. Better insights on why males are more vulnerable to suicide will help to design and generate effective strategies for preventing suicidal behavior among them.*

**Keywords:** depression, gender, masculinity, social change, stereotype, suicide.

### INTRODUCTION

Suicide rates vary sorely across global regions and countries. Despite this considerable variability in suicide rates, suicides among males are consistently higher than in females in all reporting countries except China. In contrast, females show higher rates for suicidal ideation and attempts compared to males (Bertolote & Fleischmann 2002), as well as attempted suicide which is found as a leading cause of morbidity in women (O'Loughlin & Sherwood, 2005; Zhang, Mckeown, Hussey, Thompson, & Woods, 2005). The global trend in suicide rates shows a constant predominance of males against females over time with a male-female ratio of 3.6:1 in

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1995 and according to the World Health Organization (WHO) estimation it would reach the ratio of 3.9:1 by 2020 (Bertolote & Fleischmann 2002). This points to a gender difference in suicidal behavior across the globe and this gender gap is increasing over time.

To date, several studies concentrated on explaining suicide and the economic, cultural and psycho-social factors associated with it. However, explaining the increasing gender inequality in suicides remains a challenge in suicide research (Möller-Leimkühler, 2003). Gove explored the relationship between sex, marital status, and suicidal behavior and found greater disparity between married and single men as compared to women (Gove, 1972). This was further supported by a Danish study which showed that during first year after a divorce, men committing suicide was seven times higher than in women (Qin, Agerbo, Westergard-Nielsen, & Eriksson, 2000). This rising gender gap in suicide indicates likely differences in terms of both causal and protective factors among men and women. As Hawton explained, social factors especially gender roles could be important for clarifying suicide trends (Hawton, 2000). Gender perspectives have been used as a powerful analytical tool to explain women's health in research, but it is not yet systematically used to define men's health (Möller-Leimkühler, 2003). This paper applies a gender perspective in exploring factors associated with men's vulnerability towards suicide.

## **METHODS**

A descriptive comparative documentary review design was applied using quantitative and qualitative information produced for distribution during the period 1990-2011 as source materials such as: scientific publications, unpublished reports, and documents available from public access search engines. A Boolean search strategy comprised of key word combinations; using search engines as PubMed, Medline, ScienceDirect, and public search appliances as Google Scholar; facilitated identification of documents published in English. Data-bases of selected key and fringe documents were created using EndNote. Data served a comparative thematic content analysis by employing a social model of male suicide to assist in the analysis while triangulation was applied to cross validate findings.

## **FINDINGS**

Gender is defined as socially constructed roles for both male and female involving defined norms and expectations reproduced by social institutions. Traditional male roles are more characterized by power for dominance, aggressiveness, success and public identity whereas female roles are more diffuse and their identity is linked with social relationships and communication. Being successful may provide positive incentives with social gratification and appreciation for males, however it brings pressure and stress to meet expectations (Grossman & Wood, 1993). Furthermore, males are considered to be more responsible for economic earnings for the entire family and their identity is linked with factors such as: career, income, and public identity whereas females are more responsible to take care of the family and the children (Girard, 1993; Möller-Leimkühler, 2003). In times of difficulties, women receive social support from the family and their children whereas males receive less support because of cultural restrictions to express

their emotions (Möller-Leimkühler, 2003). In addition, a Danish study evidenced that unemployment and retirement were risk factors for male suicide. In contrast having young children was a protective factor for suicide among females. So, negative events such as loss of job or economic hardship directly hit the male identity as compared to females (Qin *et al.*, 2000).

According to the WHO, life expectancy of European males is five to fifteen years lower than for women. This widening gap between male and female life expectancy is explained by a variety of factors such as genetics, and occupational safety, in addition to increased work related stress including its effects on suicides, influencing male life expectancy. For example, Eastern European countries went through a socio-political and economic transition period showing a decrease in male life expectancy by ten years and suicide was a significant contributing factor. In contrast female mortality and morbidity patterns remained constant (Rutz & Rihmer, 2009). In India about 16, 000 farmers commit suicide every year and most of them are male as a result of economic hardship and increased indebtedness (Gruère, Sengupta, Mehta-Bhatt, & I. F. P. R Institute, 2008). These findings point to inability to meet gender role expectations as a potential precursor of higher suicide rates among males.

Traditionally male are taught to be strong and control certain emotions such as fear, anxiety, sadness, grief, or melancholy. Adolescent males may express their dissatisfaction with excessive masculinity in the form of risk taking and aggression. This threshold and restriction for expressing emotions may lead to adverse psychosomatic and psychosocial effects including suicide. Whereas female roles are constructed to maintain social relations and communication, allowing for emotional expression and help seeking behavior (Grossman & Wood, 1993). Often women through social communication and social networks derive strength to deal with problems whereas men because of emotional restrictions become isolated to deal with their problems (Murphy, 1998). Therefore, traditionally defined gender roles and social norms may put males at higher risk for suicide.

Mental disorders, especially depression, is strongly correlated with suicidal behavior and known to underlie more than half of the suicides in the world. Although depression is twice as common in females compared to males, completed suicides is higher among males compared to females (Gove, 1972; Möller-Leimkühler, 2003). The factor related to this gender paradox of low depression and high suicide rate in males as well as high depression and low suicide rates in females may be explained by men's reluctance to seek help. Depressive symptoms are considered as typically feminine symptoms because it is often inconsistent with the masculine stereotype. So, men tend to hide their depression and depend on socially defined behaviors for them such as aggressiveness, acting out, alcohol and drug abuse and anger attacks (Möller-Leimkühler, 2003).

Cultural values and difference in social acceptability of suicide and attempted suicide also explain why suicide and attempted suicide are different for male and female. "Suicide by females is often considered as significant more 'foolish', 'weaker', more 'wrong', and less 'permissible' than suicide by males" (Murphy, 1998). In contrast suicide by males is often considered as

significant less wrong, less foolish and less weak compared to suicide in females (Deluty, 1988). Further, surviving after a suicidal act in males is considered as inappropriate behavior (Hunt, Sweeting, Keoghan, & Platt, 2006). This cultural and social acceptance may restrain female against suicide and this acceptance might act to be protective factor for female. This acceptance could also explain why complete suicide among females is lower despite the fact that females score higher in suicidal attempts compared to males. Another viewpoint is that males tend to choose more lethal methods such as fire arms, jumping from high-rise buildings, or hanging. A study done in eight states of US showed that men are more likely to choose one of the three most lethal methods (firearms, drowning and hanging) whereas women are more likely to choose less lethal methods (e.g. drug overdose/poisoning and piercing) (Spicer & Miller, 2000). Further, revealing feelings of hopelessness to others is nearly unthinkable for males which might prevent them to express their frustration by means of suicidal attempts but failure to reduce these frustrations might drive them to the ultimate act of suicide (Murphy, 1998).

Several studies revealed that alcohol and substance abuse also increases the risk for suicidal behavior. Alcohol act as a catalyst for emotional disturbance, enhance impulsive behavior and may facilitate suicidal acts. Pompili *et al.* (2010) in his review study showed that alcohol use has consistently been implicated in the occurrence of suicidal behavior. Similarly increasing prevalence of drug abuse was found to be associated with increased suicides (Vijayakumar, Nagaraj, & John, 2004; Weiss, Stephens, & Jacobs, 1992). Alcohol and substance abuse is more common in men as well as substance abuse was more common in males committing suicide (Hawton, 2000; Möller-Leimkühler, 2003). Alcohol consumption by males is considered as acceptable behavior and it is also considered as a way to demonstrate masculinity (Möller-Leimkühler, 2003). Alcohol and drug abuse may expedite suicidal acts, as well as susceptibility to stress and might increase the risk of suicidal behavior. It can lead to the social withdrawal, breakdown of social bonds, and social marginalization due to failure in social roles. Breakdown of social bonds further leads to the reduction of self-esteem, loss of support and isolation, increase the risk of depression as well as suicide (Möller-Leimkühler, 2003; Pompili *et al.*, 2010). High prevalence of alcohol and substance abuse in men raises the question whether it could be associated with higher suicide rates among men.

Moller explained that the change in gender roles may increase the vulnerability to suicide across sexes. Nowadays, female participation in the labor market has been increasing. At the same time patriarchal power systems are eroding and declining. The traditional perceptions on the role of men have become less clearly defined and less functional. Educated and working women have become competitors for men (Möller-Leimkühler, 2003). Traditional defined roles at the one hand and increased job insecurity and competition on the other hand threaten the male identity (Vijayakumar *et al.*, 2004). This is especially seen in the developing countries where there is limited or non-existence of social security systems to support people (Vijayakumar *et al.*, 2004). Moller further stated that “significant changes in social roles for women have led to a deconstruction of traditional masculinity which has not yet been substituted by a new role model for men” (Möller-Leimkühler, 2003). Both gender roles can influence each other’s identity;

so, especially in individual crisis situations both male and female can become each other's problem which can trigger suicide.

## DISCUSSION AND CONCLUSIONS

We acknowledge that this review has its limitations such as: (a) not having accessed documents produced in other languages than English; and (b) not all concerned studies may have published papers. Documentary review is inevitably not entirely free of some degree of speculation and inference. However, this review did not aim to establish relationships but to identify key potential precursors that could help explain suicide incidence rates in males. Further study will have to establish our hypotheses.

There are considerable gender differences for both suicidal and attempted suicidal behavior. On the basis of reviewed literature, the gender defined role for males and crisis in masculinity were highlighted as potential factors associated with higher suicide rates in males. The traditional defined role for males makes them often responsible for economic earnings to maintain the family. However, patterns of participation as well as competition in the labor market is changing which increases vulnerability to long term unemployment, and economic hardship for males. Loss of job and unemployment are often attributed to personal failure rather than societal failure which directly hit the male identity. Because of existing cultural barriers for males to express their feelings of helplessness, depression as well as their emotions, males tend to respond to these negative experiences with maladaptive coping strategies such as aggression, anger, violence, alcohol and drug abuse as well as suicide.

The increasing gender differences in suicidal behavior clearly indicate need for further research and investigation in this area. Better insights on why males are more vulnerable to suicide will help to design and generate effective strategies for preventing suicidal behavior among them.

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# EVALUATION OF FINANCIAL PERFORMANCE IN SBI AND ITS ASSOCIATE BANKS BY USING CAMEL APPROACH

*Neelam Tripathi\**

## ABSTRACT

*The performance of Indian banking sector is showing a drastic change by entering into next generation called 'Y' generation. These banks have been transforming through the process of evolution and adoption of the new digital business model like social media and online banking through the smartphones. Banking performance is always taken as an effective measure and indicator for the sound economy. In this paper, an attempt has been made to compare the financial performance and soundness of the State Bank of India and its associates from 2011 to 2016 by using CAMEL approach. Under CAMEL analysis technique, there are several parameters, namely, Capital Adequacy, Asset Quality, Management Quality, Earning Quality, and Liquidity. These have been evaluated comparatively to determine the banking performance over diverse conditions. CAMEL ratings reflect the excellent banking conditions and performance of the SBI and its associates during the selected period. There is a need for bank employees to have sufficient knowledge of the rating system, in order to augment the banking growth rate in the positive direction.*

**Keywords:** Banking performance, Basel norms, CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls), CAMEL, financial analysis, Public Sector Banks, SBI.

## 1. INTRODUCTION:

### 1.1 Role of Banking in economy

Banking sector plays a vital role in economy of each country. It acts as a backbone of national financial system. Indian banking system is set to undergo massive expansion due to several factors including intensive change in evolution of technological process, focus on cost effectiveness and customer satisfaction.

### 1.2 CAMEL concept and components

CAMEL rating system was adopted in October 1987 by the National Credit Union

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Administration (NCUA) based in the U.S. It is an internal tool of measuring risk and allocating resources for supervisory purposes. Several parameters have been taken for evaluation. *Capital Adequacy* represents the sound capital base which strengthen the confidence of depositors, *Assets Quality* represents the ratio of gross non-performing loans to total loans, *Management* requires the professional judgment of banks policies and procedures for risk taking strategic plans, *Earning* represents reasonable profit to support asset growth and to build adequate reserves, *Liquidity* represent the fulfillment of the demand of depositors and creditors and *Sensitivity* reflects the degree of changes and its adverse effect on earnings. The scale ranges between 1 to 5, where 1 shows the 'strongest' and 5 shows 'weakest' performance and efficiency, 2 and 3 are considered 'average' performer and those with rating of 4 and 5 are considered 'below average' performers.

