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By Md. Didar Hossain

IUBAT-International University of Business Agriculture and Technology, Bangladesh

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THE IMPACT OF ENGLISH LANGUAGE ON THE LIFESTYLE AND BEHAVIOR OF TERTIARY LEVEL STUDENTS IN BANGLADESH CASE STUDY JAHANGIRNAGAR UNIVERSITY

Strictly as per the compliance and regulations of:

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I. Introduction

There is no doubt in the fact that English has gained the status of the global language. It is spoken and taught in many countries as a native and a second or a foreign language. It is taught in schools, colleges, and universities in almost every country in the world. English is spoken by over 350 million people as their native language.

Besides, millions of people use it as a second language, and about 250 million people around the globe use it fluently as a foreign language. In addition to that about 1000 million people around the globe have more or less knowledge of English. It is learnt almost everywhere of the world because knowledge of English is considered as an international passport in terms of communication with the entire world. Sometimes, it is considered in Bangladesh as a stair of prosperity, a tool of acquiring knowledge, and a sign of sophistication.

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There is no university student in Bangladesh who is not acquainted with the term 'English Language' and its use. It is so common a term that almost all the university students in Bangladesh consciously and sub-consciously speak and/or have to speak in it. English language is the second language for them. Moreover, some think that it can bring them good jobs. If that is the case, it is very necessary to put light on the use of English language and its impact on them.

The period following the 1950 saw a tremendous increase in the need for communication among people of the world in various spheres of international contact like politics, academics, eco-nomics, technology and culture. English is taught as a foreign language in Bangladesh. (Open University Publication, English, Unit- 1, 19) If the chronological history of English language in Bangladesh is discussed, a kind of political as well as social background will be found which directly influence the learning of English at every level of education.

II. Dissertation Statement

This paper analyzes the various ways in which the students of Jahangirnagar University use English for various purposes. It also shows that the whole lifestyle of the student is affected by the English language and changing gradually as a result of using English language. There is no doubt that English language has made communication easier but underneath there is a political, ideological, cultural, and economic imposition. It shows that with the acclamation of the theme of so-called globalization, the developed countries (America and England for instance) have made English a lingua franca and through the imposition of English language in the university education, they are trying to inject their culture among Bangladeshi people and thus establish their cultural superiority.

III. Objective(s) of the Study

It is the increasing importance of English as a Foreign Language (FL) or Second Language (SL) and a global *lingua franca* that has thrown its impact on other cultures a research subject all over the world. The

unparalleled international role of English language has, or should have, some repercussion on the way English is taught. The main objective of the study is to fulfill the need of a course. Besides, the study has two types of objectives:

a) General Objectives

1. To sketch out a picture of English language teaching and learning at tertiary level in the universities in Bangladesh with a focus on the problems that the students face in the process of learning the four skills of English language.
2. To put forward some suggestions and recommendations to overcome the problems or hindrances or at least lessen the severity of these problems.

b) Specific Objectives

1. To identify the problems encountered by the students in the process of learning English;
2. To evaluate the performance of the tertiary level students in English language skills;
3. To investigate whether the teachers arrange the practice of listening, speaking, reading, and writing in the class;
4. To investigate if English language has any impact on the dressing style and eating habit of the Bangladeshi students;
5. To find out if English language has any influence over Bangladeshi culture i. e. whether it is harming Bangladeshi culture or not;
6. To find out the teachers' motivation on the students, teachers' teaching method, teaching competence; and
7. To suggest recommendations for the concerned groups to use English language with care and awareness.

IV. Significance of the Study

English language has been the world language today. This study focused on the perception of the students about their use of English language and the impact of it. It has assumed greater significance in the globalized context. It will make the students conscious about the optimal use of English language. They will also know the origin and development of English language in the Indian Sub- continent. It will also help the people who would do research on the same area. Since the research on the impact of English language is a global phenomenon, a huge number of studies have been conducted around the world. A good number of studies on the same area of knowledge have been carried out during the recent past under different public universities in Bangladesh. But surprisingly, no study has been conducted on this topic in Jahangirnagar University. So, there are sufficient scopes of study in this field. Therefore, the present study is very significant and a crucial demand of time.

V. Limitations of the Study

The dissertation paper could have been done with more care if there were more time. Number of respondents could be more. Some students took the questionnaires but did not return them although they were contacted many times. Taking interviews of the teachers and students were the most difficult part because these were face to face interview. Although teachers were very friendly in giving interview, some students took it to be very trifling matter. They looked angry, disgusted, and exhausted. Some students could not understand the term 'Bad English'. It was very tough finding out the correct and enough information about the origin and development of English language in the Indian Subcontinent.

a) Origin and Development of English Language and English Education in the Indian Subcontinent and in Bangladesh

English is a member of the Indo-European family of languages. This broad family includes most of the European languages spoken today. The Indo-European family includes several major branches:

- Latin and the modern Romance languages;

- The Germanic languages;

- The Indo-Iranian languages, including Hindi and Sanskrit;

- The Slavic languages;

- The Baltic languages of Latvian and Lithuanian (but not Estonian);

- The Celtic languages; and

- Greek. (Source: http//:Google.Com)

The influence of the original Indo-European language, designated proto-Indo-European, can be seen today, even though no written record of it exists. The word for *father*, for example, is *vater* in German, *pater* in Latin, and *pitr* in Sanskrit. These words are all cognates, similar words in different languages that share the same root. Of these branches of the Indo-European family, two are, for the purpose/purposes of studying the development of English, of paramount importance, the Germanic and the Romance (called that because the Romance languages derive from Latin, the language of ancient Rome, not because of any bodice-ripping literary genre). English is in the Germanic group of languages. This group began as a common language in the Elbe river region about 3,000 years ago.

The background of English language in Bangladesh can be traced back to Lord Macaulay's Minute on Education of 1835. In the 'Minute', Thomas Macaulay articulated the goals of British colonial imperialism most succinctly: "We must at present do our best to form a class who may be interpreters between

us and the millions whom we govern, a class of persons Indian in blood and color, but English in taste, in opinions, words and intellect." (Ashcroft et al, 1995: 430) The main objective of Macaulay was to create Englishmen from among the Indians. From his speech, the objectives of teaching English are thus very clearly defined.

As the architect of Colonial Britain's Educational Policy in India, Thomas Macaulay was to set the tone for what educated Indians were going to learn about themselves, their civilization, and their view of Britain and the world around them. An arch - racist, Thomas Macaulay had nothing but scornful disdain for Indian history and civilization. In his infamous minute of 1835, he wrote that he had "never found one among them (speaking of Orientalists, and opposing political faction) who could deny that a single shelf of a good European library was worth the whole native literature of India and Arabia." (Ashcroft et al, 1995:429) He also added that it was, no exaggeration to say, that all the historical information which has been collected from all the books written in Sanskrit language is less valuable than what may be found in the paltriest abridgments used at the preparatory schools in England.

In the post - independence period in Bangladesh, English language had to go through a number of struggles because of serious negligence for the first few years. In 1974, some recommendations were made with regard to language teachings by an education commission. After that, an English language teaching taskforce was formed by the ministry of education whose purpose was to evaluate the state of English language teaching in Bangladesh. It also made a number of recommendations for the development of learning English. In 1990, the government took a decision to introduce English as a compulsory subject from class1. It was implemented in 1992 with a new syllabus and new books (especially for class 1-10). After 1993, English education has been reintroduced in the B. A., B. S. S., B. Com., and B. Sc. courses as a compulsory subject of 100 marks. On the basis of the world context, the Government of Bangladesh passed an act in 1992 for the reintroduction of English at the tertiary level. It was done to enhance the employment potential of the graduates and to check the deadline of academic standard. Now in tertiary level the all institutions in Bangladesh, in a way or the other, English language are being taught.

VI. Literature Review

This chapter entitled as 'Literature Review' deals with research activities conducted by the previous researchers. The impact/s of English language on the university students in Bangladesh are expressed through various forms: cultural, social, and linguistic. It leads to various types of fusions. These fusions can be termed as acculturation. In this case, it is the acculturation of English language by The Bangladeshi University students. It should be noted here that acculturation is the process of adapting to or adopt a different culture. Linton (1963) described the general process of acculturation as involving modification in attitudes, knowledge, and behavior. "These modify-cations were seen to require not only the addition of new elements to an individual's cultural background, but also the elimination of certain previous elements and the reorganization of others. Thus the overall process of acculturation demands both social and psychological adaptation." (McLaughlin, 1987) part of this process involves learning the appropriate linguistic habits to function within the target- language group (Stauble 1980).

Ngugi Wa Thiong'o, in his book "Decolonising the Mind" (1981a), displaying anger toward the isolationist feelings colonial education causes, asserted that the process, "… annihilates a peoples belief in their names, in their languages, in their environment, in their heritage of struggle, in their unity, in their capacities and ultimately in themselves. It makes them see their pats as one wasteland of non- achievement and it makes them want to distance themselves from that wasteland. It makes them want to identify with that which is furthest removed from themselves" (Ashcroft et al.1995). Thomas Macaulay understood this process of acculturation many years ago although his motif was purely Eurocentrically colonial. In 1935, in his "Speeches of Lord Macaulay with His Minute on Indian Education", Macaulay opined, "It is impossible for us, with our limited means, to attempt to educate the body of the people. We must at present do our best to form a class who may be interpreters between us and the millions whom we govern; a class of persons, Indian in blood and color, but English in taste, in opinions, in morals, and in intellect." (Ashcroft et al, 1995:430)

Language is directly related to culture. A culture can never be thought of without culture. Wardhaugh (1986) comments that there should be some kind of relationship between the sounds, words, and syntax of a language and the ways in which speakers of that language experience the world and behave in it seems so obvious as to be truism. He also says that one long-standing claim concerning the relationship between language and culture is that the structure of a language determines the way in that the speakers of that language view the world. The impact of the English media and language can result in various forms as code mixing, code switching, code borrowing. The influence of English language is paramount through the imposition of English literature. Gauri Vishwanathan in his essay 'The Beginnings of English Literary Study in British India', "British parliamentary documents have

provided compelling evidence for the central thesis of the investigation: that humanistic functions traditionally associated with the study of literature - for example, the shaping of character or the development of the aesthetic sense or the disciplines of ethical thinking- are also essential to the process of sociopolitical control. . . English Literature made its inroads in India, albeit gradually and imperceptibly, with a crucial event in Indian educational history: the passing of the Charter Act of 1813." (Ashcroft et al. 1995: 431) The assimilation of language with culture is evident in Hudson's writing. He says, "There are three points at which language makes contact with language, and more specifically with the kind of knowledge that we call 'culture'. As a distinguished anthropologist said that a society's language is an aspect of its culture. . . The relation of language to culture is that part of the whole' (Good enough)." (Hudson, 1980) There was an article in "Sahitya Shamoyiki" of the newspaper "Prothom Alo" written by Mahbub Alam. He writes here that the Bengalees were motivated to learn English for high status in the society and government jobs. He adds that although there were not enough English books and teachers, they learnt a kind of English that can help them only to run normal conversations. For this early exposure of English language to the Bengalese before they could learn it properly made its base weak. Its results were twofold. The Bengalese who learnt English with a great care spending a long time, they were found to overuse English mixing with Bangla. According to Widdowson (1974), English language teaching overseas is taking on a new character as a result of the need for many advanced students to use the language as a tool in the study of scientific and technical subjects.

Hasan (2005) conducts a linguistic study on the "English Language Curriculum at the Secondary Level in Bangladesh- a Communicative Approach to Curriculum Development" which reveals that students are aware of the importance of learning English language. He finds that 59% students have disinterest in speaking English, because they like their mother tongue and there is an animosity towards English, as it is heard, as they perceive, to learn. He also discovers that the syllabus and the curriculum of education are examination oriented which prevent them from acquiring the language competence. He discovers 82% rural and urban madrasha students complain that English is not sufficiently used in the class. On an average 68% teachers admit that they do not arrange the practice of four skills of English language in the class. Since the study, use of English in the class, practice of language skill, needs of English, textbook materials etc. it is directly relevant to the present study.

Kavaliauskiene (2003) carries out a research among the second year university students in Lithuania which reveals that 65% students admit that the teachers have tendency to avoid speaking, and 57% students comment that listening practice are not done in the class. Her study also reveals that 68% students are weak in listening, and 73% students are weak in speaking while 72% students' reading status is satisfactory. The study of Kavaliauskiene investigates the practice and performance of the students in English, therefore, this study directly relates to the present study.

Romanian (2002) evaluates the linguistic skills of the graduate students in English in Punjab. He evaluates all the four linguistic skills: listening, speaking, reading, and writing. However, he has dealt with the details of the writing skill of the graduate students. He identifies in his study the phonological, grammatical, and orthographical errors in productive skills and in the comprehension skills he identifies the reading ability of words and sentence. His study finds that 68% graduate learners interested in correction of error in written production. Moreover, he recommends that the group discussion, language games should be encouraged in the class hours. He believes that introduction of the audio- visual instrument for language teaching would be good and wise at collegiate level.

In 1990, the government of Bangladesh took a decision to introduce English as a compulsory subject from class 1. It was implemented in 1992 with the new syllabus and new books (especially for classes 1-10). After 1993, English education has been reintroduced in the B. A., B. S. S., B. Com., and B. Sc. Courses as a compulsory subject of 100 marks. On the basis of the world context, the government of Bangladesh in 1992 passed an act for the reintroduction of English at the tertiary level. It did this to enhance the employment potential of graduates and to check the decline of academic standard. The act came into being and effect two years later with a syllabus based on grammar.

In 1995, a study conducted by the British Council on behalf of the University Grants Commission (UGC) identified two major problems in the development of English language teaching, both of which were concerned with teachers. Recently, the English Language Teaching Improvement Project (ELTIP) was launched by the Government of Bangladesh in collaboration with the Department for International Development (DFID). This is a network of resource centers whose purpose is to provide in service training to ELT teachers as well as to prepare materials appropriate for the learners.

The present research is different from the other research in the sense that it is the first study on impact of English language on the students of Jahangirnagar University. It attempts to find out the present conditions of the English language in JU and gives suggestion about what to do in future.