**Table 1: CAMEL Analysis Framework**

CAMEL	Ratio	Formulas	Explanatory Note
C	Capital Adequacy Ratio	$\frac{\text{Tier 1 capital} + \text{Tier 2 Capital}}{\text{Risk Weighted Assets}}$	Tier1 (equity reserves+ total share capital-revaluation reserves)+ Tier 2(revaluation reserves +subordinates debts+ hybrid reserves provision for deferred tax+ total loan loss and other reserves)
	Debt Equity Ratio	$\frac{\text{Total Debt}}{\text{Total Shareholder Equity}}$	Total debt(debt or long term debt or total liabilities)
	Assets Ratio	$\frac{\text{Total Advances}}{\text{Total Assets}}$	Total advances includes receivables and total assets excludes the re-valuation assets value
	Government Securities ratio	$\frac{\text{Government Securities}}{\text{Total investment}}$	Total investment of government in banks
A	Net NPA to Total Assets	$\frac{\text{Total Non Performing Assets}}{\text{Total Assets}}$	Total assets considered net revolution reserves
	Net NPA to Net Advances	$\frac{\text{Total Non Performing Assets}}{\text{Total Advances}}$	Net NPA measured as a percentage of net advances
	Total Investment to Total Assets	$\frac{\text{Total Investment}}{\text{Total Assets}}$	It affected the banks profitability adversely
	Gross NPA to Net Advances	Percentage change in NPA	Lower ratio better the quality of advances
M	Total Advances to Total Deposits	$\frac{\text{Total Advances}}{\text{Total Deposits}}$	Total deposits include demand deposits, saving deposits, term deposits and deposits of other banks. Total Advances also include the receivables.

	Profit per Employee	Revenue-Operating Expenses/Full time equivalent	Indicates the surplus earned by per employee
	Business per employee	Revenue/Number of employee	Business, per employee relates to the sum of Total Deposits and Total Advances in a particular year
	Return on Net Worth	Net Income/ Shareholder Equity	It shows the utilization of shareholder investments
<b>E</b>	Operating Profit to Average working funds	Operating Profit / Working Funds	Working Fund = Average of total Assets / Liabilities
	Net Profit to Average Assets	Net Profit/Average Assets	Average Assets = Total Assets of previous and current Assets
	Net Interest Margin to Total Assets	Interest Income- Interest expanded on total assets	Interest Income= Dividend Income+ Interest paid in deposits+ Loan from RBI+ Short term loan+ Long term loans
<b>L</b>	Liquid Assets to Demand Deposits	Liquid Assets/Demand Deposits	Liquid assets= cash in hand, balance with RBI+ Balance with other banks( India and abroad)+money at call
	Liquid Assets to Total Deposits	Liquid Assets/ Total Deposits	Total deposit=Demand Deposit+Saving Deposits+Term Deposits+Deposits from

## 2. LITERATURE REVIEW

**Rao and Datta (1998)** made an attempt to derive rating based on CAMEL. In their study, based on these five groups (C-A-M-E-L), 21 parameters in all were developed. After deriving separate rating for each parameter, a combined rating was derived for all nationalized banks (19) for the year 1998. The study rated the Corporation Bank as the best followed by the Oriental Bank of Commerce, Bank of Baroda, Dena Bank, Punjab National Bank, etc. The worst rating was found to be of Indian Bank preceded by the UCO Bank, United Bank of India, Syndicate Bank and Vijaya Bank.

**Prasuna (2004)** analyzed the performance of Indian banks by adopting the CAMEL Model. The performance of 65 banks was studied for the period 2003-04. The author concluded that the competition was tough and consumers benefited from it. Better services quality, innovative products, better bargains are available to the Indian customers. The coming fiscal would prove to be a transition phase of Indian banks, as they would have to align their strategic focus on increasing interest rates

**Veni (2004)** studied the Capital Adequacy requirement of banks and the measures adopted by them to strengthen their Capital Ratios. The author highlighted that the rating agencies give prominence to Capital Adequacy Ratios of banks while rating the bank's certificate of deposits, fixed deposits and bonds. They normally adopt CAMEL Model for rating banks. Thus, Capital Adequacy is considered as the key element of bank rating.

**Satish et al. (2005)** adopted CAMEL model to assess the performance of Indian banks. The authors analyzed the performance of 55 banks for the year 2004-05, using CAMEL Model. They concluded that the Indian banking system looks sound and Information Technology would help the banking system grow in strength while advancing into future. Banks' Initial Public Offers (IPOs) would be hitting the market to increase their capital and gearing up for the Basel-II norms.

**Bodla and Verma (2006)**, in their paper, authors made an attempt to examine and compare the performance of two largest banks of India - SBI, a public sector bank; and ICICI a private sector bank - through CAMEL Model. They found the then supervision system in banking sector was a substantial improvement over the earlier system in terms of speed, coverage and focus and also the tool employed. Two supervisory rating models based on CAMEL (Capital Adequacy, Assets Quality, Management, Earning, Liquidity, Systems and Controls) and CACS (Capital Adequacy, Assets Quality, Compliance, Systems and Controls) factors for ranking the Indian and foreign banks were done. These models have been worked out on the recommendation of Padamanabhan Working Group (1995). These ratings would enable the RBI (Control Bank) to identify the banks whose conditions warrant special supervision attention.

**Sisodiya et al. (2008)**, in their article titled, "*Indian Banking Industry: Sustaining the Growth Momentum*" revealed that the banking sector in India has once again come out with another fiscal of robust performances. The authors ranked banks on the basis of the CAMEL (Capital Adequacy, Assets Quality, Management, Earning and Liquidity) rating. They analyzed 68 banks for the year 2007-08. On the basis of ranking of each measure of CAMEL Model, they selected five banks under following categories: Capital Adequacy winner (PSU banks), Assets Quality winner (Private sector banks), Management Efficiency winner (PSU banks), Earning Quality winner (Private sector banks) and Liquidity winner (PSU banks).

**Sangmi and Nazir (2010)** have taken two major banks of North India namely, Punjab National Bank and Jammu and Kashmir Bank on the basis of their role and participation in influencing the financial condition of North India. They applied the CAMEL Model on these two banks by taking the Annual Report data from 2001-2005, and found out that both the banks were

financially sound and suitable as far as their capital adequacy, asset quality, management capability and liquidity was concerned.

**Mishra and Kumari (2011)** selected 12 public and private sector banks on the basis of market capture and measured the efficiency and soundness by CAMEL Model. From the analysis they ranked the banks. They found that HDFC took the lead followed by ICICI and Axis Bank. Bank of Baroda and Punjab National Bank followed the fourth position held by the IDBI and Kotak Mahindra Bank. Public Sector Banks like SBI and Union Bank took the back seat. The Report found that Private Sector Banks are performing better than Public Sector Bank.

**Jha and Hui (2012)** tried to find out the factors affecting the performance of Nepalese Commercial Banks By using various CAMEL ratios such as Return on Asset (ROA), Return on Equity (ROE), Capital Adequacy Ratio (CAR) etc. As public sector banks have higher total assets compared to joint venture or domestic private banks, their ROA was found higher whereas overall performance of public sector was unsound because ROE and CAR of joint venture and private banks was found superior. The financial performance of public sector banks is being eroded by other factors such as poor management, high overhead cost, political intervention, low quality of collateral etc.

**Chaudhary (2014)** conducted a study to measure the right performance of public and private sector banks by the use of secondary data collected from annual reports, periodicals, website etc. for the year 2009-2011 and found out that in every aspect private sector bank have has performed better than public sector banks and they are growing at faster pace.

## **OBJECTIVES OF RESEARCH**

- To understand the financial performance of State Bank of India and its associates;
- To describe the CAMEL model of banking and the rating range for the same;
- To analyze the banks performance through CAMEL analysis;
- To suggest for improvement if necessary.

## **3. HYPOTHESES**

**Ho1:** There is no significant difference between SBI and its associate banks on the basis of Capital Adequacy Ratio from the CAMEL analysis.

**Ha1:** There is a significant difference between SBI and its associate banks on the basis of Capital Adequacy Ratio from CAMEL analysis.

## **4. DATA COLLECTION**

Secondary data were collected from the Annual Reports, which was published by the RBI.

## 5. DATA ANALYSIS AND DESCRIPTIONS

**CAPITAL ADEQUACY RATIO (CAR)** is a measuring tool of a bank's capital. It is expressed as the percentage of a bank's risk weighted exposures. It is also known as Capital-to-Risk Weighted Assets Ratio (CRAR). It is used to protect depositors and promote the stability and efficiency of financial systems around the world. Two types of capital are measured: Tier I capital, which can absorb losses without a bank being required to cease trading, and Tier 2 capital, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors.

BANKS	Capital Adequacy Ratio –Basel II (as on 31 <sup>st</sup> March of the Year)						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	11.98	13.86	12.92	12.44	12.00	13.12	12.72	1
State Bank of Bikaner & Jaipur	11.68	13.76	12.16	11.55	11.57	11.06	11.96	4
State Bank of Hyderabad	14.25	13.56	12.36	12.00	11.26	11.62	12.50	2
State Bank of Mysore	13.76	12.55	11.79	11.50	12.02	12.43	12.34	3
State Bank of Patiala	13.41	12.30	10.37	10.38	12.06	11.50	11.67	5
State Bank of Travancore	12.54	11.18	9.44	10.79	10.89	11.60	11.07	6

### ANALYSIS AND INTERPRETATION

The State Bank of India and its associate Banks namely State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore have approximately equal amount of CRAR with 12.72, 11.96, 12.50, 12.34, 11.67 and 11.07. It implies that these banks have greater capacity to adapt to the loss if occurs though State Bank of India has highest ranking in CRAR in Basel II. On the other hand State Bank of Travancore has taken the last positions with CRAR at 11.07%, which is the least. So, State Bank of Travancore does not have much capacity to adapt to its losses. All the banks have followed the guidelines of RBI and have maintained the CRAR of 9%.

**DEBT EQUITY RATIO** This ratio indicates the degree of leverage of a bank. It represents the figure of the proportion of the bank business that is financed through equity and through debt. It is obtained by dividing total borrowings with shareholders' net worth. Higher ratio gives an indication of less protection for the creditors and depositors and its lower ratio represents more security for the creditors and depositors in banks. Investors or lenders and depositors usually prefer low debt-to-equity ratios because their interests are better protected in the event of a business decline. On the basis of this, banks with high debt-to-equity ratios may not be able to attract additional borrowing. The debt to equity ratio is considered a balance sheet ratio because all of the elements are reported on the balance sheet.

**Table 2 :Debt Equity Ratio**

BANKS	Debt/Equity						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	5.96	14.08	14.06	14.0	14.02	13.9	12.67	3
State Bank of Bikaner & Jaipur	1.05	15.49	16.36	15.05	15.27	14.67	12.98	4
State Bank of Hyderabad	0.99	1.30	1.61	3.12	2.24	3.37	2.10	1
State Bank of Mysore	0.89	13.71	14.06	16.81	16.45	16.03	12.99	5
State Bank of Patiala	1.24	1.35	1.62	3.17	3.88	3.98	2.54	2
State Bank of Travancore	1.64	20.45	21.39	21.02	18.06	17.28	16.64	6

**ANALYSIS AND INTERPRETATION**

The State Bank of Hyderabad secures first position in Debt-Equity ratio with 2.10 followed by the State Bank of Patiala with 2.54. The State Bank of India, State Bank of Bikaner and Jaipur, State Bank of Mysore and State Bank of Travancore stands have lower figure with average of 12.67, 12.98, 12.99 and 16.64 times. It means that the creditors and depositors of the State Bank of Hyderabad and the State Bank of Patiala are more secured as they are using less debt in comparison with other four banks, whereas creditors and depositors of the State Bank of Mysore and the State Bank of Bikaner and Jaipur are at higher risk as they are focusing more on debt rather than the shareholder's wealth. The State Bank of Travancore is placed last for the highest risk with Debt-Equity Ratio of 16.64.

**ADVANCES- ASSETS-RATIO** is a ratio that indicates the relationship between the total advances and total assets in the banks. This ratio expresses bank's aggressiveness in lending process which ultimately produces better profitability. Under this head, a higher ratio indicates the better preference in comparison with a lower one.

**Table 3: Advances/ Assets Ratio**

BANKS	Advances/ Assets Ratio(%)						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI )	61.80	82.03	85.06	85.08	82.04	83.0	79.83	2
State Bank of Bikaner & Jaipur	65.50	81.13	80.76	80.95	80.69	76.48	77.58	3
State Bank of Hyderabad	60.70	58.02	63.43	68.08	67.52	69.12	64.48	6
State Bank of Mysore	65.40	78.77	77.85	77.40	74.97	73.60	74.67	4
State Bank of Patiala	63.30	81.36	88.54	89.84	94.87	65.29	80.53	1
State Bank of Travancore	64.90	77.43	78.27	73.24	71.95	65.18	71.82	5

**ANALYSIS AND INTERPRETATION**

The State Bank of Patiala has got the highest position in Advances to Assets ratio with

figure of 80.53% followed by the State Bank of India with 79.83%. The State Bank of Bikaner and Jaipur, State Bank of Mysore and State Bank of Travancore holds the next positions with figure of 77.58%, 74.67 and 71.85%, respectively. The State Bank of Hyderabad holds the last position with figure of 64.48%. Average figure of all the Banks are approximately same indicating that all the banks have a good lending policy. But, the State Bank of Patiala and the State Bank of India have adopted a better lending policy as compared with other banks because their ratios are much higher, which would definitely increase the profits of the banks.

### GOVERNMENT SECURITY TO TOTAL INVESTMENT RATIO (%)

This ratio reflects the risk involved in a bank's investment. It is calculated by dividing the amount invested in government securities by total investment. Since government securities are risk-free, higher the proportion of government securities in total investment, lower will be the risk involved in a bank's investment and vice versa. In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs). Government securities carry practically no risk of default and, hence, are called risk-free gilt-edged instruments. Government of India also issues savings instruments (Savings Bonds, National Saving Certificates (NSCs), etc.) or special securities (oil bonds, Food Corporation of India bonds, fertilizer bonds, power bonds, etc.). They are, usually not fully tradable and are, therefore, not eligible to be SLR securities.

**Table 4: Government Securities to Total Investment Ratio**

BANKS	Government Securities/ Total investment						Average	Rank
	2011	2012	2013	2014	2015	2016		
State Bank of India (SBI)	78.05	82.54	77.54	76.36	75.53	77.22	77.87	6
State Bank of Bikaner & Jaipur	97.16	97.00	87.72	93.11	91.84	91.39	93.03	1
State Bank of Hyderabad	81.20	97.90	98.41	92.98	85.10	92.12	91.28	3
State Bank of Mysore	88.34	84.32	86.23	82.44	81.65	93.05	86.00	4
State Bank of Patiala	97.82	94.19	92.84	87.16	84.51	94.69	91.86	2
State Bank of Travancore	80.10	81.06	85.81	84.18	83.88	77.56	82.09	5

### ANALYSIS AND INTERPRETATION

Five Banks namely, State Bank of India, State Bank of Bikaner and Jaipur, State Bank of Hyderabad, State Bank of Mysore, State Bank of Patiala and State Bank of Travancore have invested equal amount of money in government securities in proportion to its total investments. It indicates that investments of State Bank of India and its Associates are on safer side. The State Bank of Bikaner and Jaipur secures first position with 93.03% of investments in government securities. On the other hand State Bank of India secures last position with low percentage of

77.86%. This reflects how investments of State Bank of India in debt instruments are at a higher risk in comparison with other five Banks.

## COMPOSITE CAPITAL ADEQUACY

**Table 5: COMPOSITE CAPITAL ADEQUACY**

BANKS	Capital Adequacy Ratio		Debt- Equity Ratio		Advances/ Assets Ratio		Government Security ratio to Total Investment		Group Rank	
	%	Rank	%	Rank	%	Rank	%	Rank	Average	Rank
SBI	12.72	1	12.67	3	79.83	2	77.87	6	5.64	4
SBBJ	11.96	4	12.98	4	77.58	3	93.03	1	3.54	5
SBH	12.50	2	2.10	1	64.48	6	91.28	3	5.73	3
SBM	12.34	3	12.99	5	74.67	4	86.00	4	6.20	2
SBP	11.67	5	2.54	2	80.53	1	91.86	2	2.72	6
SBT	11.07	6	16.64	6	71.82	5	82.09	5	7.79	1

## ANALYSIS AND INTERPRETATION

On the basis of group averages of five sub-parameters of capital adequacy, SBT was at the top position with group average of 7.79, followed by the SBM (6.20), SBH (5.73), SBI (5.64) and SBBJ (3.54). SBP stood at the last position due to its poor performance in CAR, Advances to assets and also due to less investment in Government Securities.

## CONCLUSION

The results of study shows that the State Bank of Travancore is leading in all the aspects of CAMEL followed by the State Bank of Maharashtra in Capital Adequacy, Management efficiency and Earning capacity and State Bank of India in Asset Quality, whereas State Bank of India has not performed well according to the study though it holds highest amount of assets and cash reserves. State Bank of Hyderabad has always remained in the middle position. There has been a significant change in the performance of these banks throughout the years. The Associate Banks of SBI have performed really well due to radical change in the banking sector in the recent years.

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## ASSESSING SELF-CONCEPT AND SCHOOL ADJUSTMENT LEVEL OF CHILDREN WITH LEARNING DISABILITY

*Priyanka Pandey\**

### ABSTRACT

*The aim of the present paper is to study attachment and personality in a person with self-concept, their school adjustment and learning disability. Thereafter to compare them with normal children. The data for self-concept, school adjustment and learning disability has been collected from rehabilitation centres in Delhi and NCR. For normal population, data has been collected from different schools in Delhi and NCR. A total sample of 60 children studying in Grade 8 to 12 in different schools was selected based on their previous academic performance of the class-tests and teacher's rating. They were further tested on Adjustment inventory for school studies developed by A.K.P. Sinha and R.P. Singh and Self concept questionnaire developed by Dr.Raj Kumar Saraswat. Children with learning disability obtained significantly low score in self-concept and adjustment when compared to normal children. The result indicates a significant relationship between self concept and adjustment. In general, the results indicated that the better adjustment people have better ability to make progress in their life. However, the differences between the groups were found to be low suggesting that suitable remedial/ intervention programmes may bring the children with difficulty at par with normal children.*

**Keywords:** adjustment, Adjustment inventory, Dr. Raj Kumar Saraswat, K. P. Sinha and R.P.Singh questionnaire, learning disability, Self-concept, Self concept Questionnaire.

### INTRODUCTION

The term self-concept is a general term used to refer to how someone thinks about, evaluates or perceives themselves. To be aware of oneself is to have a concept of oneself. In psychology, there is another important concept of adjustment which refers to the behavioural process of balancing on flicking needs or needs against obstacles in the environment. Humans and animals regularly do this For example when they are stimulated by their physiological state to seek food, they eat to reduce their hunger and thus adjust to the hunger stimulus.

Applying the same for school going children, the concept of school adjustment has been derived by the psychologists. School adjustment is the process of adapting to the role of being a

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student and various aspects of the school environment. Failure to adjust can lead to mental issues and school refusal or school dropout and may require school counselling. According to the National Committee on Learning Disabilities (NCLD 1987), learning disability is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematics and abilities. A child with Learning Disability appears to exhibit emotional problems due to adjustment difficulties resulting from academic failure. Sometimes kids have trouble expressing their feelings, calming themselves down, and reading nonverbal cues, which can lead to difficulty in the classroom and with their peers. Students with undetected learning disabilities might demonstrate undesirable behaviour for a variety of reasons. They might feel angry, sad, lonely, frustrated, or hopeless as a result of focusing on their difficulties. Special needs students are deprived of a suitable education when they are taught at a mismatched level with students who are significantly above their level. Children with learning disabilities may have problems with academics, social, home and emotional aspects. These problems they may overcome through attending special education classes and parental attention.

## **REVIEW OF LITERATURE**

Firstly, Chapman (1988) reviewed studies published between 1947 and 1986. He concluded that most studies from the time period inspected indicated that children with LD were more likely to have negative self-perceptions.

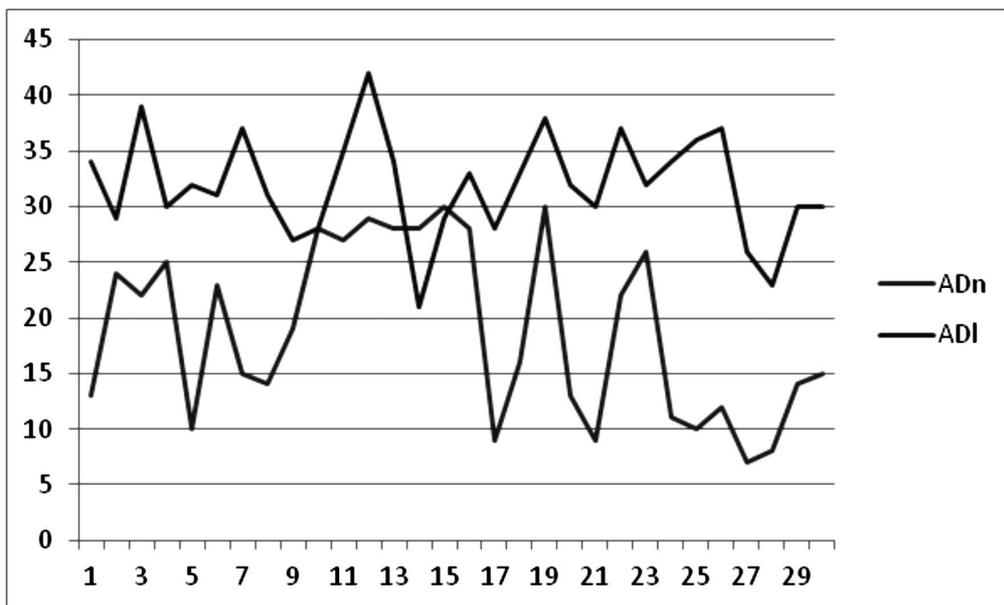
A study was conducted in Nepal in 1991 to assess the factors affecting learning disabilities in mathematics. 58 learning disabled boys and 46 learning disabled girls from 29 rural and 15 urban schools participated in the study. The analysis of these 104 learning disabled students' biodata revealed that the factors related to the children with learning disability in mathematics were 'poor instruction', 'parent's adverse behaviour to them', and 'teacher's negligence in the class.'<sup>5</sup>

A more recent meta-analytic review carried out by Zeleke (2004) inspecting the self-concept of LD pupils in comparison with NA pupils took a more rigorous approach. However some research has indicated that poor readers have more negative reading of the self-concepts than good readers (van Kraayenoord & Schneider, 1999; Roeschl-Heils, Schneider & Kraayenoord, 2003)

Two key components in academic self-concept are verbal and mathematical self-concept (Marsh, Byrne, & Shavelson, 1988). If students have difficulty in either of these two facets, their academic self-concept will diminish. These two realms of academic self-concept are also very important for students with LD.