VII. Research Methodology

Research is a systematic process. The essential step of a research work is to design the method, which

leads the researchers to conduct the dissertation in a proper way. For the present study, the dissertation paper has been designed in a logical and scientific manner. The present study is on the impact of English language on the tertiary level students in Bangladesh: changes in their lifestyle and behavior as a result of using English language. Different techniques have been taken into account to conduct the research activity to perform the study.

a) The Research Design

To respond to the findings of the current study, both qualitative and quantitative research methods were used, including a questionnaire for the students and interviews with the teachers and students. To determine the population of the study, the present study covers at least 200 students from various departments where there is an English language course. The teachers of the department of English in Jahangirnagar University who are teaching English in different departments have been considered as the sources of data for the study.

b) Sampling

As it was very difficult to reach every student of all the departments, the stratified purposive sampling policy has been adopted for the study. Students from the following departments were taken into account:
1. Information Technology (IT)
2. Philosophy
3. Bangla
4. Drama and Dramatics
5. Computer Science and Engineering (CSE)
6. Public Administration
7. Chemistry
8. Archaeology
9. Urban and Regional Planning (URP)
10. Bachelor of Business Administration (BBA)
11. Mathematics
12. History
13. Government and Politics
14. Statistics
15. Environmental Science.

At least 10 students from each of the aforementioned departments were taken for the preparation of the questionnaire. Five teachers from the Department of English were interviewed for the study. Besides, 10 students from various departments were also interviewed.

c) The Research Tools
Data for the study were collected through-
   1. Questionnaire for the students
   2. Interview of some teachers
   3. Interview of some students

d) Data Collection Procedure

Questionnaires were distributed to the students. They were requested to fill up the form with care by providing the correct information. The interviews of the students and the teachers were done face to face. For the vast source of books, library work also has been done. Internet was used to find out the technical ad historical information. It also helped the present study by providing the technical steps of accomplishing the work.

e) Data Analysis

Research is a scholarly investigation and experimentation aiming at discovering new facts and their correct interpretation. Data have been analyzed most manually except in case of finding out the summations and percentages. First data were patterned in tabular form according to the fulfillment of research objectives. During this time, the variables underlying the investigation were kept in mind. Microsoft Office Word 2007, Power Point 2007 and Office Excel 2007 have been used to process data.

f) Consideration of the Administration Condition During the Study

The questionnaire for the students was given to the students and administered when the students were seen to be free. It was done by some agent- students. The researcher chose at least one student from the departments which are included in the questionnaire. The agents were the familiar students to the researcher. The responses of the teachers were taken mostly while they were in their leisure period in their room. For the interviews, there was no exact time limit but the expected time limit was twenty minutes. The appointments for the interviews were fixed earlier. Written records of the interviews were taken. The recorded interviews were then transformed into scripts.

VIII. Findings of the Study

This chapter analyses the data which were collected through student questionnaire and interviews of the teachers and the students. In fact, the interview sessions were arranged in addition to the questionnaire survey to obtain a comprehensive idea of the respondents' position regarding the impact of English language on the tertiary level students in Bangladesh. It is true that the questions of the interview sessions did not necessarily echoed the exact questions set in the questionnaires. Rather, they were meant to elicit the background or rationale behind the respondents' individual positions regarding the issue set by the researcher.

a) Findings and Discussions of the Instruments for the Students' Questionnaire Survey

   i. First Part of the Questionnaire

The first part of the questionnaire deals with the personal details of the respondents to keep documentation for further information which will help to elicit background or rationale behind the respondents'

individual positions on the selected issues. However, students from different departments have acted in response to this questionnaire.

ii. *Findings of the Second Part of the Questionnaire for the Students*

Item - 1:

The first item on the questionnaire was "Do you speak English with your friends and teachers in the Campus?" Table- 1 shows the percentage of the responses.

Table 1 : Response to whether the students of Jahangirnagar University speak English with their friends and teachers in the university campus. (N= 2oo)

Responses	Frequency	Percentage (%)
Never	6	3%
Sometimes	190	95%
Always	4	2%

Table - 1 shows that only 3% students (N=6) never speak, 95% (N= 190) sometimes speak, and only 2% opine that they speak in English with their friends and teachers in the campus. So, it is seen that almost all the students in some ways speak English with their friends and teachers in the campus or at least they try to speak. The table proves that speaking English is a common phenomenon for the students.

Item - 2:

The second item attempts to reveal whether the students practice speaking English at home. Table- 2 shows the percentage of the responses.

Table 2 : Response to whether the students try to speak English at home. (N=200)

Responses	Frequency	Percentage (%)
Yes	69	34.5%
No	131	65.5%

Table - 2 shows that 34.5% percent of respondents replied in the affirmative while the rest 65.5% percent replied in the negative. So, more students think that they do not practice English at home. It may be the cause that they think that speaking English at home would make them uncomfortable or it may be that they like to speak in Bangla.

Item - 3:

Item-3 seeks to reveal with whom the students speak the most. Table-3 shows the percentage of the responses.

Table 3 : Responses to with whom the students speak the most. (N=200)

Score	Frequencies	Percentage (%)
1	22	11
2	87	43.5
3	63	31.5
4	28	14
Total	200	100

(Score: 1= Parents, 2= Friends, 3= Teachers, 4= relatives)

Table-3 shows that 43.5 percent respondents speak English with their friends, 11 percent students speak English with their parents, and 31.5 percent with their teachers and the rest 14 percent speak English with their relatives.

Item- 4:

It asks the respondents if there is any course in their academic syllabus that can help them learn English shows the responses and their percentage.

Table 4 : Responses to whether there is any course in the syllabus that helps to learn English. (N=200)

Responses	Frequency	Percentage (%)
Yes	163	81.5
No	37	18.5

The table shows that 81.5 percent students have some courses in their syllabus that help them learn English and the rest 18.5 percent do not have it. It also proves the fact that in almost every subject of Jahangirnagar University, there is at least a course that helps the students in learning English.

Item - 5:

This item tries to sort out whether there is any English course in the department syllabus or not and if not, whether the students are attending any English course in any other place rather than the University campus. If the answer is 'yes', the paper tries to know about the place or the person/s and the reasons why they go there. And if they are not having or attending any, then it tries to find out the reason/s behind that. The following table shows the percentage of the responses.

Table 5 : Response to the students' attention or absence in any English course. (N= 200)

Responses	Frequency	Percentage (%)
Yes	70	35
No	130	65

The table above shows that 65% students attend in many institutions for learning English. 35% students do not go for any English course anywhere. The reasons behind that include: distance of the institutions, financial crisis, and time and so on.

Item‑6:

This item investigates the matter that if any respondent thinks that speaking English in classes and with other people increases his/ her status. It was a very vulnerable question so students had to think deeply about it. The table below shows the percentage of the respondents.

Table 6 : Speaking English increases status or not. (N=200)

Responses	Frequency	Percentage (%)
Yes	132	66
No	68	34

The table shows that 66 percent of the students think that speaking English in classes and with other people and places increases one's status and the rest 34 percent think it is not. So, two- thirds of the respondents permit the use of English in various places.

Item‑7:

This item investigates if the respondents are acquainted with the term "Bad English" and if they know, what they think about it. This item was actually given to make them inform the socio-politico implication of English language. The term was taken from the English Textbook for HSC level students in Bangladesh which is titled as "English for Today: for Class xi- xii). May be the students are not familiar with it. Unfortunately, a few students understood and answered the question. Some students answer it but those are not in line with what it wanted. Among 200 students, only 35 students answered the question. The percentage of the students who answered it stands as 17.5% only. Various types of answers were found. Most of them think that because of having grammatical and vocabulary problems, Bangladeshi students cannot make good in the four skills of English. They imposed the idea that good practice is needed to overcome it. Only three students found it to be a kind of politics of the west.

Item‑8:

This item tries to find out if the dressing style of the students is influenced by English language. It is thought by some scholars of recent time that language carries culture and a language can have influence over other culture/s. The table below shows the responses of the students.

Table 7 : English language influences your dressing style. (N=200)

Responses	Frequency	Percentage (%)
Yes	29	14.5
No	171	85.5

The table shows that 171 students (85.5%) think that English language has no influence over Bangladeshi garment style. The rest of the respondents think otherwise. They show that English language has a kind of impact over Bangladeshi University students. They wear some dresses that are the products of the West.

Item‑9:

This item was, "English language influences your eating habit. - Do you agree?" The following table shows the percentage of the respondents.

Table 8 : Responses on the influence of English language over the eating habit of Jahangirnagar University students. (N=200)

Responses	Frequency	Percentage (%)
Yes	15	7.5
No	184	92
Total	199	99.5

The table represents that only 7.5 percent students think that their eating habit is influenced by English language and culture. On the other hand, 184 (92%) students find no influence of the English language over their eating habit. Interestingly, one student of the department of Bangla wrote that it is not applicable to her. In response to her answer she argued that it is not of customary importance to investigate anything like that. The study reveals that almost all the students do not agree with the question. The reasons may be that they are not aware of it or they do not want to think about it.

Item -10:

The item tries to sort out the percentage of the students who think that English language influences their body language and who think that there is no influence of English language over the body language of the students. The table below makes it clear.

Table 9 : The influence of English language over students' body language

Responses	Frequency	Percentage (%)
Yes	121	60.5
No	79	39.5

In the table above, it is found that 121 students (60.5%) think that English language influences the body language of University students. So, they think that the gestures (Hi, Hello, Bye) they make contain the gestures of English culture.

Item -11:

The item investigates if it is possible for a Bangladeshi University student to express his/ her feelings completely in English language. The table below shows the percentage and number of the respondents.

7

Table 10 : Is it possible for a Bangladeshi University student to express his/ her feelings completely in English language?

Responses	Frequency	Percentage (%)
Yes	106	53
No	94	47

The table shows that 53 percent of the students think that it is possible but the other 47 percent students find it impossible. It signifies the fact that the students have mixed feelings.

Item - 12:

This item finds out if the students speak English in the same way at home (village/city) as they speak in the campus. It contains two sub- questions. Question no. (a) With friends; and (b) with family members. Responses of the students are shown in the tables below.

Table 11 : Speaking English with friends

Responses	Frequencies	Percentage (%)
Never	27	13.5
Sometimes	128	64
Always	45	22.5

Table 12 : Speaking English with Family Members

Responses	Frequencies	Percentage (%)
Never	65	32.5
Sometimes	127	63.5
Always	8	4

Table- 11 and table- 12 show that most of the students sometimes speak in English with their friends and family members. The percentage for the friends is 'Never'- 13.5%, 'Sometimes'- 65%, and 'Always'- 45% whereas for family members it is 'Never'- 32.5%, 'Sometimes'- 63.5%, and 'Always'- 4%.

Item - 13:

This item investigates the students' psychological stance regarding the prestige of Bangla and English language. Most of the students (83%= 166 students) state that English is never more prestigious than Bangla. It may help in job sector but it does not determine its prestige. 14% students (N= 28) think that the statement is true (that English language is more prestigious than Bangla language). They think like that because of the internationality of English language. The rest 3% gave no comment.

Item - 14:

This item investigates "student choice" of the influence of the English media. The respondents were told to rank them according to their view. There were five items in total: English movies and songs; English books, magazines, and journals; English newspapers; English news; and English advertisement. The average of their ranking is shown in the table below.

Table 13 : Ranking of the importance of English Media

Ranking	Items
1	English Movies and songs
2	English newspapers
3	English books, magazines, and journals
4	English news
5	English advertisements

Item - 15:

This item asks if the students think in Bangla before speaking in English. The findings of the question are shown in the table below.

Table 14 : University students think in Bangla before speaking in English. (N=200)

Respondents	Frequency	Percentage
Yes	197	98.5
No	3	1.5

The table shows that almost all the respondents agree that Bangladeshi university students normally think in Bangla before saying anything in English. This percentage is 98.5%. Rest of the students is so proficient in speaking English that they do not need to think in Bangla.

Item-16:

This item investigates if it is possible for the students to think in Bangla while speaking in English. It tries to know if it is possible to think in Bangla and speak in English at the same time. The answers given by the respondents are given in the table below.

Table 15 : Is thinking in Bangla while speaking in English possible?

Responses	Frequencies	Percentage
Yes	132	66
No	68	34

The responses of the students reveal that 66 percent students think that it is possible for them to think in Bengali language and speaking in English language at the same time. On the contrary, the other 34 percent think otherwise (that it is not possible to think in Bangla while speaking in English).

Item - 17:

This item seeks to find out if it is more helpful to write answers in English in the exams rather than in Bangla. It discovers what the students feel from inside. The table below discovers the percentage of the responses of the students.

Table 16 : Is it more helpful to write answers in English in the exams rather than Bangla?

Responses	Frequency	Percentage (%)
Yes	163	81.5
No	37	18.5

In the table, 81.5% percent students think that it is more helpful to write answers in English in the exams rather than Bangla.

Item-18:

This item investigates if the English language teachers insult the students if they cannot speak in proper English in class. The table below makes the percentage of the responses clear.

Table 17 : Does the teacher insult the students if they cannot speak correct English in the class?

Responses	Frequency	Percentage (%)
Yes	22	11
No	178	89

The table shows that there are only 22 (11%) students who opine that their English language teachers insult them if they fail to answer the teacher in the correct form English. From the answers of the respondents, it can be assumed that there are some English language teachers who unconsciously get angry on the students and insult them.

Item-19:

This item seeks to know from the respondents if having a good command over English language helps the students to get good jobs in their future life. The table below shows the responses and their percentages.

Table 18 : English helps to get good jobs. Do you agree?

Responses	Frequency	Percentage (%)
Always	132	66
Sometimes	66	33
No	02	01

66% percent students think that English helps them to get good jobs always, 33% percent think that it works sometimes and the rest 1% percent thinks that English never helps them in getting good jobs.

Item-20:

This item finds out the students' evaluation of the teacher's importance on four language skills. It sorts out the students' choice of the four skills regarding importance. The following pie chart shows the students' choice below:

Figure 1 : Pie chart 1: List of the four skills according to the teacher's importance

The pie chart shows that 65% students think that their teachers pose importance on speaking. This percentage is 20% for writing, 8% for Reading, and only 7% for listening.

Item-21:

This item investigates the matter that if the students agree with the proposition that most often many speakers in Bangladesh find problems in expressing thought in English. The table below shows the proportions of the students' responses.

Table 19 : University students in Bangladesh find problems in expressing thought in English. (N=200)

Responses	Frequency	Percentage
Yes	195	97.5
No	5	2.5

The table illustrates that almost all the students find problems in expressing thought in English. Sometimes it happens that the element of a language cannot be expressed in another language. For example, two speakers are talking to each other. The first one is Bangladeshi and the second one is English. The second speaker says to the first:

P2: What are you eating?