**RESULTS AND DISCUSSION****TABLE 1: Score of Adjustment Questionnaire of Normal Students and Learning Disability Students**

<b>S.No</b>	<b>Adj N</b>	<b>Adj LD</b>
1.	13	34
2.	24	29
3.	22	39
4.	25	30
5.	10	32
6.	23	31
7.	15	37
8.	14	31
9.	19	27
10.	28	28
11.	27	35
12.	29	42
13.	28	34
14.	28	21
15.	30	29
16.	28	33
17.	9	28
18.	16	33
19.	30	38
20.	13	32
21.	9	30
22.	22	37
23.	26	32
24.	11	34
25.	10	36
26.	12	37
27.	7	26
28.	8	23
29.	14	14
30.	15	30



**Figure 1: ADn and ADI**

**Adj N** : Adjustment scores of normal students

**Adj LD**: Adjustment scores of learning disability

$r = 0.17553$

**TABLE 2: Scoring of Self-concept Questionnaire among Normal Students and Learning Disability Students**

S.No	SC.N	SC.LD
1.	192	189
2.	174	147
3.	189	176
4.	155	175
5.	183	185
6.	166	184
7.	190	194
8.	178	176
9.	173	181
10.	181	178
11.	212	138
12.	164	142
13.	126	155
14.	120	160

15.	153	199
16.	176	136
17.	171	159
18.	136	161
19.	136	169
20.	128	153
21.	142	181
22.	120	171
23.	166	155
24.	178	157
25.	179	151
26.	205	135
27.	212	184
28.	213	140
29.	210	156
30.	222	135

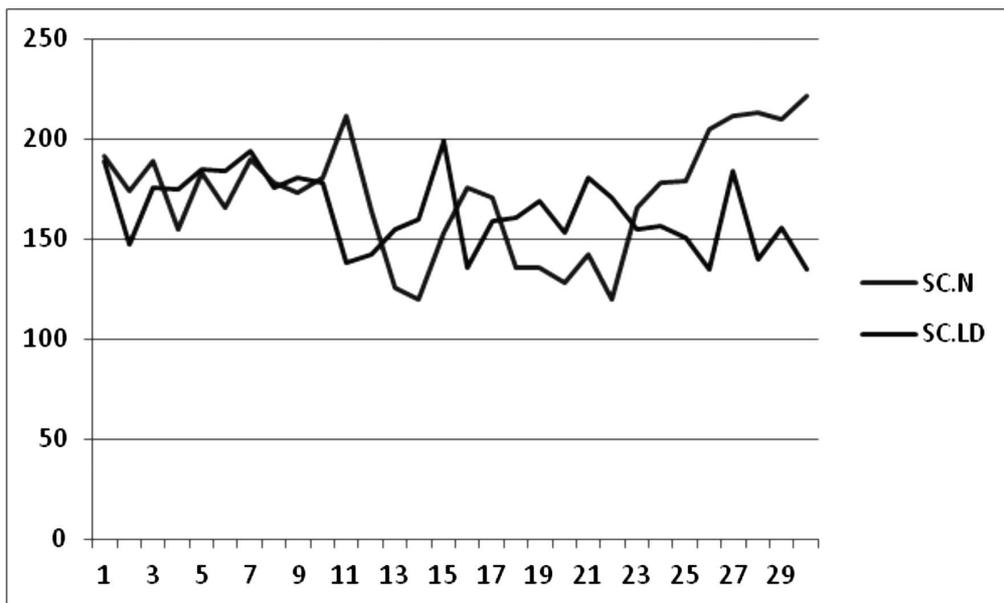


Figure 2: SC.N and SC.LD

**SC.N:** Self- concept scores of normal students

**SC.LD:** Self -concept scores of learning disability

$r = -0.19268$

**TABLE 3: Correlation Calculation for Self -concept Student and Adjustment of Normal Students**

<b>S.No</b>	<b>SCn</b>	<b>Adj n</b>
1.	192	13
2.	174	24
3.	189	22
4.	155	25
5.	183	10
6.	166	23
7.	190	15
8.	178	14
9.	173	19
10.	181	28
11.	212	27
12.	164	29
13.	126	28
14.	120	28
15.	153	30
16.	176	28
17.	171	9
18.	136	16
19.	136	30
20.	128	13
21.	142	9
22.	120	22
23.	166	26
24.	178	11
25.	179	10
26.	205	12
27.	212	7
28.	213	8
29.	210	14
30.	222	15

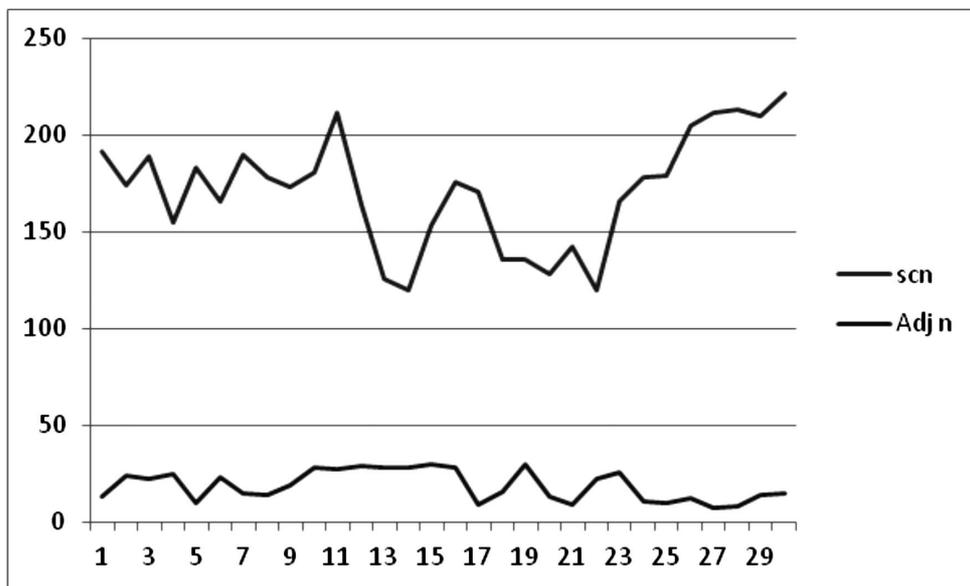


Figure 3: SCn and Adj n

SCn: Self-concept score of normal students

Adj n: Adjustment score of normal students

r = -0.404629

TABLE 4 : Correlation between Self- concept and Adjustment among Students

S.No	SC LD	Adj LD
1.	189	34
2.	147	29
3.	176	39
4.	175	30
5.	185	32
6.	184	31
7.	194	37
8.	176	31
9.	181	27
10.	178	28
11.	138	35
12.	142	42
13.	155	34
14.	160	21
15.	199	29

16.	136	33
17.	159	28
18.	161	33
19.	169	38
20.	153	32
21.	181	30
22.	171	37
23.	155	32
24.	157	34
25.	151	36
26.	135	37
27.	184	26
28.	140	23
29.	156	14
30.	135	30

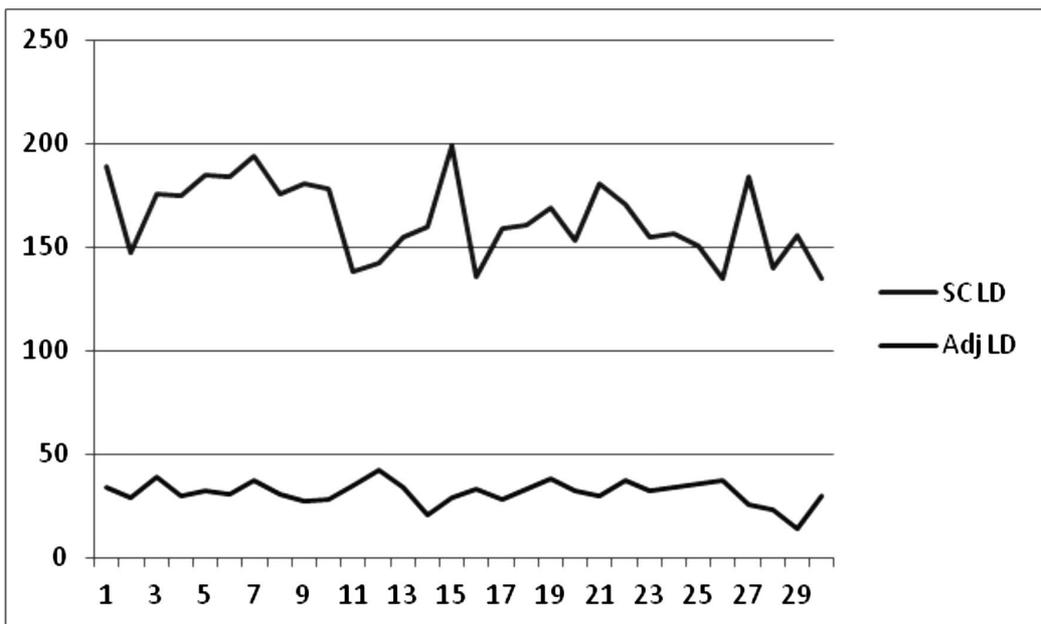


Figure 4: SC LD and Adj LD

**SC LD:** Self concept score of learning disability students.

**Adj LD:** Adjustment score of learning disability students.

$r = -0.04130$

## DISCUSSION

This study examined self concept and school adjustment of children with LD with the normal children. The present study found no significant differences in self-concept and adjustment between the children with LD and non LD. As both groups exceeded the normative range in self-concept and adjustment, it can be inferred that in general, the children with LD did not generally have a lower self-concept and adjustment compared with children without LD. This finding contradicts studies that reported children with LD to have a lower concept and adjustment than non-LD children (Ayres & Cooley, 1990; Clever *et al.*, 1992; Hiebert *et al.*, 1982; La Greca & Stone, 1990; Rogers & Sakolfske, 1985). Rather, the present results support other studies reporting that the general self-concept of children with LD is not significantly lower than the normal (Bear *et al.*, 1991; Bear *et al.*, 1993; Clever *et al.*, 1992; Coleman 1983a; Grolnick & Ryan, 1990; Kistner *et al.*, 1987; Sabornie, 1994).

## CONCLUSION

It may be concluded from the study that children with learning disability had slightly low level of self-concept and adjustment compared to normal children. Though significant differences were observed by the self-concept questionnaire developed by Dr. Raj Kumar Saraswat and Adjustment inventory questionnaire for school students developed by A. K. P. Sinha and R.P. Singh. The differences were not huge in terms of percentage of scores. This suggests that appropriate intervention/remedial programmes may help those children with learning disabilities to overcome their problems. Essential support from parents and teachers may play crucial role in this regard.

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## MERGER AND ACQUISITIONS IN INDIA

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### ABSTRACT

*The economic reforms process initiated by the Government of India in the last two decades has undoubtedly shown a path to Indian corporate houses to attain global scale and competitiveness. This has given rise to mergers and acquisition activity in India on a very large scale. In the year 2014 Indian companies were involved in M&A transactions worth US \$ 33 billion whereas in the year 2015, the value of M&A activity dipped to US \$ 20 billion. In 2015-16(FY 2016), M&A deals were worth \$27.62 billion. Last financial year saw record M&A activity worth \$61.26 billion. This paper discusses various Indian corporate and securities law pertaining to the M & A activity.*

**Keywords:** Competition Commission of India, Merger & Acquisition, RBI, SEBI.

### INTRODUCTION

Indian enterprises were subjected to strict control regime before 1990s. This has led to haphazard growth of Indian corporate enterprises during that period. The reforms process initiated by the Government since 1991, has influenced the functioning and governance of Indian enterprises which has resulted in adoption of different growth and expansion strategies by the corporate enterprises. In that process, Mergers and Acquisitions (M&As) have become a common phenomenon. M&As are not new in the Indian economy. In the past also, companies have used M&As to grow organic and inorganic. Indian corporate enterprises are refocusing in the lines of core competence, market share, global competitiveness and consolidation. This process of refocusing has further been hastened by the arrival of foreign competitors. In this backdrop, Indian corporate enterprises have undertaken restructuring exercises primarily through M&As to create a formidable presence and expand in their core areas of interest.

The economic reforms process initiated by the Government of India in the last two decades has undoubtedly shown a path to Indian corporate houses to attain global scale and competitiveness.

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This has given rise to mergers and acquisitions activity in India on a very large scale. In the year 2014 Indian companies were involved in transactions worth US \$ 33 billion whereas in the year 2015, the value of M&A activity dipped to US \$ 20 billion. In 2015-16(FY 2016), M&A deals were worth \$27.62 billion. Last financial year saw record M&A activity worth \$61.26 billion.

The coming year is expected to be a booming year in terms of M&A activity as the investor community has seen certainty in new government's reform agenda and the policies have been largely formulated to encourage foreign investments. Sectors such as IT-ITes, healthcare, energy, pharmaceuticals, e-commerce and banking and financial services, were the key sectors in 2015.

## **MERGER & ACQUISITIONS**

A 'merger' is a combination of two or more entities into one; the desired effect being not just the accumulation of assets and liabilities of the distinct entities, but organization of such entity into one business. The possible objectives of mergers are manifold - economies of scale, acquisition of technologies, access to sectors / markets etc.

Our laws envisage that mergers can occur in more than one way, for example in a situation in which the assets and liabilities of a company (merging company) are vested in another company (the merged company). The merging company loses its identity and its shareholders become shareholders of the merged company. Another method could be, when the assets and liabilities of two or more companies (merging companies) become vested in another new company (merged company). The merging companies lose their identity. The shareholders of the merging companies become shareholders of the merged company.

An 'acquisition' or 'takeover' is the purchase by one person, of controlling interest in the share capital, or all or substantially all of the assets and/or liabilities, of the target. A takeover may be friendly or hostile, and may be affected through agreements between the offeror and the majority shareholders, purchase of shares from the open market, or by making an offer for acquisition of the target's shares to the entire body of shareholders.

Acquisitions may be by way of acquisition of shares of the target, or acquisition of assets and liabilities of the target. In the latter case the business of the target is usually acquired on a going concern basis. Such a transfer is referred to as a 'slump sale' under the Income Tax Act (ITA) and benefits from favorable taxing provisions vis-à-vis other transfers of assets/liabilities. Section 2(42C) of the ITA defines slump sale as a "transfer of one or more undertakings as a result of the sale for a lump sum consideration without values being assigned to the individual assets and liabilities in such sales".

## **CORPORATE AND SECURITIES LAWS**

### **Company Law for Merger**

Sections 390 to 394 of the Companies Act, 1956 (herein after called the Act, 1956) (the "Merger Provisions") and Section 230 to 234 of Companies Act, 2013 govern mergers and

schemes of arrangements between a company, its shareholders and/or its creditors. However, considering that the provisions of Companies Act, 2013 have not yet been notified, the implementation of the same remains to be tested. The currently applicable Merger Provisions are in fact worded so widely, that they would provide for and regulate all kinds of corporate restructuring that a company can possibly undertake, such as mergers, amalgamations, demergers, spin-off/hive off, and every other compromise, settlement, agreement or arrangement between a company and its members and/or its creditors.

Since a merger essentially involves an arrangement between the merging companies and their respective shareholders, each of the companies proposing to merge with the other(s) must make an application to the Company Court having jurisdiction over such company for calling meetings of its respective shareholders and/or creditors. The Court may then order a meeting of the creditors/shareholders of the company. If the majority in number representing 3/4th in value of the creditors and shareholders present and voting at such meeting agrees to the merger, then the merger, if sanctioned by the Court, is binding on all creditors/shareholders of the company. The Merger Provisions constitute a comprehensive code in themselves, and under these provisions Courts have full power to sanction any alterations in the corporate structure of a company. For example, in ordinary circumstances a company must seek the approval of the Court for effecting a reduction of its share capital. However, if a reduction of share capital forms part of the corporate restructuring proposed by the company under the Merger Provisions, then the Court has the power to approve and sanction such reduction in share capital and separate proceedings for reduction of share capital would not be necessary.

Sections 230 to 234 of Companies Act, 2013 recognize and permit a merger/reconstruction where a foreign company merges into an Indian company. Although the Merger Provisions do not permit an Indian company to merge into a foreign company, the merger provisions under Section 234 of the Companies Act, 2013 do envisage this, subject to rules made by the Government of India. However, neither is Section 234 currently in force nor have any rules been formulated by the Government of India.

### **Company Law for Acquisition**

Acquisitions may be via an acquisition of existing shares of the target, or by subscription to new shares of the target. Membership of a private company is restricted to 200 members and a private company is required by the Companies Act, 2013 to restrict the transferability of its shares. A restriction on transferability of shares is consequently inherent to a private company, such restrictions being contained in its articles of association (the byelaws of the company), and usually in the form of a pre-emptive right in favor of the other shareholders. With the introduction of Companies Act, 2013, although shares of a public company are freely transferable, share transfer restrictions for even public companies have been granted statutory sanction. The articles

of association may prescribe certain procedures relating to transfer of shares that must be adhered to in order to affect a transfer of shares. Any transfer of shares, whether of a private company or a public company, must comply with the procedure for transfer under its articles of association.

Section 395 of the Companies Act, 1956 envisages a complete takeover or squeeze out without resort to court procedures. Section 395 provides that if a scheme or contract involving the transfer of shares or a class of shares in a company (the 'transferor company') to another company (the 'transferee company') is approved by the holders of at least 9/10ths (in value) of the shares whose transfer is involved, the transferee company may give notice to the dissenting shareholders that it desires to acquire the shares held by them. Once this notice is issued, the transferee company is not only entitled, but also bound, to acquire such shares. In computing 90% (in value) of the shareholders as mentioned above, shares held by the acquirer, nominees of the acquirer and subsidiaries of the acquirer must be excluded.

Under the Companies Act, 2013, if a person or group of persons acquire 90% or more of the shares of a company, then such person(s) have a right to make an offer to buy out the minority shareholders at a price determined by a registered valuer in accordance with prescribed rules. The provisions in the Companies Act, 2013 aim to provide a fair exit to the minority shareholders, as the price offered must be based on a valuation conducted by a registered valuer. However, it is not clear whether the minority shareholders can choose to retain their shareholding. However, the Companies Law Committee vide report dated February, 2016 has recommended that the references to the phrase 'transferor company' in Section 236, may be modified to a 'company whose shares are being transferred' or alternatively, an explanation be provided in the provision clarifying that Section 236 only applies to the acquisition of shares so as to clearly exclude amalgamations and mergers from the ambit of this provision.

Section 100 of the Companies Act, 1956 permitted a company to reduce its share capital in any manner and prescribes the procedure to be followed for the same. The scheme of capital reduction under Section 100 of the Companies Act, 1956 must be approved by, (i) the shareholders of the company vide a special resolution; and (ii) a competent court by an order confirming the capital reduction. When the company applies to the court for its approval, the creditors of the company would be entitled to object to the scheme of capital reduction. The court will approve the reduction only if the debt owed to the objecting creditors is safeguarded/provided for. What is interesting to note is that the framework for reduction of capital under section 100 has been utilized to provide exit to certain shareholders, as opposed to all shareholders on a proportionate basis. The courts have held that reduction of share capital need not necessarily be qua all the shareholders of the company.

Section 42, 62 of Companies Act, 2013 and Rule 13 of the Companies (Share Capital and Debenture) Rules 2014 prescribe the requirements for any new issuance of shares on a preferential basis (i.e. any issuance that is not a rights or bonus issue to existing shareholders) by an unlisted company. Section 186 of Companies Act, 2013 provides for certain limits on inter-corporate loans and investments. An acquirer that is an Indian company might acquire by way of subscription, purchase or otherwise, the security of any other body corporate upto (i) 60% of the acquirer's paid up share capital and free reserves and securities premium, or (ii) 100% of its free reserves and securities premium account, whichever is higher. However, the acquirer is permitted to acquire shares beyond such limits, if it is authorized by its shareholders vide a special resolution passed in a general meeting,

As against a share acquisition, the acquirer may also decide to acquire the business of the target which could typically entail acquisitions of all or specific assets and liabilities of the business for a consideration. Therefore, depending upon the commercial objective and considerations, an acquirer may opt for (i) asset purchase whereby one company purchases all or part of the assets of the other company; or (ii) slump sale whereby one company acquires the 'business undertaking' of the other company as a going concern i.e. acquiring all assets and liabilities of such business. Under Companies Act, 2013, the sale, lease or other disposition of the whole or substantially whole of any undertaking of a company requires the approval of the shareholders through a special resolution. The term "Undertaking" means an undertaking in which the investment of the company exceeds 20% of its net worth as per the audited balance sheet of the preceding financial year, or an undertaking which generates 20% of the total income of the company during the previous financial year. Further this requirement applies if 20% or more of the undertaking referred to above is sought to be sold, leased or disposed off.

### **Securities and Exchange Board of India (SEBI)**

The Securities and Exchange Board of India (the "SEBI") is the nodal authority regulating entities that are listed and to be listed on stock exchanges in India. The Securities and Exchange Board of India (Substantial Acquisition of Shares and Takeovers) Regulations, 2011 (the "Takeover Code") restricts and regulates the acquisition of shares, voting rights and control in listed companies. Acquisition of shares or voting rights of a listed company, entitling the acquirer to exercise 25% or more of the voting rights in the target company or acquisition of control obligates the acquirer to make an offer to the remaining shareholders of the target company. The offer must be to further acquire at least 26% of the voting capital of the company. However, this obligation is subject to the exemptions provided under the Takeover Code. Exemptions from open offer requirement under the Takeover Code *inter alia* include acquisition pursuant to a scheme of arrangement approved by the Court.

Prior to December 1, 2015, the listing agreement entered into by a company for the purpose of listing its shares with a stock exchange prescribed certain conditions for the listed companies which they have to follow in the case of a Court approved scheme of merger/amalgamation/reconstruction. However, on September 2, 2015, the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015 (“Listing Regulations”) were notified and has been effective from December 1, 2015. The Listing Regulations provide for a comprehensive framework governing various types of listed securities under the Listing Regulations, SEBI has altered the conditions for the listed companies which they have to follow in case if a Court approved scheme of merger/ amalgamation/reconstruction has been altered.

If the acquisition of an Indian listed company involves the issue of new equity shares or securities convertible into equity shares (“Specified Securities”) by the target to the acquirer, the provisions of Chapter VII (“Preferential Allotment Regulations”) contained in ICDR Regulations will apply (in addition to company law requirements mentioned above).

We have highlighted below some of the important provisions of the Preferential Allotment Regulations.

The Preferential Allotment Regulations set a floor price for an issuance. The floor price of shares is linked to the average of the weekly high and low closing price of the stock of the company over a 26 week period or a 2 week period preceding the relevant date. Securities issued to the acquirer (who is not a promoter of the target) are locked-in for a period of one year from the date of trading approval. The date of trading approval is the latest date when trading approval is granted by all stock exchanges on which the securities of the company are listed. Further, if the acquirer holds any equity shares of the target prior to such preferential allotment, then such prior holding will be locked in for a period of six months from the date of the trading approval. If securities are allotted on a preferential basis to promoters/ promoter group, they are locked in for three years from the date of trading approval subject to a limit of 20% of the total capital of the company. The locked-in securities may be transferred amongst promoter/ promoter group or any person in control of the company, subject to the transferee being subject to the remaining period of the lock in.

The Preferential Allotment Regulations do not apply in the case of a preferential allotment of shares pursuant to merger / amalgamation approved by the Court under the Merger Provisions discussed above.

On September 2, 2015, the Listing Regulations were notified. The Listing Regulations provide for a comprehensive framework governing various types of listed securities. Regulation of Listing Regulations deals with disclosure of material events by the listed entity whose equity and convertibles securities are listed.

Section 195 of the Companies Act, 2013 prohibits all persons including any director or key managerial personnel of a company from engaging in insider trading. However, communications required in the ordinary course of business or profession or employment or under any law are an exception. This section does not distinguish between a listed or unlisted company or even between a private and a public company whereas SEBI Insider Regulations are applicable only on the listed public companies.

## **COMPETITION LAW**

The Competition Act, 2002 (“Competition Act”) replaced the Monopolies and Restrictive Trade Practices Act, 1969, and takes a new look at competition altogether. The Competition Act primarily covers (i) anti-competitive agreements (Section 3), (ii) abuse of dominance (Section 4), and (iii) combinations (Section 5, 6, 20, 29, 30 and 31).

The Competition Commission of India (Procedure in regard to the Transaction of Business Relating to Combinations) Regulations, 2011 (“Combination Regulations”) govern the manner in which the Competition Commission of India (CCI) will regulate combinations which have caused or are likely to cause an appreciable adverse effect on competition (“AAEC”) in India.