The first person was eating Jackfruit but he does not know the English word 'Jackfruit' for it rather he uses the Bangla "KATHAL". He answers-

P1: I am eating, er, umm, what should I say, "KATHAL".

Item-22:

This is the last item in the questionnaire. It is given to the students in order to investigate if it is possible for a university student in Bangladesh to speak like a native English speaker. The responses of the students are shown in the table below.

Table 20 : Is it possible for a Bangladeshi University student to speak like a native English speaker?

Responses	Frequency	Percentage
Yes	113	56.5
No	87	43.5

The table shows that 56.5 percent students think that it is possible for a university student to speak like a native English speaker. The rest 43.5 percent think it is not possible.

a) *Findings and Discussions of the Instruments for the Interviews*

i. *Interview of the Students*

The 10 students whom the paper has included in the interview gave ample interesting information about their learning of English language and the impact of their learning over themselves. It was conducted to observe if the respondents answer the questions in the same way they answered in the questionnaire. The ten students were chosen for interview on the basis of various issues: different departments, different districts, various types of family background and different family income. The research added some more questions in the interviews apart from the questions in the questionnaire. The interviews for each student were arranged at different times. Three students from the IBA, two from Chemistry, two from Drama and Dramatics, two from Bangla, and one from Philosophy department (s) were chosen for interview. The interviews find that 8 of the 10 students (80%) think that English language influences the students' life and Bangladeshi culture to a great extent. They state that this unconscious use of English gradually creates a sense of replacing elements of Bangladeshi culture by the elements of English language and culture. It is destructive for Bangladeshi culture. 9 of the 10 students (90%) opine that having a good command of English would help them get good jobs in future.

ii. *Interview of the Teachers*

Taking the teachers' interview was thought to be very difficult but the very co-operative nature of the teachers accelerated the pace of the study. All the five teachers are from the department of English who teach English language course in different departments apart from the department of English. Each interview was arranged at different times. They helped the research by providing information about the contents of the courses, teaching styles and students' quality and aptitude. There were 10 questions for the teachers which were pre-planned.

Shahinur Rahman, a Professor of the department, opined that when our students write a paragraph about "Cow", they obviously put our own cultural thoughts but they have to write it in English. So, apart from the linguistic influence, English has no influence over Bangladeshi culture.

Laizu Nasrin, Assistant Professor of the department, informed that she does not speak in English in the class always. When she finds that students have difficulty in understanding her language, then she speaks in Bangla for clarification. When a student knows that s/ he cannot speak and write correct English, s/ he gets frustrated. This frustration can influence him/ her to think that English language and culture is superior. She informed that one of the reasons behind the students' lack of proficiency in English language is that their parents are not fluent in English. She thinks that environment is liable for this. According to her, English language is playing an important role in changing the eating habits and dressing style of the students of JU. T- Shirts and Jeans are the example. Besides, students like to take rich food (Burger, Roll etc). She thinks that it is so- called smartness. Her last suggestion was that English is very influential over our mother tongue - Bangla language. So, she suggested that the good things must be taken for granted. That is why, students must be taught well so that they can identify good and bad things of the other cultures.

Golam Rabbani, a lecturer of the department, says that media is very crucial in learning English. He suggests the students to read "Ordinary Fictions" like the writings of Sidney Sheldon because these are written in contemporary form of English. He does not think that English language has any impact on our cultural elements. His argument is that the university students are well- aware of what is good or bad. But he says that this impact is great on the teenagers. He also thinks that speaking English language well creates a sense of pride among some students.

Shwagota Sayeed, one of the lecturers, stated that students of various departments showed different feedbacks. She takes classes in the Biotechnology Department and in URP (Urban and Regional Planning) Department. She does not think that English language plays any important role over Bangladeshi culture.

Sadeka Sabrina Haque, another lecturer, who takes class in the Economics Department, rarely uses Bangla language in the English classes. She emphasizes the reading of textbooks, role playing, completing sentences, and advanced writing in the class. She thinks that English media plays a very important role in learning English language and culture. She also thinks that speaking good English brings changes in the psychology of the students because it is a kind of sophistication to some of them and it creates a kind of superiority complex among them.

It is seen that almost all the teachers agree that English language creates a kind of superiority complex among the students. Some of them also think that overuse of English can harm students' psychology.

IX. Recommendations

The impact of English language is seen in many sectors in Bangladesh, for example, FM Radio. The RJs

(Radio Jockey) use a language which is a mixture of Bangla and English and it is better be called "BANGLISH". Students of Jahangirnagar University also use it when they speak. They use it in two ways: they infuse English words and affixes inside Bangla language or they jump from Bangla sentence to English sentence. The first one is called 'Code-mixing' and the second one is called 'Code- switching'. Braj B. Kachru defines 'Code-mixing' in his essay "The Alchemy of English", as "the use of lexical items or phrases from one code in the stream of discourse of another". (Ashcroft et al, 1995: 292) For example, a student named Rokonuzzaman Orko (3rd year, Department of Drama and Dramatics), says in the interview, "AMADER ENGREZI SHIKKHA BABOSTHAI *PROBLEM* ASE". It is easy to trace that the word 'problem' is a product of English language. He could use the Bangla equivalent "SHOMOSSHA" for it but he finds it comfortable to say "PROBLEM". Another example of 'Code- switching' can be found in Salman Rushdie's Midnight's Children. There he writes, "never called me *tu* (you) either. Always *aap* (you)." (Rushdie, 2006) Code - switching is found in the following conversation.

P1: How are you?

P2: Fine. And you?

P1: ASI (going on). KONOROKOM (so-so).

P2: KI BAPAR. TOMAKE EMON BISHONNO DEKHASSE KENO? - (what's the matter? Why are you looking gloomy?)

The short discussion above is an example of code- switching. Apart from this linguistic influence of English, students take some food (Roll, Hotdog etc), wear some dresses (Jeans, T-shirts etc), which also influence their lifestyle. Speaking English sometimes is a matter of prestige. There are some persons who themselves cannot speak English but like the people who can speak it. It is only because English has gained international importance or speaking good English helps to get good jobs.

The first recommendation is that English language must be used up to a limit. Using English more or less than it is needed is a bad tendency. At the present time the students for the optimal use of English, the teachers can do the following:

1. They can classify students in various groups according to their proficiency level by taking a proficiency test after they are admitted in the department.
2. They can find the problems of the students and teach them only those things.
3. They can come forward to open at least an English course in every department of the University to teach them correct English because still there are some departments where there is no English course.
4. They should provide up - to - date knowledge to the students as much as possible.
5. They should put equal importance on all the four language skills.
6. They can provide the students clear knowledge of English culture.
7. They must avoid any kind of biasness for any language when they are giving lectures in the class.
8. They should increase the use of English media in their teaching process.

The students have to be aware of any kind of negative effect of English language that can be a threat to their own language and culture. Before using any sentence of English, they must know about its use well. The students who can speak better than others must not think themselves superior. If they do that, the comment of Das Gupta that "they (the British) attempted to prove that English language, culture, literature and people were superior to anything and this was the primary purpose for introducing English as the medium of instruction and as a subject of study" (1970, 40) will become true. They should not do this. Otherwise, errors will occur and his/ her linguistic ability will never be good. From the interview session, it has come out that students have a tendency to speak like the newsreaders of BBC or CNN. It is not a problem but if they follow the dialects of English that are not standard, that will be bad for them. The students must not find any idol in any of the teachers because the teachers also have few problems in speaking English because they are not the native speakers. They should not think that whatever the teachers say is correct. The teachers may be correct but the students should go for various sources for further clarification. If it is a must to learn English, the study suggests the students to learn it correctly so that they can communicate well. Students are also suggested not to overuse English.

English language has become so much prevalent among the students that they think it as a common affair. The situation cannot be avoided although some African writers intend to "Appropriate" English language for their own purpose. This inevitable nature of the present impact of English has been described by Chinua Achebe in a speech entitled 'The African Writer and the English Language' (1975). He describes here, "Is it right that a man should abandon his mother tongue for someone else's? It looks like a dreadful betrayal and produces a guilty feeling. But for me there is no other choice. I have been given the language and I intend to use it. (Achebe 1975; 62) One last thing, if every student here learns or acquires English, there is no problem but one thing must be noticed and that is the conflict between the two which may destroy both.

X. Conclusion

Bangla is the language of our mind. It carries our cultural values, our ethics, and emotion. It is not only a way of communication but also the totality of our ideological standpoint. On the other hand, the whole world is using English only for wider communication. But like Bangla, it also carries the values, ethics, emotion and cultural elements of some other nation/s. So, if we take it as Bangla language, it is not a problem. If we use it as we use Bangla language that is even no problem. But to lose one's own cultural values cannot be heroic in any sense. In the language of Kachru (1986), "the English language is a tool of power, domination and elitist identity…'' (Ashcroft et al, 1995:291)

Raja Rao (1963) asserts that English "is the language of our intellectual make- up- like Sanskrit or Persian was before- but not of our emotional make- up." (Ashcroft et al. 1995: 296) Even if the students of Jahangirnagar University go on speaking English for centuries and even a thousand years, they would never be able to match themselves with the tempo of English language. That feeling of Bangla will never be found in their English. It will be motion without emotion. And if the students do not become aware of the negative impact of it, in the language of Chinua Achebe, their English "will have to be new English, still in full communion with its ancestral home but altered to suit new surroundings."

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XI. Appendix

a) Respondent's Questionnaire

Nowadays the use of English language has become so common a phenomenon in Bangladesh that people take it as a necessary part of their life. This frequent use has both good and bad effects. The purpose of this research is to investigate the consequences and impacts of English language. Particularly it shows the psychological and behavioral changes in the lifestyle of the university students in Bangladesh as a result of using English language. The information provided in this questionnaire will be kept confidential, and will be used for the sole purpose of research. Hope that you will co-operate.

Dissertation Title:

The Impact of English Language on Tertiary Level Students in Bangladesh: Case Study Jahangirnagar University

b) Personal Information

Your Name and Department:

Father's name:
Father's educational qualification and Occupation:
Father's monthly income (if any):
Mother's Name:
Mother's educational qualification and Occupation:
Mother's monthly income (if any):
Present address:
Permanent Address:
Phone and e-mail:
Date:

c) Questionnaire

(Please answer the following questions carefully)

1. Do you speak English with your friends and teachers in the campus?
   i. Never   ii. Sometimes   iii. Always
2. Do you practice English at home?
   i. Yes   ii. No
3. With who do you speak English the most?
   i. Parents   ii. Friends   iii. Teachers   iv. Relatives
4. Is there any course in your syllabus that helps you in learning English?
   i. Yes   ii. No
5. Do you go to any other place to learn English?
   i. Yes   ii. No
   a. if 'yes'- where and why?
   b. if 'no' – why?
6. Do you think speaking English in class and with other people increases your status?
   i. Yes   ii. No
7. The English we use to communicate is called 'Bad English'. What do you think about that?
   (Please write your idea about it in not more than 50 words)
8. English language influences your dressing style? Do you agree?
   i. Yes   ii. No
9. English language influences your food?- Do you agree?
   i. Yes   ii. No
10. English language influences your body language? Do you agree?
    i. Yes   ii. No
11. Is it possible for a Bangladeshi university student to express his/ her feelings completely in English language?
    i. Yes   ii. No
12. Do you speak English in the same way at home (village/city) as you speak in the campus?
    a. with friends -i. Never ii. Sometimes iii. Always
    b. with family members---- i. Never ii. Sometimes iii. Always
13. English language is more prestigious than Bangla language. What do you think? (Write here in only 20 words).

14. English media plays an important role to learn English. Order the following according to your choice.
    (Write your choice on the left)
    - English Movies and songs;
    - English books, magazines and journals;
    - English newspapers;
    - English News;
    - English advertisements.

15. Do you first think in Bangla before speaking in English?
    i. Yes   ii. No

16. Is it possible for you to think in Bangla while speaking in English?
    i. Yes   ii. No

17. Is it more helpful to write answers in English in the exams rather than Bangla?
    i.Yes   ii. No

18. Do your English language teachers insult you if you cannot speak in correct English in class?
    i.Yes   ii. No

19. English helps to get good jobs. Do you agree?
    i. Always   ii. Sometimes   iii. No

20. Order your teacher's importance on four language skills in class.
    - Reading
    - Writing
    - Listening
    - speaking

21. Most often many speakers in Bangladesh find problems in expressing thought in English.
    Do you agree?   ----
    i. Yes   ii. no

22. Is it possible for a Bangladeshi student to speak like an English speaker?
    i. Yes   ii. No

Austronesian Languages in Papua A Description of its Phonological and Grammatical Aspects

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Abstract - The unique place in the globe which owns almost thousands of languages is found in New Guinea Island; one of the languages belongs to Austronesian languages are the primary focus in this article. These languages and other languages in this island are noted to be gigantic assets to linguists who are interested in exploring the distinctive languages in the world in the area of linguistics. The article aims at presenting the historical description of Austronesian languages including its characteristics. Its phonological and grammatical aspects are presented to demonstrate the uniqueness of these languages used by speakers who have typical characteristics of the Austronesian cultural back-grounds. A brief history of Austronesian culture is also provided. The word "Papua" (used to be called Irian Jaya) in the above title is the name of the Eastern Province belongs to the Republic of Indonesia. This province shares border with Papua New Guinea (PNG).

AUSTRONESIAN LANGUAGES IN PAPUA A DESCRIPTION OF ITS PHONOLOGICAL AND GRAMMATICAL ASPECTS

Strictly as per the compliance and regulations of:

Austronesian Languages in Papua. A Description of its Phonological and Grammatical Aspects

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Abstract - The unique place in the globe which owns almost thousands of languages is found in New Guinea Island; one of the languages belongs to Austronesian languages are the primary focus in this article. These languages and other languages in this island are noted to be gigantic assets to linguists who are interested in exploring the distinctive languages in the world in the area of linguistics. The article aims at presenting the historical description of Austronesian languages including its characteristics. Its phonological and grammatical aspects are presented to demonstrate the uniqueness of these languages used by speakers who have typical characteristics of the Austronesian cultural back-grounds. A brief history of Austronesian culture is also provided. The word "Papua" (used to be called Irian Jaya) in the above title is the name of the Eastern Province belongs to the Republic of Indonesia. This province shares border with Papua New Guinea (PNG).

Keywords : nan (non austronesian); an (austronesian); an1 (austronesian 1); an2 (austronesian 2).

I. Introduction

The Austronesian language family constitutes the largest language family and the second most widespread after the Indo-Europen in the world (Gleason, 1955). The Austronesian family extends from Madagascar in the West to Easter Island in the East. This family is divided into two, i.e., Western Austronesian (Indonesia) and Eastern Austronesian (Oceanic). The Eastern Austronesian is divided into three: Micronesian, Polynesian, and Melanesian (Grace 1979: 62, Gleason, 1955: 410, Capell, 1969: 18, Sirk 1978: 255). Those belonging to Western Austronesian are Malay (extended throughout coastal Sumatera, Malay, Kalimantan, and elsewhere), Javanese, Sundanese, Batak, Balinese, Dayak, Makasar, Tagalog, Bisawan, Ilocano, (the last three in the Philippines), Chamorro (in Guam) and Malagasi and Bushi in Madagascar. The Polynesian languages cover the area from Hawaii to New Zealand including Hawaiian, Tahitian, Samoan, and Maori. The Micronesian covers Mariana Islands, Guam, Gilbert Island, Nauru, and the Islands nearby. The Melanesian covers New Guinea, Fiji, Solomon Islands, Vanuatu, New Caledonia, Tuvalu, and the Bismarck Archipelago (Gleason, 1955: 410, Sirk, 1978: 255).

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Hesperonesian is another name for Western Austronesian given by Dyen (1978: 237). Dyen divides Western Austronesian into the Philippine and the South Sunda based on the characteristics of verb morphology. The Philippine consists of the Philippines, Taiwan, the Sangir Talaud, and Northern part of Sulawesi and Kalimantan. The South Sunda consists of Sumatera (except Acehnese), Islands West Sumatera, Malay Peninsula, Java, Madura, Bali, Lombok, greater part of Sulawesi, and some languages in Kalimantan such as Kendayan (Sirk, 1978: 258). Besides, Dyen (1978: 235) also divides Austronesian in Indonesia into Western Indonesia and Eastern Indonesia. The Eastern Indonesia covers the areas from Sumbawa in the South, Celebes in the North, and Western Shore of Geelvink Bay in the East. Another division is based on Brandes line. It says that the Western boundary of Eastern Indonesia is from West Roti in the South goes up to East of Sulawesi between Banggai Island and Sula Island, goes up to Sangir Island, and to Talaud Island in the North. This division is based on 'the proposed genitive'. It means that in the Eastern Indonesia languages, the noun phrase with genitive modifier consists of the possessor followed by the modifier with the head.

Compared with the Papuan languages, AN in New Guinea (the whole Papua Island) are much lower than the former in number of speakers, number of languages, and the areas where they are spoken. The New Guinea Island or Papua lies to the East of all the great islands of the Malay Archipelago and forms a blockade between them and the Pacific Ocean; its Southern part of the island stretches out towards the continent of Australia separated by the Arafura Sea and Torres Strait, which at its narrowest point is the great group of the Solomon Islands on the South of the Equator, while the Northern is the cape of Arfack Peninsula (Yembise, 2011). New Guinea has more or less one thousand languages consisting of appro-ximately 750 Papua New Guinean and 250 languages in Papua, so about one-fifth of the world's languages are spoken on the Island of New Guinea (Ajamiseba, et al., 2001). It is also a fact that in this one province of Papua, these languages are spoken over one third of all the languages in Indonesia which are Papuan and Non Papuan languages.

There is a linkage between Papuan languages and Non-Papuan (Wurm, 1982 cited in Purba, 1994). Greenberg, for example, states that there is a sign of interrelated symbols between Papuan languages with Tasmanian languages; however it is lacking evidence. On the contrary, Wurm argues that the link is closely related to Andaman rather than to Tasmanian languages. It is due to the similar lexical and structural aspects and typological grounds between Andaman and Papuan phylum languages. Laycock (Purba, 1994), on the other hand, points out the interrelationships between Burmic language (South-East Asia) and Sko Stock language (Jayapura) since they both have tonal features, complex verb morphology, heterorganic consonants. From the illustrations, it is assumed that Papuan languages might have originated from Andaman and Burma.

Moreover, Purba (1994), in his article on the description of Papuan languages, claims that there has been a lack of adequate knowledge on the status of New Guinea's languages. Humbolt quoted by Purba (1994) discovered in 1839, that the Polynesian language is in some forms related to Indonesian language. Sydney (in Purba, 1994) discovered the existence of Non-Austronesian which was the original of New Guinea languages. Sydney maintains further that Austronesians first travelled from the West, continued their adventure over the North of New Guinea to Salomon. The AN speakers occupy only coastal areas except in few areas. This condition can be interpreted that the AN speakers are immigrant rather than indigenous (Capell, 1978: 6). Foley believes that the speakers of AN came to New Guinea five thousand years ago. Purba (1994) clarifies the movement of the people in terms of migration.

First migration was the moving from vicinity of Rooke Umboi Island near the west tip of New Britain. Second migration was from the Philippines via north coast of New Ireland to eastern Melanesia. According to Pawley and Green quoted by Foley (1986) the Austronesian people arrived in New Guinea five thousand years ago and now there are around 200 Austronesian languages spoken in this area (Purba, 1994:19)

The Papuan languages are divided into two major classifications: Non Austronesian and Austronesian (Purba, 1994: 21). It is estimated that those who speak Non Austronesian exceed those of Austronesian in number (Purba, 1994). Non Austronesian falls into Trans New Guinea phylum, Sko phylum, Kwontari phylum, East Bird's Head phylum, Geevink Bay phylum. Austronesian comprises Geelvink Bay West (Biak Numfor), Geelvink Bay Island (Yapen Waropen, Geelvink Bay East (languages of Sarmi coast district), and Northen coast East (Ormu and Tobati).

II. The Characteristics of Austronesian Languages

Purba (1994) states the Capel's Survey of New Guinea Languages indicates the characteristics of Austronesian (AN) languages as : (1) Compared with those of NAN languages, phonemic patterns of AN languages are not complicated; (2) Most have a five-vowel system, except some languages in Papua New Guinea, which have even vowels; (3) Generally, they have few or no clusters, except in Numfor-Biak and neighbouring areas in Geelvink Bay; (4) Voiceless fricative consonant is usually labiodentals /f/, but the voiced fricative is bilabial /v/; (5) Prenasalisation in some areas is normal; (6) Stress is usually predictable; (7) They have a simple consonantal system; (8) Glottal stops and velar nasals are rare, and velar fricative /g/ is common in a large number of Islands Melanesians languages; (9) Noun phrases with an adjective modifier are constructed by placing the modifier after the head. Noun phrases with a numeral are also constructed likewise. Numeration is usually quinary, based on five; (10) Verbal phrase is fairly simple. Verbal is usually preceded by a subject marker (person and number), even if the sentence has noun subject. It can also have an object and/or a tense marker; (11) Passive form is rare; (12) Some have tenses, but they are not emphasised; (13) Word order is SVO and they have prepositions instead of postpositions; (14) All are event dominated, the interest is on what happened, when and how it happened, rather than in people or object involved or the place of the occurrence; (15) Degree of complexity of morphological structure of the verbs ranges from west to east. The farther east along the north coast, the more complex they are. This apply not only to the north coast but also to the Island groups and the mainland; (16) Some of those characteristics only appear in the Austronesian type which has SVO and preposition, but do not exist in the Austronesian type which has SOV and preposition.

Capell (1969: 126) divides the Austronesian languages in New Guinea based on syntactical word order into Austronesian-1 (AN1 and Austronesian -2 (AN2), respectively: a) those with SOV word order and with the use of postposition; and b) those with SVO word order and with the use of preposition. Then he subdivided the AN1 (including those in PNG) into nine groups and the AN2 into ten groups. Out of the nine groups of the AN1, only one group belongs to Papua, namely, Tobati-Ormu at Humbold Bay, and out of the ten of the AN2, only three belong to Papua, namely, Bomberai Peninsula, Geelvink Bay, and North Eastern Irian Jaya. So according to this division in Papua, there are only 4 areas: 1) Humbold; 2) North Eastern; 3) Geelvink Bay; and 4) Bomberai Peninsula. The first belongs to AN1 (with SOV and postpositions) and the rest (three groups/areas) belong to AN2 (with SVO and

prepositions). Unfortunately, the Austronesian languages on the Islands of West of Papua (Raja Ampat Islands) such as Kawe, Legenyem, Ambe, Maya, Matbat, etc. which still belong to Irian Jaya, are not included in the division. To complete the division given by Capell, the group of Raja Ampat must be added. It means that the Austronesian languages in Papua cover: 1) Raja Ampat; 2) Bomberai; 3) Geelvink Bay; 4) North Eastern; and 5) Humbold Bay. But later in 1971, Capell (1978: 65) changed the names the other way around, AN1 became those with SOV and prepositions and AN2 became those with SOV and postpositions because the fact that those with SOV and postposition consist of only few languages around the minority groups (Capell, 1978).

In addition, Capell further divides the AN1 (those with SVO and prepositions) in Papua into: a) Geelvink Bay and Vogelkep; and b) Bomberai Peninsula (Capell, 1978: 269). And the AN2 (those with SOV and postpositions) are divided into: a) Humbold Bay; and b) Sarmi coast. Besides the change of the name from AN1 to AN2 to AN1, he also changed the Sarmi coast languages into: AN2 (with SOV and postpositions). Due to his inconsistence of grouping the Sarmi coast languages, the writer tried to collect data of one of the languages there and analyze them to find out the structure of the languages. Based on the analysis on Sobei, one of the languages in Sarmi has SVO and prepositions. It means it belongs to AN1 (see the map below).

In Papua, there are two hundred and fifty living languages covering Austronesian (AN) and Non-Austronesian or Papuan. The number of the Austronesian languages is only 54, about 20 per cent, while the rest are Papuan. The only language which has a lot of speakers is Biak, it has around 40000 speakers. The speakers of this language occupy Biak Island, Numfor Island, and Northern part of Bird's Head. There are nine languages which have speakers between 1000 and 10000 (Ambai/9000, Waropen/6000, Wandamen-/5000, Ansus/4600, Irarutu/4000, Sobey/1850, Salawat-/1600, Serui Laut/1200, and Ron/1100). All of these languages, except Salawati, are in the Geelvink Bay (Teluk Cenderawasih). And the rest, 44 languages, have only between 50 and 200 speakers (Silzer et al, 1991). Those belonging to the last group are in danger of extinction.

This description of Austronesian languages in Papua was based on the analysis of the sample. The sample covers Kowiai (Walker, 1991), Irarutu (Matsumura, 1991), and Wandamen (Saggers, 1991) in the West, Biak (Fautngil et.al, 1991) and Waropen (Hening et.al., 1991) in the middle, and Sobei (Purba, 2005), Ormu (Purba et.al., 1996), Kayupulau (Purba et.al, 1990), and Tobati (Purba, 1999) in the East. Only eight languages can be used as the sample because all the rest have not been written. The primary sources of

data are the research reports of those languages, and the secondary are books about Austronesian such as *A Survey of New Guinea Languages* (Capell, 1969), and some articles about Austronesian languages in *Pasific Linguistic.*

Geographically all AN can be classified into four groups: a) Island West of Mainland of Papua (Raja Ampat); b) Bomberai Peninsula; c) Island in Geelvink Bay (Teluk Cenderawasih or Sarera Bay); and 5) Northeastern Papua (Sarmi and Humbold). Papuan and Austronesian interfere each other mostly on structure level. Austronesian languages are characterized by the SVO word order and the use of prepositions, but many AN have undergone a fundamental shift in their typological characterization so that they come to resemble the typical Papuan languages, with SOV and postpositions, such as Motu in PNG, and Ormu, Tobati, and Kayupulau in Papua. And some Papuan languages also have undergone some changes in structure by having SVO word order and prepositions, such as Papuan languages in Bird's Head. Mantion, a Papuan language, has changed its word order from SOV to SVO by the influence of Wandamen. And some Papuan languages in North Halmahera suh as Maisin also have been Austronized. Below is the description of the phonological and grammatical aspects of Austronesians which have already been analyzed, followed by a brief description of the cultural background of the native speakers of AN.

III. Phonology

In terms of vowel systems, Capell (1969:26) says that AN languages in New Guinea fall into two groups -- those having a five vowel system (i, u, e, o, a) and those having a seven-vowel system (i, u, e, o, E, O, a) and each of these covers non-overlapping geographical areas. Further he says the velar nasal (ŋ) rarely occurs. About the consonants he says that the AN have p, t, k,?, b, d, g, m, n, ŋ, f, s, l, r, and y, and these languages in general admit few on clusters. Based on the research reports of the languages, the two groups of vowel system are 5 vowels (i, u, e, o, a) and 6 vowels (i, u, e, ə, o, a), but none of them has 7 vowels as mentioned by Capell above. The AN1 have a five-vowel system (missing of ə) and the AN2 have a six-vowel system. Most of the AN1 have only 12 to 14 consonants (p, k, b, d, j, f, b, s, m, n, r, w, y) and AN2 have at least 20 consonants (p, t, k, b, d, g, c, j, p, s, š, x, b, m, n, ñ, ŋ, r, w, y). Some of AN1 and AN2 have bilabial fricatives (b and p) instead of labiodental fricatives (f and v) besides bilabial stops (b and p). In Kayupulau the velar fricative (g) also appears. The velar nasal (ñ) according to Capell rarely occurs, but based on the reports all AN2 have the phoneme and Kowiai (AN1) also has the phoneme. Although Waropen and Kowiai have simple syllabic patterns, respectively three (V, CV, CVC) and

four (V, CV, VC, CVC), Biak, Tobati, Kayupulau, and Ormu have complex syllabic patterns. The syllabic patterns of Biak are V, VK, KV, KVK, KKV, KKVK, KKKV, KVKK, KKKVK, and KKVKK. The patterns show that some of them have a complex consonants cluster which refutes the Capell's statement above. Information above shows also that AN2 have richer phonemes than the AN1. One of Sobey words characteristics is that the words have a lot of glottalized vowels (?) such as in/ma?a/ 'wide', /es?er/ 'rotten', /et?a/ 'full', /monisar?e 'dream', /ema?e?ot/ 'to count'.

IV. SYNTAX

This section describes only about: 1) sentence word order; 2) position of wh-question words; and 3) negation in AN in Papua.