### **I. Anti - Competitive Agreements**

The Competition Act essentially contemplates two kinds of anti-competitive agreements – horizontal agreements i.e. agreements between entities engaged in similar trade of goods or provisions of services, and vertical agreements i.e. agreements between entities in different stages / levels of the chain of production, in respect of production, supply, distribution, storage, sale or price of goods or services. Anti-competitive agreements that cause or are likely to cause an AAEC within India are void under the provisions of the Competition Act. A horizontal agreement that (i) determines purchase / sale prices, or (ii) limits or controls production supply, markets, technical development, investment or provision of services, or (iii) shares the market or source of production or provision of services, by allocation of geographical areas/type of goods or services or number of customers in the market, or (iv) results in bid rigging / collusive bidding, are presumed to have an AAEC.

On the other hand, vertical agreements, such as tie-in arrangements, exclusive supply or distribution agreements, etc., are anti-competitive only if they cause or are likely to cause an appreciable adverse effect on competition in India.

### **II. Abuse of Dominant Position**

An entity is considered to be in a dominant position if it is able to operate independently of competitive forces in India, or is able to affect its competitors or consumers or the relevant

market in India in its favor. The Competition Act prohibits an entity from abusing its dominant position. Abuse of dominance would include imposing unfair or discriminatory conditions or prices in purchase/sale of goods or services and predatory pricing, limiting or restricting production / provision of goods/services, technical or scientific development, indulging in practices resulting in denial of market access etc.

### **III. Regulation of Combinations**

The Combination Regulations are the key regulations through which the CCI regulates combinations such as mergers and acquisitions. Under Section 32 of the Competition Act, the CCI has been conferred with extra-territorial jurisdiction. This means that any acquisition where assets / turnover are in India (and exceed specified limits) would be subject to the scrutiny of the CCI, even if the acquirer and target are located outside India.

## **EXCHANGE CONTROL**

### **I. Foreign Direct Investment**

India's story with respect to exchange control is one of a gradual, deliberate and carefully monitored advance towards full capital account convertibility. Though significant controls have been removed and foreign companies can freely acquire Indian companies across most sectors, these are subject to strict pricing and reporting requirements imposed by the central bank, the Reserve Bank of India (RBI). Investments in, and acquisitions (complete and partial) of Indian companies by foreign entities, are governed by the terms of the *Foreign Exchange Management (Transfer or Issue of Security by a Person Resident outside India) Regulations, 2000* (the "FI Regulations") and the provisions of the Industrial Policy and Procedures issued by the Secretariat for Industrial Assistance (SIA) in the Ministry of Commerce and Industry, Government of India.

### **II. Indirect Foreign Investment**

Foreign investment may be direct or indirect. Generally speaking (and subject to certain exceptions) if an Indian investing company is "owned" or "controlled" by "non-resident entities", then the entire investment by the investing company into the subject downstream Indian investee company would be considered as indirect foreign investment.

### **III. Investment in a holding company**

Foreign investment, whether direct or indirect, into a non-operational company, including a holding company, requires prior approval of the FIPB.

#### **IV. Overseas Direct Investment**

An Indian company that wishes to acquire or invest in a foreign company outside India must comply with the Foreign Exchange Management (Transfer or Issue of any Foreign Security) Regulations, 2004 (the “ODI Regulations”). The ODI Regulations are an extension of the process of liberalization initiated by the Government of India in the 1990s. The regulations contain detailed provisions governing investments made by an Indian company in a foreign company by grant of ‘general permission’ to make a ‘direct investment outside India’ in bonafide business activities, subject to compliance with the regulations.

#### **TAXES AND DUTIES**

##### **I. Income Tax Act, 1961.**

The ITA contemplates and recognizes the following types of mergers and acquisitions activities:

- Amalgamation;
- Demerger or spin-off;
- Slump sale/asset sale; and
- Transfer of shares.

The ITA defines an ‘amalgamation’ as the merger of one or more companies with another company, or the merger of two or more companies to form one company. The ITA also requires that the following conditions must be met by virtue of the merger, for such merger to qualify as an ‘amalgamation’ under the ITA:

- all the property of the amalgamating company(ies) becomes the property of the amalgamated company;
- all the liabilities of the amalgamating company(ies) become the liabilities of the amalgamated company; and
- Shareholders holding not less than 75% of the value of the shares of the amalgamating company become shareholders of the amalgamated company.

##### **II. Service Tax**

In an asset purchase or a slump sale, where the object is to acquire the business of the seller, there may be a covenant in the asset purchase agreement that the seller will procure that its employees accept offers of employment with the acquirer. Part of the consideration

payable to the seller may be contingent on the number of employees who join the acquirer. It is possible that such a covenant could amount to the provision of manpower recruitment services by the seller on which service tax at the rate of 15% (including surcharge and education cess) may be payable as per Finance Bill, 2016.

### **III. Goods and Services Tax (“GST”)**

The Constitution (122<sup>nd</sup> Amendment) Bill, 2014 was introduced in the Parliament to amend the Constitution to provide a framework for the introduction of a goods and services tax. The Bill was approved by the President of India and was passed by both the Houses of Parliament in August, 2016. GST has replaced all the indirect taxes such as excise duty, sales tax, and service tax from 1st July 2017.

GST has simplified the indirect taxation structure and is anticipated to boost M&A transactions by encouraging foreign entities to invest in India. Central GST Act specifies the tax treatment on transfer or sale of business assets. But such sales can take place either item-wise or as a slump sale. Central GST Act and draft rules as on date permit the transfer of unutilised GST (that is, input tax) credit.

### **IV. Stamp Duty**

Stamp duty is a duty payable on certain specified instruments / documents. Broadly speaking, when there is a conveyance or transfer of any movable or immovable property, the instrument or document effecting the transfer is liable to payment of stamp duty.

## **CONCLUSION**

With a plethora of financing options, there is rising aspiration among corporate entities to become global players. Indian companies have often surpassed their foreign counterparts in corporate restructuring both within and beyond the national frontiers. Mergers and acquisitions are powerful indicators of a robust and growing economy. The legal framework for such corporate restructuring must be easy and facilitative and not restrictive and mired in bureaucratic and regulatory hurdles. The biggest obstacle in the way of completing a merger or an amalgamation remains the often long drawn out court procedure required for the sanction of a scheme of arrangement. A quicker judicial system can further enhance ‘Ease of Doing Business in India and attract more players to invest in India and concomitantly strengthen Indian economy.

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# THE ETHICAL IMAGINATION OF GANDHI AS SEEN THROUGH THE CRITICAL EYE OF ORWELL IN “REFLECTIONS ON GANDHI”

*Dr. Anupam Chakrabarti\**

## ABSTRACT

*Concise Oxford English dictionary defines the word ethic ‘as a set of moral principles’. The word ‘ethical’ an adjective derived from ethic is defined as ‘related to moral principles or the branch of knowledge concerned with these’. Ethical imagination is the ability of the mind to form ideas that are morally correct. The argument that will run through this paper centres on Gandhi’s ethics as the moving force behind his aesthetics. Different critics have illumined whole areas of the Gandhian landscape in insightful books and critical essays, but few have devoted themselves exclusively to the moral aspect of Gandhi’s imagination. This paper traces the roots of Gandhian thought to a definite moral point of view. This moral point of view is embedded in his Indianness and his Hindu tradition. He has also imbibed this moral point of view from his education in England. In other words, a consideration of Gandhi’s ethics as an anxiety manifested both in the content and form of his works constitutes the summum bonum of my argument in this paper and to show how Gandhi’s imagination feeds on such an anxiety.*

**Keywords:** bio-ethics, British Empire, Disobedience Movement, Non-Violence.

## INTRODUCTION

Concise Oxford English dictionary defines the word *ethic* ‘as a set of moral principles’. It is derived from Latin *ethice*, from Greek (he<sup>E</sup>) *éthiké* ‘(the science of) morals’, based on *éthos*. The same dictionary defines *ethos* as ‘the characteristic spirit of a culture, era, or community as manifested in its attitudes and aspirations. The word ‘ethical’, an adjective derived from *ethic* is defined as ‘related to moral principles or the branch of knowledge concerned with these’. Imagination has been defined as ‘the faculty or action of forming ideas or mental images and the ability of the mind to be creative or resourceful. So, it would be suffice to say that ethical imagination is the ability of the mind to form ideas that are morally correct.

The argument that will run through this paper centres on Gandhi’s ethics as the moving force behind his aesthetic. Different critics have illumined whole areas of the Gandhian landscape

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in insightful books and critical essays, but few have devoted themselves exclusively to the moral aspect of Gandhi's imagination. This paper endeavoured to trace the roots of Gandhian thought to a definite moral point of view. This moral point of view is embedded in his Indianness and his Hindu tradition. He has also imbibed this moral point of view from his education in England. In other words, a consideration of Gandhi's ethics as an anxiety manifested both in the content and form of his works constitutes the *sumum bonum* of argument and principal concern here is to show how Gandhi's imagination feeds on such an anxiety.

Orwell's essay, "*Reflections on Gandhi*" was published in 1948, the same year in which Gandhi succumbed to the bullets of the assassin, Nathuram Godse. Orwell's comments on the political achievements of the Indian social reformer and nationalist have to be read in the context of Gandhiji's struggle for freedom from the standpoint of despotic rulers. Just as his attitude in "*Shooting an Elephant*" is marked by ambiguousness, similarly, his essay, "*Reflections on Gandhi*" is marked by both ambiguity and ambivalence. In "*Shooting an Elephant*" Orwell realizes his psychological crisis and "*the futility of the white man's dominion in the East... I perceived in this moment that when the white man turns tyrant it is his own freedom that he destroys. He becomes a sort of hollow, posing dummy, the conventionalized figure of a sahib. (The Collected Essays, Journalism and Letters of George Orwell Vol.1, p.269)*. A perceptive critic like Lionel Trilling comments on the complexity of emotions in Orwell's "*Shooting an Elephant*" thus: "*Orwell has spoken with singular honesty of the ambiguousness of his attitude in the imperialist situation. He disliked authority and he used it, and he was often exasperated by the natives*" (*The Opposing Self* p.161). In his documentary *The Road to Wigan Pier*, Orwell admits that in Burma he "*was part of the actual machinery of despotism*" (*The Road to Wigan Pier* p.147).

Orwell equated Gandhi with mysticism, vegetarianism and home-spun cloth. But at the same time, he was totally awe-struck by Gandhiji's sterling ethics, unquestionable honesty and indomitable courage. In the manner reminiscent of Francis Bacon, he opens his essay on Gandhiji with an aphorism. "*Saints should always be judged guilty until they are proved innocent*". This aphoristic statement of Orwell shows his skeptical attitude towards sainthood. It also underscores a subtle mixture of sanctity and shrewd tactics in Gandhiji's protean personality. Orwell does not disown his artistic distaste for Gandhiji because he compromised his principles of sainthood by entering into the arena of politics. Gandhiji was not a politician by profession but he was compelled by the political conditions of the country to enter into the realm of politics which by their very nature are linked with fraud, tyranny and coercion.

Orwell is not blind to certain inhuman tendencies in the character of Gandhiji. Most readers of Gandhiji's bio-ethics know that he was willing to let his wife or child die rather than give them animal food. He was also an advocate of otherworldliness but this did not square with the humanistic ideal on which he laid much significance. His otherworldliness was in no way compatible with his endeavour to escape from the love as well as the pain of living. Orwell does not make snide against the negative aspects of Gandhiji's character. On the contrary, he eulogizes his

impeccable moral courage, his total freedom from suspiciousness, his belief in the sense of equality of all human beings on the planet and his great qualities of head and heart which were highly extolled by both anarchists and pacifists. Then Orwell states that there is not an iota in Gandhi's character which can be labelled bad even by his detractors.

Earlier, Orwell had made an extended review of Gandhiji's autobiography, *The Story of My Experiments with Truth*. If the different chapters of Gandhiji's autobiography entitled, "Childhood", "Child Marriage", "Stealing and Atonement", "My Father's Death and My Double Shame", "The Canker of Untruth", "First Day in Pretoria" and "The Birth of Satyagraha" are clubbed together and read at one sitting, the reader can hear the Mahatma's voice of conscience ringing in his mind's ear loud and bold.