Examples:

In Kowiai (Walker, 1991)
7) *Yei na-sua.* 'Yei like bread.'
   Yei 3ps-like bread
    S   V   O

Examples with SOV:

In Kayupulau (Purba, et. al., 1990)
9) *Nye hova cnia.* 'He eats sago.'
   He   sago   eat
    S   O   V

11) *Nsa norana fekwa na mhara rarai.* 'They cooked taro in the forest yesterday.'
they   yesterday forest in taro   cook
S   AT   AP   O   V

a) Sentence Word Order

Austronesian-1 (AN1) which are the majority of the Austronesian have the SVO word order, while the Austronesian-2 (AN2) which consist of three languages have the SOV one. Examples 7 and 8 show the SVO word order and examples 9 and 10 show the SOV one. In examples 8 and pronominal subject does not appear, but the prefix i- on the verb makes the person of subject is clear. Example 11 (Tobati) shows that adverb (adjunct) of time and place are always placed before the verb for AN2, not at the end (see the map).

In Wandamen (Hening et. Al., 1991)
8) *I-vaoru sasu* 'I buy a shirt.'
   1 ps-buy shirt
    S   V   O

In Ormu (AN) (Purba, et al., 1996)
10) *Nsa mhara rarai.* 'The cook taro.'
   they   taro   cook
    S   O   V

b) Position of Wh-Question Words

Wh-questions such as 'who', 'what', 'when', and 'where' in Indonesian and English are placed at the beginning of the sentence, but in AN2 they are placed before the verb or after the subject. Examples in Ormu, Tobati, Wandamen, Irarutu, and Biak are presented below (Example 12 and 13). Example 14 the word *khacarena* 'where' is placed before the verb 'hold'. It happens also to example 15 (*usahre* 'what').

In Ormu (Purba, et, al, 1996)
12) *Nsa maroro khacarena jai*   ?
they party where hold
'Where do they hold the party?'

In Tobati (Purba, et, al., 1999)
13) *Nti usahre fos*?
he what say
'What did he say?'

Unlike in AN2, Wh-question in AN1 are placed at the end of the sentence. In example 14 the word *vito* 'what' is placed at the end. The same thing happens on examples 15 (*roso* 'where').

Examples:

In Wandamen (Saggers, 1991)
14) *N-unu vitoi*?
2ps-cook what
'What are you cooking?'

In Biak (Fautngil et, al., 1991)
15) *W-un mkan ine roso.*
2sp-take axe this where
'Where did you get this axe?'

c) Negation

The negator 'not' in both AN1 and AN2 is placed at the end of the sentence. Examples in Irarutu and Tobati, are presentend below. In example 16 the word *ti* 'not', in example 17 '*fani*' not', are placed at the end of the sentences to make them negative.
In Irarutu (Matsumura, 1991)

In Irarutu (Matsumura, 1991)
16) *Yahiaro dungin ti.*

In Tobati (Purba, et, al., 1990)
17) *Anyi nhut kh-jai-rok fani.*

Yahia-ro du- n- gin ti
John-foc prog-3ps-sleep not
'John is not sleeping.'

Mother me 3ps-call-1 ps not
'Mother did not call me.'

V. Phrases

This section describes the structure of: 1) a noun phrases with a numeral modifier; 2) a noun phrase with a possessive modifier; and 3) prepositional phrase and postpositional phrase.

a) Noun Phrase with a Numeral Modifier

The numeral modifier in a noun phrase both in AN1 and AN2 comes after the head. The modifier *meniam* 'five' comes after the head *wah* 'canoe' (18), the modifier *ririm* 'five' comes after the head 'ai 'tree' (19).

AN In Tobati (Purba, 1999)
18) *wah meniam* 'five canoes'
    Canoe five

AN In Biak (Fautngil, 1991)
19) *ai   ririm* 'five trees'
    tree five

b) Noun Phrase with a Possessive Modifier

A possessive modifier in a noun phrase comes before the head; it is the same as that in English.

Examples 20 show that possessive modifier *neh* 'my' comes before the head *wah* 'canoe'. The same thing happens in example 21.

In Tobati (Purba, 1999)
20) *neh wah* 'my canoe'
My canoe

In Sobey (Purba, 2005)
21) *ebe dimo* 'their house'
  their house

c) Prepositional and Postpositional Phrase

It has been mentioned before that the main differences between AN1 and AN2 are the sentence word order (SVO and SOV) and the use of preposition for AN1 and postposition for AN2. Example 22 and 23

show prepositional phrases (the relater is place before the axis) and example 24 and 25 show the postpositional phrases (the relater is placed after the axis).

Examples of preposition for AN1;

22) In Biak (Fautgil et.al.1991)
  ro rum 'at home'
  at home

23) In Iraruntu (Matsumura, 1991)
  nene wita 'in the forest'
  in forest

Example of postposition for AN2

24) In Tobati (Purba, 1999)
  r*um hrica* 'beside the house'
  house beside

25) In Ormu (Purba et.al, 1996)
  fekwa na 'in the forest'
  forest in

26) *Na-sabera don na-na Amana.* 'He sells the fish in Kaimana.'
  3ps sell fish 3ps-in Kaimana

27) *U-roa i u-na Amana.* 'I met him in Kaimana.'
  1ps-met him 1ps-in kaimana

In Kowiai not only the verb form is influenced by person of subject but the form of the preposition as well. Example 26: the preposition *na* becomes *nana* because the subject is the first person singular (*na*) and in example 27: the prepositional *na* becomes *una* because the subject is the first person singular (*u*).

Thus, the above description of the phonological and grammatical aspects of the AN is one of the uniqueness languages of the people in New Guinea island who belong to Austronesian culture which is described briefly below.

VI. The Cultural Aspects of Austronesians

The speakers of Austronesian have their own typical history and cultures which are still in connection with the history of the linguistic designation and division discussed earlier. Briefly, Austronesian, a following group after the first inhabitant in New Guinea Island called 'Papuans', is said to be originated from China, continued migrating to Taiwan about 5000 to 6000 years ago, and then, extended their journeys to the South (Muller, 2008). Muller thanked the proof of the out rigger canoe and the sail. The groups made their journey in small numbers. A small group travelled and arrived in the Northern part of Phillipines, then, formed two directions to the South; a group travelled to the southwest (Borneo), Malaysia, Sumatra and Java (ancestors of Malay and Western Indonesia today). The other group went through the South-East, through Halmahera to the Northern coast of New Guinea (the island of Bismarck Archipelago), the Salomon Island, Vanuatu, New Caledonia, and Fiji, finally they made further trip to the East, arrived and posted there as the

people of Polynesia. The evidence can be seen through their advanced water craft, navigation, and sailing techniques (Muller, 2008).

From the above description, the Austronesian, by its name, is not related to Australia especially to the Aborigin of this continent. As Muller states, "the term 'Austronesian', a language designation' can create a confusion as it is close to 'Australia' but has nothing to do with the Aborigin of Australia" (Muller, 2008:48). Thus, the story of the journey of the Austronesian more likely to be the proof of the Austronesian in Papua today , who are dwelling along the coastal areas and some tiny islands on the Northern parts of the Island (see the map). The Austronesians in Papua used to live in sort of high leg-houses made of wood. These people share similar life styles, traditions, for example; daily job, wedding, government, religion, music and arts which are illustrated below.

Firstly, majority of Austronesian in Papua are fisherman, gardener or farmer. They usually operate canoe which is decorated by Melanesian based traditional sign or symbol like other ethnic Austronesian for fishing, travelling or going for battle. They way they catch fish is by using fishing nets and diving. For traditional wedding, bride price is very important to the man if he wants to marry a woman. A man should pay for a woman's parents using a traditional transaction through bride price such as antique Chinese plate, money and housing facilities. In relation to traditional government, the users of Austronesian are strictly bound to the traditional kingdom system in which the king is posted around the head of the bird of this island "islands of Raja Ampat". The traditional system of the head of tribes are popular in the Eastern parts, such as Biak, Serui, Sarmi, and Yotefa (Jayapura), the people here are using the traditional terms of "Ondoafi" (head of tribe) or "Mambri" (head of war). With regard to the music and art, Austronesian has traditional dances and dancers, they usually paint their bodies often with a decoration of colorful fresh flowers. Their popular traditional craft in relation to ritual ceremony, for example, in Biak called "Karwar" (statue). Nowadays, the people of Biak are not worshiping that anymore, just like other Austronesians in other places, they are Christian followers. Finally, the traditional music and song are very much Melanesian based culture using traditional drums "tifa" and guitar "ukulele.

VII. Conclusion

Languages in Papua consist of Non-Austronesian group and Austronesian group, the Austronesian languages are devided into AN1 and AN2 with the main characteristic respectively SVO word order and preposition (AN1) and SOV word order and postposition (AN2). The AN2 phonemes are richer than AN1 ones and consonant clusters of both AN are rather

complex. All AN in Papua have complex affixes on verb to show the person of subject and object. Tobati is a unique Austronesian because it has complex cases. AN pronouns are also complex since they have dual and trial besides exclusive and inclusive. Most of AN numeral systems have base 5. The wh-question words in AN1 are placed after the subject or before the verb and those for AN2 are placed at the end of the sentences. The numeral modifier and the possessive modifier in a noun phrase in both AN comes after the head. Interestingly, Austronesians in Papua, based on the history of their trip to New Guinea 5000 years ago, share Melanesian cultures similar to others countries in Pacific such as Fiji, Vanuatu, New Caledonia. Based on local linguists, a special recommendation with funds from central and local government must be given to language researchers since ninety per cent of the Austronesian languages and cultures have not been analyzed and written yet especially those in Raja Ampat and those around Sarmi. In fact, eighty per cent of the languages have only 50 to 100 speakers and simply old people still exercise the languages; therefore they are threatened to be extinct. Further urgent investigations or analyses are in need of expansion; otherwise, the speakers from whom the data are collected will not be available anymore since the old people will disappear within less than ten-year times.
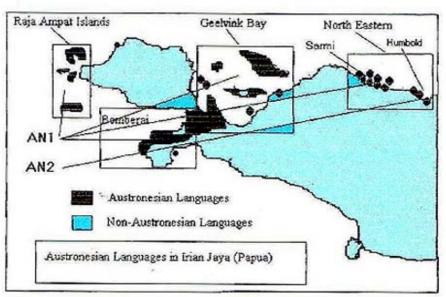
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Map of Papua

Austronesian Languages in Irian Jaya (Papua)

Abbreviations

AN1	= Austronesian-1	2p	= the second person
AN2	= Austronesian-2	2pp	= the second person plural
S	= Subject	2ps	= the second person singular
O	= Object	3p	= the third person
V	= Verb	3pp	= the third person plural
AP	= Adjunct of Place	foc	= focus
AT	= Adjunct of Time	prog	= progressive
1p	= the first person	exc	= exclusive
1ps	= the first person singular	inc	= inclusive

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Towards an engaged Pedagogy: bell hooks Manifesto and the Teaching and Learning of Mathematics

By Iman C. Chahine

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Abstract - The debate over what content and methods should compose the mathematics education of children has been an omnipresent contested discourse in the mathematics education terrain. In today's schooling regimes, the push for accountability and the movement towards a culturally-coded, standards-based curriculum seem to cripple every earnest attempt at rejuvenation and redemption of democratic access to educational opportunities and resources for learners. The abysmal inequalities we witness in schools and societies worldwide have been complicit in creating a rather apocalyptic vision of the future of education as a practice of engagement and empowerment. With a longstanding history that imbibed racial demarcation and reductionist positioning, the quest for liberation through transformative education endeavors appears as if a figment of pure imagination. In the face of intensified challenges that transcend national geographic boundaries, we seek refuge and inspiration by revisiting the works of crucial thinkers such as bell hooks who reminds us of the ultimate goal of education, viz. praxis of humanization and liberation.

TOWARDS AN ENGAGED PEDAGOGY BELL HOOKS MANIFESTO AND THE TEACHING AND LEARNING OF MATHEMATICS

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Abstract - The debate over what content and methods should compose the mathematics education of children has been an omnipresent contested discourse in the mathematics education terrain. In today's schooling regimes, the push for accountability and the movement towards a *culturally-coded,* standards based curriculum seem to cripple every earnest attempt at rejuvenation and redemption of democratic access to educational opportunities and resources for learners. The abysmal inequalities we witness in schools and societies worldwide have been complicit in creating a rather apocalyptic vision of the future of education as a practice of engagement and empowerment. With a longstanding history that imbibed racial demarcation and reductionist positioning, the quest for liberation through transformative education endeavors appears as if a figment of pure imagination. In the face of intensified challenges that transcend national geographic boundaries, we seek refuge and inspiration by revisiting the works of crucial thinkers such as bell hooks who reminds us of the ultimate goal of education, viz. praxis of humanization and liberation.

The purpose of this paper is to shed light on the ideas set forth by bell hooks in her book *Teaching to Transgress* and to further explore its relevance to the teaching and learning of mathematics. Additionally, we will expound on basic issues that reflect her pedagogy including the role of the mathematics teacher and how she envisions the classroom setup. Furthermore, we will relate hooks' work in this book to other discourses in critical theory as well as propose potential impact on our evolving perspectives in critical pedagogy.

I. Introduction/Context: Who is bell hooks?

bell hooks is a teacher, a theorist, an activist, a cultural critic. She is an African American woman who was born Gloria Watkins in 1952 in Kentucky. She lived through the Civil Rights movement of the 1950s and 1960s, and experienced firsthand the upheavals following the 1954 Supreme Court decision in Brown v. Board of Education. The early part of hooks' educational journey took her from a childhood in a segregated Southern community, to a high school experience dominated by the conundrums of court-ordered integration, or desegregation, to the elite college environment of Stanford University.

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hooks' work was foreshadowed as far back as when she was in elementary school. In the Introduction to her book, *Teaching to Transgress*, she states, "Almost all our teachers at Booker T. Washington were black women. They were committed to nurturing intellect so that we could become scholars, thinkers, and cultural workers—black folks who used our 'minds'. We learned early that our devotion to learning, to a life of the mind, was a counter-hegemonic act, a fundamental way to resist every strategy of white racist colonization" (p. 2). Additionally, her later educational experiences in mostly-white institutions, structured to reinforce dominant paradigms, offered no space for critical resistance and revolution. As a theorist and teacher, hooks was motivated to explore feminist pedagogies and soon found out that she occupied a rather uncomfortable space which neither feminists nor African American liberatory theorists wanted to embrace. Undaunted, bell hooks has continued a brave struggle to craft a revolutionary pedagogy that authentically addresses issues of race, class, and gender.

II. Engaged Pedagogy

Inspired by the ideas of Freire and Buddhist philosophy, hooks proposes a pedagogy toward freedom, self-actualization, and students'/teachers' empowerment. This she calls "engaged pedagogy". hooks' *engaged pedagogy* is one that stands in opposition to that perpetrated by the dominant culture. Freire refers to this dominant system as "the banking system of education" where "memorizing information and regurgitating it represented gaining knowledge that could be deposited, stored and used at a later date" following set agendas (hooks, 1994:5,7). Such a system dictates an atmosphere of boredom, disinterest and apathy. As a result, boundaries are created, which neither students nor teachers are allowed to transgress. In this context, only the teacher is responsible for classroom dynamics and is held accountable to the larger institutional structures.

hooks envisions an *engaged pedagogy* as more demanding than conventional critical or feminist pedagogy. She asserts that *engaged pedagogy* emphasizes wholeness, a union of mind, body, and spirit. Equivalently, students should be seen as whole

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human beings with complex lives and experiences rather than simply as seekers after compartmentalized bits of knowledge. Furthermore, sharing confessional narratives in academic discussions of facts or more abstract constructs is a very helpful approach employed in *engaged pedagogy*. It allows students to claim a mathematical knowledge base from which to speak and fosters critical thinking as well. It shows how experience can illuminate and enhance our understanding of academic material. But hooks stresses the fact that both the engaged teacher and her students should be willing to share their stories and not the students alone. In the practice of *engaged pedagogy*, both the teacher and the students must be able to critically listen and hear one another respectfully.

The learning process becomes then one that engages everyone. This way the privileged voice of authority will be deconstructed by collective critical practice. Emphasizing the place of the experience of oppression, which can be either of victimization or of resistance, in the learning process, hooks argues that experience can be a way to know and can inform how we know what we know.

III. The Mathematics Classroom

Needless to say, an engaged mathematics classroom should be one in which freedom is practiced, one that enables and enhances our capacity to be "free". The body should be moved as the mind moves. For hooks learning is most powerful when it liberates. The students should evolve as independent critical thinkers. In this regard, the mathematics classroom should be an exciting place, where instituted boundaries are transgressed. The setup is flexible and noncom-ventional. For example, students and teachers sit in circles where they can see each other. This will help make sustained conversation among students and between students and teacher possible. Agendas are flexible to allow for spontaneous shifts in direction for the purpose of deeper and more engaged learning and problem solving. Students have to be seen in their particularities as individuals and collectively interacting with each other.

hooks considers the classroom as a place for joy as well as serious learning. She insistently shifts the focus from a traditional perspective of a classroom as a place where content knowledge is being delivered to an environment where issues are consciously and critically challenged and debated. hooks, also, persistently highlights the necessity for creating a classroom environment in which students and teachers act responsibly and wisely toward the benefit of collective commune and where knowledge is negotiated and constructed through the praxis of action and reflection.

On another perspective, hooks delineates a vision of the classroom as a common ground where teachers meet to learn and exchange these learning experiences fully. For hooks, learning in the classroom extends beyond learning a content knowledge to a process of deliberately nurturing affective inclinations, emotions, and passions that surface out during intense dialogues. The classroom that hooks advocates is that which challenges patriarchy and transcends the bourgeois biases of class, color, and gender and thus moves toward humanization of individuals equally and collectively. In such a classroom, the monocultural mathematics instruction will be transformed into more inquiry-based exploratory experiences delineating trajectories of ethnic growth, hereof, asserting a mentality of equity and opening up spaces for participation and inclusiveness.

Considering the classroom as the "most radical space for possibility", hooks challenges the idea of a "safe harmonious" classroom and calls for trans-forming it into a communal "holistic model of learning" empowering students as well as teachers toward the pursuit of truth. She insistently invites teachers to create free, flexible and democratic spaces encouraging all students to face their fears and have a "voice" in their own learning. Hence the classroom is the space where freedom of speech and daring ideas emerge and are nurtured by dialogue among students and between students and the teacher. hooks explains that students' diverse experiences, religion, language and culture makes it fundamental for them to have a voice in the classroom. Such perspective encourages a rather humanistic aspect of mathematics as the creative expressions of human thought across cultures and civilizations.

hooks views excitement as necessary to stimulate serious intellectual and/or academic engagement. Furthermore, she asserts that excitement in the classroom does not mean that there should be no reciprocity and respect. In order to create excitement in the classroom, the engaged teacher would need to build classroom communities where everyone will show interest in one another, in hearing each others' voices. More importantly, in an engaged classroom, everyone influences the classroom dynamic, everyone contributes and their contributions are resources which if used constructively, enhance the capacity of any class to create an open learning community. Both the teacher and the student will need to see the classroom always as a communal place so that the likelihood of collective effort in creating and sustaining a learning community can be enhanced.

IV. The Role of the Teacher

In her outcry for renewal and rejuvenation in teaching practices, hooks insists that every engaged teacher must be actively committed to a process of self-actualization that promotes his/her own well-being. She

should be seen to help herself first so that she can in turn heal her students by bringing about enlightenment. She will keep attending classes and will not miss any opportunity to affirm her students' quest for self-actualization. By the same token, students in an engaged mathematics classroom should be able to expect that the mathematical knowledge received in class will enrich and enhance their thinking it will address the connection between what they are learning and their overall life experiences. They should assume responsibility for their choices of what knowledge they want to have and should be able to discuss these choices freely with their teacher. This interchange of ideas means that the teacher's voice should not be the only account of what happens in the class; students' expressions and thoughts should be valued. In doing so, both the teacher and the students grow and are empowered by the process. In addition, the engaged teacher's voice must never be fixed and absolute but according to hooks, should always evolve in dialogue with a world beyond itself.

In an engaged mathematics classroom, the goal of the teacher is not merely to share information and content knowledge but to contribute to the intellectual and spiritual growth of the students. The teacher must teach in a manner that respects and cares for the souls of the students. In this respect, she/he provides the necessary conditions where learning can most deeply and intimately begin, one in which both the teacher and the students are active participants, not passive consumers. Everyone has to claim knowledge as a field in which we all labor in order to be able to change the world.

hooks explains that teachers should be wholly present in mind, body, and spirit while encouraging students to take risks. She further maintains that students bring to the classroom a unique mixture of experiential and analytical ways of knowing which should not be ignored. According to hooks, this complexity of experience can rarely be voiced and named from a distance.

Moreover, teachers should ensure that order is maintained in the classroom while allowing for useful interruptions and digressions. An engaged teacher makes sure that the class does not perpetrate class biases, elitism and other forms of domination. It is her responsibility to address tension in class. Only when students share experiences in conjunction with academic subject matter will they remember each other. bell hooks (1994) envisions the role of the teacher as that of a facilitator, celebrating education as the practice of freedom and urging students, through dialogue, to go beyond boundaries toward self actualization and transformation. Capitalizing on students' experiences as valuable resources for building mathematical instruction, she calls for open, active engagement of students in the

learning process. Highly inspired by Freire's work, hooks fiercely challenged the "banking system" of education and perceived teachers as "healers" concerned with the well-being of their students both spiritually and mentally.

In proposing her transgressive, *engaged pedagogy*, hooks addresses students' resistance to liberation in the classrooms and capitalizeson the role of teachers as models daringly sharing their experiences with students and thus paving the way for free, mature dialogue. Furthermore, hooks emphasizes the importance of having students develop a "voice" in their writings as well as in arguments juxtaposed in the classroom. More interestingly, hooks explains that it is the responsibility of the teacher to encourage those communication skills including listening and speaking by enacting those same skills in his/her classroom. She calls upon teachers to respect and value students' voices and to openly and critically reflect on their ideas so that they'll practice the same discipline with their colleagues.

Perhaps one of the underlying messages that hooks addresses in her pedagogy of freedom and transgression is the idea of a teacher as a learner. The teacher is no longer the sole possessor of knowledge, but rather a catalyst that helps establish an atmosphere where students' thoughts and critical ideas continue to flow fervently and incessantly.

Inherent in the idea of the teacher as a learner is the challenge that hooks sets forth against the routine use of daily, laborious lesson plans. She explains that the fear of not covering enough material is what makes teachers restricted as to what to offer in their teaching. However, she commends that teachers follow "the mood of the class" in deciding how and what to do next.

Engaged pedagogyand revolutionary practice: Relating bell hooks to other critical pedagogues

Bell hooks' *engaged pedagogy* is one approach to critical pedagogy and revolutionary practice. The ideas embraced in the book, *Teaching to Transgress* resonate with readings in Grande, and of course, Freire. Recognizing the political nature of teaching and learning, hooks' engaged pedagogy requires the interrogation of culture, oppression, and committed action.

hooks resonates strongly with Grande (2004) with regard to what Grande calls "whitestream feminism." As women of color, both hooks and Grande have experienced being marginalized by white feminists and also being questioned/marginalized by members of their respective cultural community-Native Americans for Grande and African Americans for hooks. While both hooks and Grande seek common ground with critical feminists who are willing to honestly engage issues of race and culture, both have encountered others who cannot or will not attend to previously marginalized voices and viewpoints. In the chapter entitled *Holding*

My Sister's Hand, hooks explicitly reaches out to white feminists, explicating the historical precedents that complicate relationships between black women and white women, and offering a vision for reconciliation and solidarity.

hooks acknowledges Paulo Freire as one of her most influential teachers. Early in life, hooks came to the knowledge that education was fundamental to liberation. This is a central theme of Freire's work, and provided an almost instant spark of connection when hooks first encountered Freire's writings. Because of the close affinity between hooks' work and that of Freire, many parallels exist between hooks' pedagogy as described in *Teaching to Transgress* and Freire's *Pedagogy of the Oppressed* (1970). In *Teaching to Transgress*, hooks responds to Freire and relates his ideas to the experiences and situations that are central to her work-feminist theory and practice, and critical consciousness with respect to race, class, and their respective "isms." The title *Teaching to Transgress* refers to transgressing the boundaries that these concepts have placed on theory, classroom discourse, teaching, and learning.

Like Freire, hooks is passionately committed to praxis, the active manifestation of learning as social justice oriented change in the world. She enthusiastically writes about the intertwined relationships of learning and empowerment. hooks also extends Freire's work by exploring the importance of love and joy in learning, even in classroom environments.

hooks writes for a wide and varied audience. While she explicitly addresses critical theorists, she also writes for more of a lay audience than do many critical theorists. The use of language itself contains many questions addressed by critical pedagogues and theorists; how can one utilize the "tools of the oppressor" in non-oppressive or at least less oppressive ways? By consciously writing with a voice that is conversational and that tends toward simple words, hooks explicitly disrupts conventions by carefully explicating her densely textured texts as she decenters her language and opens new spaces for critical inquiry. While intensely personal in delineating her theory, hooks explicitly connects her personal story to her critical theorizing. She carries this approach forward with her students; for hooks, this becomes her way for effectively interweaving the lived experience of marginalized people, the development of critical consciousness in teacher and student, and the connection of teaching and learning to committed action.

V. Concluding Thoughts

Bell hooks is a sister-in-spirit and a teacher for us. Her pedagogy is grounded in a deep knowledge of the lived experiences of oppressed and marginalized people. hooks sees transformation as essential to the project of being human and has developed a pedagogy that supports this in personal and societal realms. Her pedagogy radiates hope and love, envisioning learning communities in which people are capable of transformation.

In an era of "accountability" and isolation, mathematics teachers more than ever need support and motivation to strive toward transgression, change, and self-actualization. In the cause of humanization and liberation, an engaged pedagogy calls for radically revolutionizing space, content, and approaches to mathematics education (Chahine, 2013). As an organic model of communal learning and mathematics-identity building, an engaged pedagogy emphasizes the role of the classroom as free, flexible and democratic space for reconfiguring history empowering students as well as teachers toward the pursuit of truth. In such a space, the privileged voice of authority is deconstructed by collective critical practice and where students are seen as whole human beings with complex lives and diverse experiences, sharing their daring voices in continuous dialogue among each other and with the teacher.

Perhaps the hope that hooks talks about in her *engaged pedagogy* can inspire and empower us as mathematics educators to transgress boundaries and rediscover the joy and excitement inherent in the teaching and learning of mathematics. Reading hooks, we feel ourselves opening up to making possibilities real, saying, "yes, we can do this!"

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A Validation and Reliability Study of the Metacognition Scale in Turkey

By Özden Demir

Kafkas University, Turkey

Abstract - The purpose of this study is to test the reliability and validity of Metacognition Scale (MS) developed by Demir (2012) with a view to identifying perceptions of Education Faculty students regarding metacognitive activities. The participants of the study are 250 randomly chosen students who attend three different departments in Kafkas University Education Faculty. The data were analysed through exploratory and confirmatory factor analysis to enhance the construct validity. Internal consistency (Cronbach Alpha) co-efficiency was evaluated for the reliability of the instrument. A 14-item instrument with "evaluation", "organization" and "planning" sub-dimensions was developed as a result of the analyses conducted. Cronbach Alpha internal consistency co-efficiency that explains 53.074% of the total variance was found .87 for the first factor, .65 for the second factor, .70 for the third factor, and .89 in total.

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Keywords : metacognition, reliability, confirmatory factor analysis.

I. Introduction

Learning is a lifelong process. In order for a person to learn completely and experience learning in different areas, it is necessary for him or her to know, apply, and reuse what is learned by recalling. Otherwise, learning will not be complete in situations that lack these three dimensions. Learning is a thinking process and the most comprehensive structure in this process is individuals' own learning and awareness of teaching process, in other words, metacognition.

Individuals who have metacognitive skills get into processes such as activating inner energy to solve a problem, developing positive attitudes for accomplishing a task, being motivated, and paying attention. This process requires self-awareness and self-control. Another dimension of metacognition is knowledge and control of the process. In this regard, learners evaluate what they know and what they should know, thus see where they are, and plan the things they should do with a view to fulfilling their aims. Some other important elements include reviewing the strategies that they developed, evaluating whether the strategies are appropriate for the aims, choosing new strategies if they are not appropriate, and being aware of ways of thinking and developing them. Metacognition starts with a process like this. However, in order for metacognition to take place, learners need to comprehend the meanings of phenomenon, concept and generalizations, which requires metacognitive skills.