In the essay, "*Reflections on Gandhi*" there is a digressionary twist from Orwell's previous observations on Gandhi. When he was an Officer in the Imperial Police Service he would burst into a guffaw on every occasion in which Gandhiji was mentioned as the most shining example of the policy of non-violence. Orwell had every reason to believe that Gandhiji would have served "*the Japanese if they got there*" in as much as he served the British. When the British admitted privately that Gandhi was "*our man*", it became easier for them to rule India. Behind the policy of their labelling Gandhi "*our man*" was their wicked motive of ruling India easily. The British administrators were always in a state of terror that if Gandhiji was maltreated in jail he might die and his leadership would be replaced by someone who had less faith in "*Soul force*" and more faith in the force of explosives.

In "*Reflections on Gandhi*" Orwell suggests that his impressions of Gandhi and the British administrators might not have been infallible but it was fairly apparent that the British were trying their utmost to make use of him:

*How reliable such calculations are in the long run is doubtful; as Gandhi himself says, 'in the end deceivers deceive only themselves'; but at any rate "the gentleness with which he was nearly always handled was due partly to the feeling that he was useful."*

*(The Collected Essays, Journalism and Letters of George Orwell Vol.2, p. 262)*

Then Orwell had a word of praise for the democratic form of government in England. When the Civil Disobedience Movement and the Quit India Movement were gathering steam in India, England was ruled by the Democrats. Orwell opines that Gandhiji's success was to a large extent attributable to the fact that he did not have to deal with a fascist form of government. That democratic government, in the opinion of Orwell, allowed him to enjoy the wide publicity which was primarily responsible for his success. Had a dictatorial government been at power in England, it would have run trains to crush the early protestors (of the Disobedience Movement) and that tyrannical act on the part of the British government would certainly have put paid to all his plans for the Civil Disobedience Movement. Orwell expresses doubts whether the passive methods of resistance of Gandhiji could be applied in a fascist country like Italy or Germany where persons opposing the fascist regime disappear in the middle of the night and their

whereabouts are not known the following morning. All that Orwell wants to suggest is that Gandhiji's policy of non-violence in politics would have been totally inefficacious had it been used in the presence of Hitler, Mussolini or Stalin. Idolizers of Gandhiji could catch Orwell at the wrong foot when he expressed fears that Gandhiji might be wiped away in the hands of totalitarian rulers, Left or Right. What Orwell failed to foresee was that even if Gandhiji was assassinated, his undying spirit would guide the leaders of the Freedom Movement in different corners of the world.

One may wish to agree if we take into account the views of the revolutionary leader, Kihika in the novel of James Ngugi in *A Grain of Wheat*. In stark opposition to Karanja stood Kihika, the most vociferous of the freedom fighters. Though he drew inspiration from leaders like Waiyaki, yet his firm faith in the culture and resilience of people of other lands spoke volumes for his leadership. He sought inspiration from Mahatma Gandhi who gave India the much cherished freedom from the yoke of British tyranny. He told his youthful friends, Gikonyo, Mumbi, Karanja and others, *Why Gandhi succeeded ? Because he made his people give up their fathers and mothers and serve their one Mother———India. With us Kenya is our mother.*

*( A Grain of Wheat p.83)*

In "*Reflections on Gandhi*", Orwell acknowledges the significance of non-violence: "It seems doubtful whether civilization can stand another major war, and it is at least thinkable that the wayout lies through non-violence. This is the universal significance of Gandhiji's message and it holds well not only for the twenty first century but for eons to come. This makes one think that Orwell's vision of the world is very close to Gandhiji's moral vision. Perhaps the change in Orwell's attitude and his conviction in the force of non-violence had come about after the nuclear holocaust in Hiroshima in 1945.

Towards the end of the essay, Orwell says that in or about 1945, a large body of public opinion had grown up in England. This huge body of public opinion was certainly sympathetic to the idea of India's attaining of independence. But Orwell was not certain to what extent Gandhiji's personal life and character were instrumental in molding the thought processes of the British politicians. Orwell does not make any bones of the fact that the Labour Party under Clement Attlee took a liberal view of the question of India's independence. Orwell does not mince words in stating that a Conservative Government piloted by Winston Churchill would have forestalled the demand of Gandhiji for independence.

But Orwell is unable to take account of the true revolutionary character of the Indian struggle for independence under the political stewardship of Gandhiji. There is a moral and spiritual side to Gandhi's castigation and denunciation of British imperialism. Gandhi knew that imperialists believe in the egoistic pursuit of power and greed. Hence, Gandhiji did not harbour any illusions about the possibility of purging the political field of such hideous tendencies. In his heart of hearts, Gandhiji knew that the pursuit of power is a basic human urge but when moral values in an individual reach a very high level, they themselves create power and increase the

possibility of individual efficacy and collective survival. Gandhiji certainly gave a new direction to the collective consciousness of the Indian masses by dint of his moral power and this collective consciousness of the Indians was capable of toppling the most potent British Empire in the world.

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## STYLISTICS AND LINGUISTICS IN DATTANI'S *TARA*

Gajendra Kumar\*

### ABSTRACT

*The chief characteristic of a drama is that it relies on action. The action of a drama imitates or represents human behaviour. When we come to an analysis of language and speech in a play, the question that inevitably arises is whether action is an area that lies outside the words that we study or whether action is inherent in the words. A play like 'Tara' does not have any drastic physical action. The action is primarily psychological. In other words, the action takes place and consists of the thoughts, emotions and relationships of the characters which keep fluctuating constantly. The words, stances or gestures also keep fluctuating. In this paper, an attempt has been made to show how the language in the play ,Tara, has been used by Mahesh Dattani to put across his themes and concerns.*

**Keywords:** class, Girish Karnad, humour, Kannadiga,R.K. Narayan.

### INTRODUCTION

Mahesh Dattani's play, *Tara*, deserves encomiums from the reader for reasons more than one: for the playwright's deft handling of the plot, for the playwright's handling of several themes, for the technical innovations, and to cap them all, the playwright's remarkable freedom of language. The last of these aspects is related to stylistics which is a study of languages used for a particular purpose, generally, the purpose is literary. So, when we make the bold attempt to examine the linguistic features occurring in a text and then characterize those linguistic features occurring in the same text, we take a plunge into stylistics. From this we infer that Stylistics concerns itself with analyzing the choice of linguistic features and the ways in which the linguistic features are arranged in a text.

We have seen linguistic conventions developing in different social groups. These linguistic conventions serve the definite purpose of separating one language from another. This is not all. Since social groups migrate and their cultural characteristics keep changing, even the language spoken by the different groups registers signs of change. This variation can be either 'synchronic' or 'diachronic'. When it is synchronic, the variation takes place within a single time frame, in terms of region, class or caste. The language variation can be diachronic due to factors of time.

In *Tara*, we find clear evidence of synchronic variation in Dattani's use of tag questions.

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Concise Oxford Dictionary defines ‘tag questions’ as a frequently repeated piece of stock phrase that is attached to the main body. Tag questions are used not only in dialogues but also in prose narratives. Let us suppose that a speaker has to use the tag question (“don’t we?”). Dattani would, in all intents and purposes, make him utter “isn’t it” because Indian English has undergone variation within one time period and this tag question is heard more frequently in Indian English rather than the authentic stock phrase “don’t we”. The amusing thing is that Dattani not only makes points with his use of English but also makes points with the use of Kannada. Dattani introduces Roopa with the sole purpose of making points with his use of Kannada. Roopa gets to know that the Patel family hails from Bangalore in Karnataka; small wonder she breaks into Kannada. Roopa has had her education in modern metropolitan Mumbai. Her cultural education has been truly hotchpotch and as a sequel to this her Kannada is appalling in as much as her English.

Much of the humour in the play *Tara* emanate from jokes and quibbles which presume Dattani’s knowledge of Hindi. But the dramatist creates characters who add spice and zest to the play by their Hindi and Urdu spoken in the north and central parts of India. There is a long lost sibling act in *Tara* in which Tara addresses her brother Chandan ‘*Bhaiya*’. As a rejoinder to this, Chandan states that she has called him a milkman. Chandan does not use the word milkman but flatly uses the word ‘*doodhwala*’. For a man familiar with Hindi, ‘*bhaiya*’ means brother. In Mumbai Hindi, ‘*bhaiya*’ would refer to a milkman or ‘*doodhwala*’. It is interesting to see how an Indian English play like *Tara* can move into other Indian languages. This movement from Indian English to other Indian languages has been done for reasons more than one: partly to emphasize the local colour and partly to show that a word from the Indian language has gained currency in a play in which Indian English is the principal mode of communication.

Dattani’s skill in characterization is seen in his use of Kannada, more particularly in his character portrayal of Roopa. It is amusing but true that Roopa’s English individualizes her. Dattani makes fun, albeit a cruel fun of the girl’s weak command over the English language. Dattani makes fun for her wrong idiomatic expression, “two peas in a pot.” By substituting pot for pod in her usage, she evokes whole-hearted laughter. Roopa’s last utterance before Chandan is that she and Chandan are not “combatible”. The ‘b’ in the middle of the word ‘combatible’ points to her inability to distinguish between ‘b’ and ‘p’. This is a failing common to most South Indians, but a native speaker of English would regard it as a pure case of malapropism. There are other instances of malapropism in the play. When Roopa is all praises for Bharati’s adeptness at making coffee, Chandan approves of all that she says. Roopa expresses surprise and states ‘Really? But it has that typical Southie flavour. I think it’s the you know Concoction.’ Tara corrects her saying, ‘She means decoction’ (*Tara* 26-27).

Style must be appropriate to the speech situation in which the interaction takes place. In order to create a speech situation there must be various factors at work. At the outset, there are participants in an interaction. The relationship between the participants is of paramount importance.

When one is considered superior and the other inferior in terms of age, sex or social status, the language used by both bespeak their style. On account of her faulty English, Roopa is inferior to Tara and Chandan on the cultural plane. Apart from her faulty English, Roopa's language is Kannadiga English. Small wonder, she is reduced to a funny creature whenever she opens her mouth. Dattani is certainly alive to the class attitude in operation in the society and this explains the reason why he introduces a modicum of Kannada to demonstrate that Roopa is conspicuous by her deficiency both on the linguistic plane and intellectual plane.

The play *Tara* can fittingly be described as a play of the middle class for a couple of reasons. First, Dattani steers clear of royal English or upper class English. Secondly, the play was meant to be performed in urban closed auditoriums. Dattani had to use a language that could be comprehended in closed auditoriums. Both these factors accounted for the use of middle class English in the play. In Dattani's *Tara*, there is an avoidance of stress and intonations which the reader comes across in British plays. Therefore, in Dattani's plays meticulous care is not taken to follow grammatical rules and syntactical structures. Dattani uses Indian words for the niceties of the occasion in the drama. But he does not use Hinglish as Rushdie does by making a mixture of Hindi and English. Nor does he use the de-doxified English of Rushdie in which the cultural baggage of a language is reversed. Dattani admits the free use of allusions and metaphors in the play. Much of the humour in the play is derived from linguistic deviations and these deviations are significant pointers to class aspirations and lower status of the characters who speak this deviant English. This brings Dattani's characters close to the middle class deviant characters of the fiction of R.K. Narayan as in *Vendor of Sweets*, the *Financial Expert* and in *The Guide*.

As an instance of Raju's deviancy in *The Guide*, we see how he lures the tourist to go to Malgudi Photo Bureau to have his roll-film developed. The tourist asks Raju, 'Will he develop and show me a print while I wait?' To this question Raju replies, 'Of course, before you count twenty. He is a wizard.' (*The Guide* 60)

A pertinent question regarding the language of *Tara* is whether the English spoken in *Tara* limiting in any way? We must do well to remember that this is a family formed by an interstate marriage; Bharati is Kannadiga whereas Patel is a Gujarati. The children have been educated in public schools where the medium of instruction is English. They have also moved to different places. The play speaks of their former stay in Mumbai and their latter stay in London. It is quite natural on the part of the children to speak English fluently. Some snap scenes from the play are as follow:

*Chandan:* How can you know at twelve? How can you know at sixteen?

*Tara:* We women mature fast. Speaking of maturity, you better not skip any physiotherapy sessions. Daddy wants you to be big and sturdy. He will find out from the hospital and... This music is so... I don't know.