With their perception capacity, learners will first come across phenomenon which is small information particles, then form concepts from the common distinguishing features, and reach the generalizations in the field by establishing relationships between the concepts. The role of metacognition is unquestionable in understanding the relationships between these. Hence, metacognition is a higher order thinking process; it will show up with the skills and become an element that can form base for other skills. Kluwe (1982 in Louca, 2003) describes metacognitive activities and addresses the dimensions of metacognition as 1) As a thinking topic, it is one's having information about his/her own thinking as well as others' thinking, 2) As a thinking topic, it is one's motioning and organizing his or her thinking processes as well as others'. Besides, Kluwe uses the term as an administrative process to show both monitoring and organizing strategies (in Louca, 2003, p.11). Brown's (1978) definition includes applied cognition dimensions such as individuals' planning, monitoring, and reviewing thinking (in Paris & Winograd, 1990, p. 16-17). Roll (2007) points that metacognition encompasses two basic skills: knowing about knowing (what do I know?), and organizing knowledge (How can I organize knowledge?) (in Roll, Aleven, McLaren & Koedinger, 2007, p.126).

Gaining metacognitive skills in teaching and learning processes helps learners to plan their work, to think flexibly, and to solve problems effectively. Therefore, learning metacognitive skills contributes to permanent learning. What forms learners' metacognitive skills are their various preferences developed by themselves in the learning process according to their abilities and characteristics. Some of these skills are planning, monitoring what to do and how to do it, and evaluating. Metacognition is a thinking process which takes place in every phase of learning and reflects on students' behaviours. Information gaining process requires planning, evaluating, observing, actively participating in the learning process, and taking control of one's own learning process (Doğanay, 1997, p.39).

Students themselves should choose, observe, and evaluate the topic they need as well as its depth and the way of learning. Learning is a way of inferring meaning. Thus, some evidence for the fact that

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metacognition is integrated with all thinking aspects is that individuals are aware of their own thinking in the things they are doing, they use this awareness in monitoring the things they are doing, they use cognitive processes such as memory, attention and imagination, and they use learning skills. Learning is a thinking process. Therefore, it becomes more permanent with the increase in the thinking skills involved in learning. Processes related to cognition and metacognition are integrated with each other in the learning process. Learning becomes more effective and permanent when learning strategies such as memory which involves repetition, interpretation which involves interpreting the stimulant, and organization which involves transfer are used together with metacognition.

In this regard, improving thinking processes and skills of Education Faculty students is closely associated with the active use of metacognition, organization, monitoring, organization, and self-evaluation skills. Individuals who are aware of learning to learn skills (planning, organization and evaluation) and develop these skills can take the responsibility in the learning process as well as actively experiencing the feeling of self-fulfilment with the responsibility they take. Thus, the main purpose of this study is to identify metacognitive skills of Education Faculty students in learning and teaching environments and to develop an instrument to identify the metacognitive skills of prospective teachers.

II. Method

a) Design of the Study

The present study aims to develop "Metacognition Scale" (MS) and test its validity and reliability at education faculty level. The process of preparing the items in the scale involves preparing the scale items, receiving expert opinions for content validity, conducting the pilot study, performing Exploratory Factor Analysis, Confirmatory Factor Analysis (CFA), and validity and reliability in the analysis of the data.

b) Target Population and the Participants

Features of Target Population and the Participants: Target population of the study is 250 prospective teachers who are enrolled in Kafkas University Education Faculty in 2011-2012 academic year. The participants of the study are 250 students (168 students-67,2% in normal education, 72 students-28,8% in evening education, and 10 students-4% who did not indicate their departments) enrolled in the three departments which were identified according to non-random cluster sampling method (Departments of Classroom Teaching, Psychological Counselling and Guidance, and Social Studies). Of all the students, 123 (49,2 %) are female, 123 (49,2%) are male and 4 (1,6%) did not indicate gender. Findings regarding the

department variable shows that 10 students (4%) attend Social Science Department, 168 students (67,2 %) attend Psychological Counselling and Guidance Department (Pcg), 59 (23,6%) are enrolled in Classroom Teaching Department, and 13 students (5,2 %) did not indicate their departments.

c) The Process of Preparing Metacognition Scale (MS)

The Process of preparing *Metacognition Scale (MS)* included the following stages suggested by De Vellis (2003):

Preparing the Item Pool: The development of the Metacognition Scale (MS) started with preparing the item pool. Therefore, the related literature was reviewed with a view to improving metacognitive skills of prospective teachers and identifying information on the features of these practices. The draft for the first items was prepared in light of these identifications. Draft items were written in the framework of the "Metacognitive Skills" concept which is defined operationally and composed of learner behaviours that improve metacognitive skills as well as the practice setting aspects. These items were reviewed carefully so as to prepare a 100-item pool.

Expert Opinions for the Item Pool: The item pool was sent to three experts for their opinions. One of these experts currently works as a secondary school teacher and has received thinking education course in the master program. The second expert who is specialized on learning-teaching processes currently works in Çukurova University, Education Faculty, Department of Educational Sciences. The third expert specialized on learning-teaching processes works in Trakya University Education Faculty, Department of Educational Sciences and has instructed thinking education course.

Pilot Study for MS: The 100-item inventory draft was tested for its language and comprehensibility with a group of 30 students who are enrolled in the Social Studies teaching department. The items and the page layout were revised in light of the suggestions. Before the actual study was conducted, the revised 80 item inventory was piloted with 209 Education Faculty students from two different departments in one session in a classroom setting. The first efforts that aim to identify the factor structure of MS included examining Kaiser-Meyer-Olkin (KMO) coefficient and Barlett Sphericty factor analysis results with a view to identifying the appropriateness of the data for factor analysis. Results show that the values are statistically significant (KMO=0.879; Barlett Sphericity test $\chi2$ =1.539 df =153 p<.001). Results of the pilot study for the Metacognition Scale (MS) which was conducted with 209 students show that the 18-item form has .89 Cronbach Alpha reliability level in total, .86 in the first sub-factor (evaluation) (5 items), .81 in the second sub-factor (organization) (5 items), .80 in the third sub-factor (organization) (5 items); and .58 in the fourth sub-factor (planning) (3 items).

Table 1 displays factor analysis that is reached with eight iterations and results with four factors as well as factors, factor loads, and factor eigen values obtained from the reliability analyses, variance percentages and Cronbach Alpha values explained by the factors, revised item-total correlations in relation to the items, revised item-total correlations belonging to the items (r), common variances, and t values.

Table 1 : Factors, Factor Loads, Variance Percentages, and Item-Total Correlation Values (r) Explained by the Factors in the Metacognition Scale

Item Number	F 1	F 2	F3	F 4	$\overline{\mathbf{X}}$	T	SS	r
24	.85				3.53	8.12	1.08	.56*
23	.84				3.72	7.11	1.10	.55*
25	.71				3.71	8.87	1.05	.63*
26	.70				3.44	9.23	1.07	.62*
27	.64				3.43	8.42	1.17	.55*
63		.77			3.52	7.46	1.05	.37*
75		.70			3.65	9.44	.93	.61*
76		.69			3.56	7.94	.89	.53*
77		.65			3.56	8.63	1.02	.60*
80		.63			3.66	7.13	.95	.58*
72			.80		3.76	6.63	.99	.51*
68			.74		3.85	7.04	.87	.44*
74			.65		3.82	7.22	1.06	.54*
70			.56		3.76	9.50	1.09	.63*
71			.55		3.55	8.41	1.09	.57*
3				.83	4.09	5.76	1.11	.39*
12				.66	3.92	8.87	1.15	.50*
48				.46	3.61	7.79	1.18	.41*
Range	.64-.85	.63-.77	.55-.80	.46-.83	3.43-4.09	5.76-9.50	.87-1.18	.37-.63
								Total
Variance %	36.69	10.24	7.44	6.08				60.46
Cronbach Alpha	.86	.81	.80	.58				.89

r: Item-total correlations: * indicates significance at .05 level
Note: Factor loads which are lower than .30 are not given in the table to make it easier to follow.
F1: Evaluation; F2: Monitoring; F3: Organization; and F4: Planning

Factor structure of MS was examined with Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Exploratory factor analysis aims to explore factor structure based on the relationships between variables. Confirmatory factor analysis which investigates model-data compatibility tests the hypothesis developed regarding the relationships between variables (Tabachnick & Fidell, 2001).

The first component obtained from the analyses is the "evaluation" dimension formed by the 24th, 23rd, 25th, 26th, and 27th items. Some of the items in this instrument are "I visualise what I have learnt with a view to monitoring my understanding", "I question my understanding while listening to the lesson", and "I sometimes review the topics with a view to understanding the important relations about the content of the topic". Factor loads of the 18 items in this sub-scale are between .64 and .85 and item-total correlations are between .55 and .63. Cronbach Alpha internal consistency coefficient is .86. Exploratory factor analysis results show that the second component in the MS are composed of ten items about the organization dimension of metacognition such as "I make guesses about the possible solutions to the problem in a topic that I do not know, and "I use different thinking techniques and strategies with a view to answering different questions about the content of the lesson" (Item pool numbers: 63, 75, 76, 77, and 80). Factor loads of the items in this factor called "Organizing" range between .63 and .77; item-total score correlations are between .37 and .61, and Cronbach Alpha internal consistency coefficient is .81. The third factor in MS according to the analysis results is the five items that include statements such as "I can identify the critical concepts of the lesson", "I can organize the information about the topic to be learned". This factor is called "organization". Factor loads of these items with .80 Cronbach Alpha internal consistency (Item Numbers: 72, 68, 74, 70 and 71) range between .55 and .80; and the item-total correlations are between .44 and .63. The fourth factor in MS according to analysis results is the one that deals with the planning dimension of metacognition: "I am aware of my own thinking", "Receiving support from the teacher about the content of the lesson helps me to become a successful student". This factor is called "Planning". Factor loads of these items in this sub-dimension with .58 Cronbach-Alpha internal consistency coefficient (Item numbers 3,

12, and 48) range between .46 and .83, and item-total correlations between .39 and .50. Four sub-dimensions explain 60.46 % of the total variance. Cronbach Alpha Internal Consistency of the whole scale is .89. Guttman Split Half values which were performed with a view to finding out the stability or consistency between the two halves are .76 for the "Evaluation" sub-dimension, .76 for the "Monitoring" sub-dimension, .80 for the "Organization" sub-dimension , .43 for the "Planning" sub-dimension, and .81 for the whole scale. An analysis of Table 1 in terms of factor loads indicates that the factor loads range between .46 and .85. When analysed in terms of the items loaded on more than one factor, the items were found to be generally loaded on the related sub-scales with significant differences (generally .30 and over). In addition to these, total scores the participants got from the 18 items were grouped according to top and bottom 27% groups and examined whether the items distinguished these two groups. As a result of this analysis, all the items were found to distinguish the groups significantly (p<.001). Mean scores belonging to the remaining 18 items were found to range between 3.43 and 4.09, and the standard deviations between .87 and 1.18.

Confirmatory factor analysis was conducted with a view to testing the accuracy of the four-factor structure. Although there are many statistics for data accuracy, the most common indicators are $\chi 2$, $\chi 2/df$, RMSEA, NNFI, CFI and GFI values (Sümer, 2000; Çokluk, Büyüköztürk & Şekercioğlu, 2010). Confirmatory factor analysis conducted for reviewing the compatibility of the four-factor model of MS with the data collected and chi-square value performed for model-data compatibility were found to be significant ($\chi 2= 211.05$, sd=129, p<.01).

Examination of the four-factor model which was tested with CFA shows that fit indices values RMSEA=0.055 and $\chi 2/df$=1.63 value and RMR=0.050, STRMR=0.057, GFI=0.90, AGFI= 0.87, NFI=0.85, NNFI=0.92, CFI=0.93 values are suitable for the recommended criteria. Standardized coefficients that show the relationships of the factors with the items were found to range from 0.47 to 0.80, and all of them were significant at .01 level. A general analysis of the model fit indices indicates that the model reaches a medium level fit, but displays a good consistency with the RMSEA=0.055, $\chi 2/df$=1.63 values (Tabachnick and Fidell, 2001; in; Çokluk et al., 2010, 271)

d) Analysis of the Data

Reliability and validity analysis of the Metacognition Scale included performing Cronbach Alpha analysis for reliability, receiving expert opinions for content validity, and performing explanatory factor analysis and confirmatory factor analysis for construct validity. Besides, arithmetic means and standard deviation values of the items and item-total correlations

were examined, and their item discrimination strength was calculated using t-test analysis. Mean scores, t-test, and one-way variance analysis techniques were used with a view to comparing the data in terms of gender, education type, and department variables.

III. Findings

a) Findings Regarding the Construct Validity and Reliability of the Metacognition Scale

The calculation of the skew and kurtosis coefficient of the items in each sub-scale, item-total score correlations, correlation matrix values of the items, their common variances, factor loads (at least .30), and the differences between the factor loads loaded on more than one factor (at least .20) were examined and found that four items should be excluded from the scale. These calculations were performed using principal components factor extraction and orthogonal (varimax) rotation. Kaiser-Meyer-Olkin (KMO) and Barlett Sphericty test results were examined for the factor structure of the gender sub-scale of the Metacognition Scale with a view to finding out whether the data are appropriate for factor analysis. These values were found to be statistically significant in the gender sub-scale (KMO =.914; Barlett Sphericty test $\chi 2$ = 1.853 df =153 p<.001). Results obtained from the student administration of the scale with 250 students show that Cronbach Alpha reliability value of the 14-item, three dimension form is .89, it is .87 in the first sub-factor , .65 in the second sub-factor and .70 in the third sub-factor.

The first results of the factor analysis show that the scale has three components over 1.00 eigen value. However, the items collected under the factors apart from the first three components with eigen value of over 2.00 were either too few in number (one or two items) or had factor loads of over .30 under other components as well, and the loads under the two components were found to be close to each other. Scree plot of the eigen values was analysed and found that the most significant skew occurred in the third factor. The most frequently used criteria in the process of identifying the total factor number included eigen value, percentage of contribution to the total variance, and scree plot (DeVellis, 2003; Kalaycı,2009). Cattel (in DeVellis, 2003) points that the factor number till the scree plot takes a horizontal shape can be used as a criterion in identifying the appropriate factor number. Beside these values, considering that the item pool was prepared under three main titles (F1: Evaluation, F2: Organization, F3: Planning), the factor analysis was reperformed limiting it with three components.

Table 2 displays factor analysis that is reached with two iterations and results with three factors as well as factors, factor loads, and factor eigen values obtained from the reliability analyses, variance percentages and Cronbach Alpha values explained by

the factors; revised item-total correlations in relation to the items; revised item-total correlations belonging to the items (r), common variances, and t values.