The comfortable manner in which Dattani's characters speak English points at the new global world of the middle class. There can be no denying that the lingua franca of this world is English.

Questions have been raised by critics about the limiting role of English in *Tara*. It would be in the fitness of things to recall the conversation between the playwright Girish Karnad and Dattani regarding the performance of Karnad's play, *The Fire and the Rain*. It is worthwhile to recall that Karnad translated this play into English. Dattani remarked, "... what was really refreshing ... was that you gave so much to a group to work with, the language and the sheer simplicity of words ... at no point did I feel that it was slipping into rhetoric or self-indulgent poetry." (*Indian Review of Books*, Vol.8 (6)). Karnad's reply was that English is sensitive to pomposity. That provides the explanation as to why Dattani avoids 'high' emotion "rhetoric or self-indulgent poetry as all these smack of pomposity. In fact, the limiting of English in the dramas of Dattani is a blessing in disguise as it leaves no room for pomposity.

Dattani individualizes characters by the English they speak. Roopa and Dr. Thakkar are individualized by their spoken English. Roopa speaks Indian (Kannadiga) English which is strongly accented whereas Dr. Thakkar employs a formal style of speaking English. As his style is highly formal there is little possibility for variation. As Dr. Thakkar speaks his lines, he is particularly wary of every word that he speaks:

*"There were many points to be reconfirmed and further observations were necessary before any decision on surgery could be taken. The twins were flown in from Bangalore and were moved immediately to the intensive care unit for observation and tasks. It was two weeks of exhausted work. The results were encouraging. The twins did not share any vital organ. There were two hearts clearly indicated by two electrocardiograms. There were two livers, although joined. Each twin would have one kidney all this meant there was a very strong possibility of both twins surviving. What we needed to know more about was the pelvic region and the extent of conjointment there".*

(Tara 22-23)

Chandan's skills in writing, honed by his occupation as a writer show him toying with the English language. Tara's English is akin to the English which is spoken by the educated Indians, notwithstanding her use of slangs. Patel and Bharati speak in a consciously-chosen language, though Bharati's language is particularly conspicuous in its use of Indian words.

Dattani sketches in a social and geographical locale and here his language is made to serve a special function. The cosmopolitan Indian cities with their multicultural ambience and especially Mumbai are worked into the play with the names of people. In the neighbourhood, we come

across Narayan Saab, in the hospital there is Dr. Kapoor then there is a Kannadiga, Roopa. The Patels name their children Chandan and Tara but the symbolism underlying their names is set to naught by the irony in their lives. The name Chandan does not smack of sandalwood but his wooden leg which is not a desirable object in the play. Similarly the name Tara conjures visions of a twinkling star. In the play she is not an adorable twinkling star but an object of the derisive laughter of Prema, Nalini and Roopa.

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## BOOK REVIEW “TO LITTLE READERS”

**AUTHOR: Bing Xin (冰心)**

Jiangsu Science and Technology Publisher; 1st edition (January 1, 2016), CHINA  
(Originally Published in 1926)

***Review By - Vivek Mani Tripathi\****

### 1. Introduction of Writer and the Book

Xie Wanying (October 5<sup>th</sup>, 1900-February 28<sup>th</sup>, 1999) was a female author and poet in modern China. She was better known by her pen name—Bing Xin which was taken from a famous poem. Its meaning is chasteness of soul.

Bing Xin was born in Changle, Fujian province of China. She moved to Beijing with her father in 1913. After the outbreak of the May 4<sup>th</sup> movement, she plunged into the powerful current of times. She published her first prose and novel in “*Morning Post*” in August 1919. After that, she started writing short poems and novels on social problems. *A Myriad of Stars* and *Spring Water* written by her powered the trend of short poem in the early period of new poem. Many of her works were translated into foreign languages and enjoyed a high reputation in overseas also.

Bing Xin was considered as one of the founders of Chinese children literature. She wrote mostly for young people. *To Little Readers* is a representative work of her children literature. Arguably, the book is one of the earliest children literatures in modern China. *To Little Readers* is actually a collection of 29 letters that Bing Xin wrote to her little brothers from 1923 to 1926. All the letters were published in *Morning Post Supplement* in Beijing.

In these letters, she dwelt on maternal love, childlike innocence and purity, spreading the empty belief that “the world is full of love”. Compared with her early novels and poetry, they brought her greater recognition for their achievement. Needless to say, as a world-renowned masterpiece, *To Little Readers* has attracted and is still charming numerous readers from all corners of the world and people from all walks of life.

### 2. Context of Writing

Most of these letters were written abroad, as she thought of her family, hometown and country. She wrote down what she had seen and heard in journey and foreign land.

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Later, when author recalled how she started writing letters to young readers, she said that when she went abroad to study in 1923 she promised her little brothers that she would often communicate with them by writing letters. Editor of Child World request that she should publish those letters. She agreed. These were put together and later on published as a book. That's why we could read the book now.

### 3. Main Threads of the Book

As a whole, the book mainly presents foreign scenery and anecdotes. However, the main focus of author's letters is not the happiness or excitement of going abroad but the yearning for her mother and hometown. Maternal love, nature and childlike innocence feature prominently in these works. In the book, author centered on three main clues. Her love for mother, nature, children and country made the words easily flow from her pen, full of tenderness. All these integrate harmoniously, forming a consistent purport of the book.

*To Little Readers* was a reflection of author's Philosophy of Love which runs through the whole book. Her Philosophy of Love refers to universal love, especially maternal love, love of children and nature.

Many letters spoke of maternal love—as long as I found her, I throw myself into her arms. I would trust her in everything. Even though everything is destroyed, her love for me wouldn't change. She not only loves me but those who love me. That's how world is built (10<sup>th</sup> letter). Ocean is my friend while lake is my mother. I was close to ocean in my childhood while familiar with lake now (7<sup>th</sup> letter). I would like to spend all my time in earth praising the sacred maternal love (12<sup>nd</sup> letter). In the above description from the book, author's love for her mother was effusive. Thoughts are expressed by means of words. When she praised maternal love, she always used the most elegant words and attached deepest emotion to the words as if maternal love is the most admirable feeling in the world. Under her pen, maternal love is like a brook, a babbling brook, moistening kids' heart. Nowadays, most of us is surrounded by maternal love. However, we often turn a blind eye to it. After reading the book, the affection of author to her mother deeply touched me, reminding one how happy one is with one's mother always caring about children.

Praise of the great nature is another important aspect of the book. Many poets and artists have drawn their inspiration from nature. Bing Xin was no exception. Because of works of Bing Xin and many other writers, the component of nature in modern Chinese literature was reinforced. She liked to be out in nature. We can easily find out in the book that she had a deep feeling for beauty in nature. Author depicted the colorful scenery and wonders in nature. Take the 7<sup>th</sup> letter for example; *I bathed in the sunshine, sitting next to a tree root. I looked up to dazzling sea of silver, lost in thought that how great is the*

*world, how tiny is human; when I left Lake Waban, I was detached as if I got something back with wind in my hair.* Nature is just like a loving mother between the lines, always willing to accept her children. As is known to all, vivid depiction is essential to all kinds of articles since it can help the readers visualize the scenes, thus making the story more attractive. The scene depicted by the author is exquisite and beautiful. Closing eyes, a reader can even “see” glorious landscape just like watching a film. Today, the pace of life is increasing with technological advancements. People are too busy with work to notice environment around them. Besides, unfortunately, there is less and less unsullied landscape in our planet due to widespread industrial pollution. It’s a big loss for human being.

Childlike innocence is the dominant aesthetic characteristics of Bing Xin’s letters. Bing Xin’s “Beauty of Naivety” showed the unique artistic world of child’s simplicity that is extremely simple and pure. Bing Xin cared about children. She communicated with them in the letters and shared all the sadness, happiness, and regrets without reservation, which might be ignored by adults. But in the eyes of children, these were huge matters that could spark debates. She also encouraged children to write and stick to their own opinion instead of influencing by adults. However, as we grow up, we gradually lose childlike innocence. We find that we are adults with realistic expectations and tons of responsibility. The letters to young readers remind reader of keeping childlike innocence.

Maternal love, nature and childlike innocence run through her book harmoniously, forming the theme and fresh style of her work. There is a sort of motherly compassion, a sort of child-like purity, which forms the moral basis, the desire for peace in author’s writing. She wrote these letters with Philosophy of Love as her writing idea. The Love in author’s Philosophy of Love is not class comradeship or loyalty, but feminine or maternal love. During the May 4<sup>th</sup> Movement, it was based on humanitarianism with the sense of anti-feudalism. Actually, there is dissatisfaction and indignation hidden behind it and longing and yearning for a good society in the future. Author’s Philosophy of Love, proposed love and care among people, opposed estrangement and indifference in the world. We can also call it a kind to resistance to political system of feudalism.

#### **4. Features of the Book**

Passion is her leitmotif of the creation for different kinds of poetic expression. She used her pen as a carrier of expressing emotions. Author’s feelings were often not consciously revealed in her letters. Her main means of expression was lyricism. Bing Xin expressed her feelings through the description of scenery. Her work is mostly the integration of emotion and scene. She was good at describing natural scenery and expressing emotion and combining both of them ingeniously. When depicting seascape, she described the constantly-changing colors of calm sea in detail—sometimes it was extremely blue, sometimes highly green. In

the golden evening light, water appeared to take on various hues, reddish or viridian. The sea was glassy alloy calm. By depicting the immense expanse of sea, author expressed the sadness of leaving her hometown. There is a natural transition from natural beauty to human love. The author didn't depict scenery for itself but for emotional expression to her hometown and mother. The beauty of the nature and sincere feelings enhanced each other's beauty between the lines.

A kind of unique "Bing Xin Style"-pure and simple-was created. Author took full advantage of the easy flow of vernacular as well as disciplined simplicity of traditional language. She advocated endowing Chinese with a tint of the Western language. Modern Chinese language won the upper hand in the conflict with the traditional ancient Chinese Language. The sentences under her pen were elastic and gentle with dancing rhythm. Her language in prose has its simplicity, clearness and amiability, which is an important way to win the attention of the readers.

## 5. My Favorite Letter of the Book

As mentioned earlier, the 7<sup>th</sup> newsletter is a classic piece in the book. It is also my favourite letter in this book. The letter was divided into 2 parts. The first part of it was mainly about sea scene. There were ethereal beauty and bright world where moon, star and light added radiance to each other. The latter part was mainly about Lake Waban. Author described the reflection of leaves in the lake, tranquil lake surface and lake hues accompanied by the setting sun, which is in sharp contrast to seascape in preceding part of the text and is expressive of her love of nature. Scenery description not only served as a setting but also became a vital part of her prose. Her scenery depiction was full of genuine feelings of leaving hometown and family and her concern for relatives. In the latter part of the prose, author integrated maternal love and the love of nature. The whole letter was a friendly talk between kids and a big sister full of childlike innocence, which exudes the appreciation for child's simplicity.

## 6. Evaluation and Influence of the Book

With distinct characteristics, *To Little Readers* was well-received. It influenced the many Chinese young readers generation by generation. Chinese writer Yu Dafu wrote in *An Expanded Family of Chinese New Literature* that simple beauty of Bing Xin's prose, elegant words she used, pure thoughts conveyed in her work are unique in China. Bing Xin has achieved prominent accomplishment in prose. The emotional expression in her prose is delicate and clear. Chinese critic A Ying added, there were a number of young readers then that were not affected by Lu Xun. However, the amount of young readers that were not influenced was quite rare. Writer Ba Jin also commented on the book—we were all lonely

kids in the past. We have got respectable warmth and comfort from her book. We've known how to love stars, love sea. But the most important thing is that we reviewed our forever-lost maternal love from her lovely and beautiful sentences.

Literary creation comprises of unquenchable inspiration. The book was written for the author's beloved mother. Her praise for maternal love has transformed tens of thousands of children.

In the rapidly developing times when most of people are upset and restless and every people say they need to vent, such a book soothes souls lost in the rapid development and darkness.

*To Little Readers* has already set up a standard for children literature. Its name, beyond all doubt, has become a name firmly rooted in children's memories.

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