Table 2 : Factors, Factor Loads, Variance Percentages explained by Factors, and Item-Total Score Correlation Values in the Metacognition Scale

Item Number	F 1	F 2	F 3	$\overline{X}$	T	SS	r*
4	.75			4.25	-8.337	1.01	.68*
9	.75			3.85	-11.076	1.04	.64*
3	.71			3.89	-10.003	1.03	.60*
5	.71			3.99	-10.135	1.08	.70*
11	.67			3.95	-9.158	1.11	.61*
1	.63			3.50	-10.471	.96	.56*
8	.62			4.20	-9.240	1.16	.63*
12		.66		3.69	-9.131	1.26	.49*
16		.65		3.67	-8.805	1.07	.48*
13		.58		3.76	-11.104	1.01	.61*
14			.70	3.61	-9.104	.94	.48*
17			.65	3.63	-7.879	.96	.46*
6			.61	3.63	-8.276	.98	.52*
18			.58	3.73	-7.211	1.04	.46*
Range	.62-.75	.58-.66	.58-.70	3.61-4.25	-7.211--11.076	.94-1.26	Total
Variance %	24.279	15.303	13.492				53.074
Cronbach Alpha	.87	.65	.70				.89

r: Item-total correlations: * indicates significance at .05 level
Note: Factor loads lower than .30 are not given in the table to make it easier to follow.
F1: Evaluation; F2: Organization; F3: Planning

Factor structure of MS was examined with Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). Exploratory factor analysis aims to explore factor structure based on the relationships between the variables. Confirmatory factor analysis which investigates the model-data compatibility tests the hypothesis in relation to variables. (Tabachnick & Fidell, 2001).

The first component obtained from the analyses is the "Evaluation" dimension formed by the 4th, 9th, 3rd, 5th, 11th, 1st and 8th items. Some items in this scale are "I visualise what I have learnt with a view to monitoring my understanding". Factor loads of 7 items in this sub-scale range between .62 and .75, and item-total correlations between .56 and .70; Cronbach Alpha internal consistency is .87. According to exploratory factor analysis results, the second component in the MS includes three items in relation to the organization dimension of metacognition such as: "While listening to the lesson, I sometimes review the topics with a view to understanding the important relationships regarding the content of the lesson" (Item numbers 12, 16 and 13). Factor loads of these items called "Organization" range between .58 and .66, and item-total correlation is between .48 and .61; Cronbach Alpha internal consistency coefficient is .65. Analysis results show that the third factor in MS is composed of four items regarding the planning dimension of metacognition: "I can create the necessary conditions so as to form the aims of the course" and "I can organize the information about the topic to be learned". This factor is called

"Planning". Factor loads of the items in this sub-scale with .70 Cronbach Alpha Internal consistency coefficient (item numbers 14, 17, 6, and 18) range between .58 and .70; and the item-total correlations between .46 and .52. The three sub-scales explain 53.074 % of the total variance. Cronbach Alpha internal consistency of the whole scale is .89. Guttman Split Half values which were performed with a view to finding out the stability or consistency between the two halves are .84 for the "Evaluation" sub-scale, .50 for the "Organization" sub-scale, .58 for the "Organization" sub-scale , .58 for "Planning" sub-scale, and .82 for the whole scale. An analysis of Table 1 in terms of factor loads indicates that the factor loads range between .58 and .75. When analysed in terms of the items loaded on more than one factor, the items were found to be generally loaded on the related sub-scales with significant differences (generally .30 and over). Arithmetic means of the 14 items range from 3.61 to 4.25 while the standard deviations from .94 to 1.26. Besides, total scores the participants got from the 14 items were grouped according to top and bottom 27% groups and examined whether the items distinguished these two groups. As a result of this analysis, all the items were found to distinguish the groups significantly (p<.001). Arithmetic means of the remaining 14 items range from 3.61 to 4.25 while the standard deviations from 94 to 1.26.

Table 3 demonstrates correlation matrix, arithmetic mean, and standard deviation values in relation to the Metacognition Scale and its sub-scales.

Table 3 : Correlation Matrix, Arithmetic Mean and Standard Deviation Values in relation to the Metacognition Scale Total Score and its Sub-scales

	1	2	3	x	sd
Evaluation	-	.594**	.546**	27,66	5,63
Organization	.594**	-	.549**	11,13	2,57
Planning	.546**	.549**	-	14,62	2,85
Total	.923**	.792**	.777**	53,42	9,46

N=259 **p<0.01, *p<0.05

As seen in Table 3, the first sub-scale in MS demonstrates significant relationships between the second and third total scores (p<0.01, p<0.05), and the second sub-scale between the first and third total scores (p<0.01, p<0.05). The third sub-scale displays significant relationships between the first and the third sub-scales and with the total score (p<0.01, p<0.05). The total dimension of the scale shows a positive significant relationship with all the sub-scales (p<0.01, p<0.05). Arithmetic mean values in relation to MS total and sub-scales range between 11.13 and 53.42 and standard deviations between 2.57 and 9.46.

Confirmatory Factor Analysis: There are a number of fit indices used in CFA with a view to testing the validity of the model. The most frequently used ones among these are chi-square conformance test, Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit test (CFI), Normed Fit Index (NFI), the Non-normed Fit Index (NNFI), and Root Mean Square Error of Approximation (RMSEA).

It is indicated that if the ($\chi2$/sd) proportion calculated with CFA is lower than 5, the model is compatible with the real data (Sümer, 2000). For model-data compatibility, GFI and AGFI values should be over .90, RMS or standardized RMS and RMSEA values lower than .05. On the other hand, some indicators showing the compatibility of the model with real data are that GFI and AGFI values are over 0.85, AGFI values over 0.80, and RMS value lower than 0.10 (Anderson and Gerbing, 1984; Cole, 1987; Marsh, Balla and McDonald, 1988; in, Gülbahar and Büyüköztürk, 2008: 151).

Confirmatory factor analysis was performed with a view to testing the validity of the three-factor structure identified. Although there are many statistics for data accuracy, the most common indicators are $\chi2$, $\chi2$/df, RMSEA, NNFI, CFI and GFI values (Sümer, 2000; Çokluk, Büyüköztürk and Şekercioğlu, 2010). Confirmatory factor analysis was performed with a view to testing the validity of the structure obtained from the exploratory factor analysis.

Confirmatory factor analysis conducted for reviewing the compatibility of the three-factor model with the data collected; and chi-square value performed for model-data compatibility were found to be significant ($\chi2$=151.90, sd=74, p<.01). Some conformity statistics found using the same analysis are ($\chi2$/sd)=2.05, RMSEA=0.064, RMR=0.045, GFI=0.92, AGFI=0.89, NNFI=0.91, NFI=0.87, CFI=0.93. With the first modification conducted (between M13 and M14), confirmatory factor analysis of the three-factor model and chi-square values for model-data compatibility were found to be significant $\chi2$=116.68, sd =73, p<.01. Some conformity statistics found using the same analysis are ($\chi2$/sd)=1.59, RMSEA=0.048, RMR=0.044, GFI=0.94, AGFI=0.91, NNFI=0.95, NFI=0.90, CFI=0.96. A general analysis of the model fit indices indicates that the model reaches a medium level fit, but displays a perfect consistency with the RMSEA=0.048, $\chi2$/df=1.59 values (Tabachnick and Fidell, 2001; in; Çokluk et al., 2010, 271).

Table 4 displays t-test results of the students' answers given for evaluation, organization, and planning dimensions according to gender variable.

Table 4 : T-test Results of the MS Sub-dimensions according to gender variable

Sub-dimensions	Gender	N	X	S	Sd	t	p
Evaluation	Female	123	28,30	5,46	244	1.596	.112
	Male	123	27,05	5,76			
Organization	Female	123	11,59	2,28	244	3.132	0.02
	Male	123	10,58	2,77			
Planning	Female	123	14,73	2,57	244	,677	.499
	Male	123	14,49	3,08			
Metacognition Total	Female	123	54,53	8,79	244	2.018	.045
	Male	123	52,13	9,85			

Analysis results show that the participants' metacognition perceptions significantly differ in organization [t(244)=3.132; p<.05] and total [t(244)=2.018; p<.05] dimensions in terms of gender.

Table 5 displays descriptive statistics regarding the participants' answers in relation to evaluation, organization, and planning sub-dimensions according to the departments they attend.

Table 5 : Descriptive Results in relation to the Department Variable according to the Sub-dimensions of the Metacognition Scale (MS)

Sub-dimensions	Departments			
Evaluation	Social Sciences	10	26,3	9,36
	Pcg	168	28,38	5,22
	Classroom Teaching	59	25,85	5,72
	Total	237	27,66	5,56
Organization	Social Sciences	10	10,7	2,94
	Pcg	168	11,47	2,4
	Classroom Teaching	59	10,36	2,66
	Total	237	11,16	2,52
Planning	Social Sciences	10	15,1	2,51
	Pcg	168	14,91	2,60
	Classroom Teaching	59	13,79	3,18
	Total	237	14,64	2,79
Metacognition Total	Social Sciences	10	52,1	12,60
	Pcg	168	54,77	8,54
	Classroom Teaching	59	50,01	10,13
	Total	237	53,47	9,33

Table 6 presents ANOVA results of the answers given for the evaluation, organization, and planning dimensions according to department variable.

Table 6 : ANOVA results of the answers given for the Metacognition Scale (MS) sub-dimensions according to Department Variable

Sub-dimensions	Source of Variance	KT	Sd	KO	F	P	Difference (LSD)
Evaluation	Intergroups	299,355	2	149,677	4,829	,009	Pcg-Class
	Intragroups	7252,909	234	30,995			
	Total	7552,264	236				
Organization	Intergroups	56,354	2	28,177	4,541	,012	Pcg-Class
	Intragroups	1451,948	234	6,205			
	Total	1508,301	236				
Planning	Intergroups	56,869	2	28,434	3,733	,025	Pcg-Class
	Intragroups	1782,280	234	7,617			
	Total	1839,149	236				
Total	Intergroups	1010,817	2	505,409	6,044	,003	Pcg-Class
	Intragroups	19566,915	234	83,619			
	Total	20577,733	236				

As seen in Table 6, the level of participants' metacognition skills differs significantly depending on the departments they are attending (evaluation: [F(2,236)=4.829; p<.05], organization: [F(2,236)= 4.541; p<.05]; planning: [F(2,236)=3.733; p<.05]; and total: [F(2,236)= 6.044; p<.05]. The results of LSD test performed with a view to finding out the departments that display differences indicate that there is a significant difference in favour of the Pcg department.

Table 7 presents t-test results for the participants' answers in relation to evaluation, organization, and planning dimensions according to type of education variable.

Table 7 : T-test results for Sub-dimensions of the Metacognition Scale according to Type of Education Variable

Sub-dimensions	Type of Education	N	X	S	Sd	T	p
Evaluation	Normal	168	27,59	5,70		-,222	,825
	Evening	72	27,76	5,20	238		
Organization	Normal	168	10,87	2,64		-2,427	,016
	Evening	72	11,73	2,16	238		
Planning	Normal	168	14,31	2,89		-1,963	,051
	Evening	72	15,1	2,65	238		
Total	Normal	168	52,78	9,64		-1,394	,164
	Evening	72	54,60	8,19	238		

Analysis results show that the participants' metacognition perceptions differ significantly according to type of education in the organization dimension [t(238)=-2,427; p<.05].

IV. Discussion, Conclusion and Recommendations

MS process has included the use of many fit indices such as Chi-square Conformity Test ($\chi2$), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), Comparative Fit test (CFI), Normed Fit Index (NFI), the Non-normed Fit Index (NNFI), and Root Mean Square Error of Approximation (RMSEA) (Şimsek, 2007; Hoe, 2008).

Confirmatory factor analysis was performed with a view to testing the validity of the three-factor structure identified in the exploratory factor analysis. Confirmatory factor analysis conducted for reviewing the compatibility of the three-factor model of MS with the data collected and chi-square value performed for model-data compatibility were found to be significant $\chi2=151.90$, sd=74, p<.01. Some conformity statistics found using the same analysis are ($\chi2/sd$)=2.05, RMSEA=0.064, RMR=0.045, GFI=0.92, AGFI=0.89, NNFI=0.91, NFI=0.87, CFI=0.93. The indicators showing the general compatibility of the factor structure are that the chi-square compatibility test is not significant; CFI, NNFI, NFI values are over .90; GFI and AGFI values are over .75; the ratio of $\chi2/df$ is 3 or lower; and RMSE significance level is 0,064.

With the first modification conducted (between M13 and M14) in DFA, confirmatory factor analysis of the three-factor model and chi-square value performed for model-data compatibility were found to be significant ($\chi2=116.68$, sd=73, p<.01). Some conformity statistics found using the same analysis are ($\chi2/sd$)=1.59, RMSEA=0.048, RMR=0.044, GFI=0.94, AGFI=0.91, NNFI=0.95, NFI=0.90, CFI=0.96. A general analysis of the model fit indices indicates that the model reaches a medium level fit, but displays a perfect consistency with the RMSEA=0.048, $\chi2/df$=1.59 values (Tabachnick and Fidell, 2001; in; Çokluk et al., 2010, 271).Confirmatory factor analysis was performed with a view to testing the original factor structure of MS which was also supported by expert opinions; the 14 items in the scale were found to be valid for Education Faculty students. These values reveal that the data compatibility of the model is sufficient (Kline, 1998; Kelloway, 1998; Heubeck & Neill, 2000; Corral & Calvete, 2000; Lewis et al., 2002; Olivares et al., 2004; Ingles, Hidalgo & Mendez, 2005; Sanders et al., 2005; Kahn, 2006; Simsek, 2007; Hoe, 2008).

Klein (1998) and Wiersma (2000) define reliability as the consistency of the instrument in any measurement. The most commonly used reliability method in research is computing Cronbach Alpha value (Dorman & Knightley, 2006; Smolleck, Zembal-Saul & Yoder, 2006; Johnson, Stevens & Zvoch, 2007). The present study has developed a reliable, 14-item instrument in that Cronbach Alpha internal consistency level for the whole scale is .89; it is .87 in the evaluation sub-dimension, .65 in the second factor, and .70 in the third factor.

In line with the features of the items in factors, the first factor was identified as "evaluation", the second one as "organization", and the third one as "planning". This instrument, which is valid and reliable according to the results, is the first instrument in Turkey which was developed using confirmatory factor analysis with a view to identifying perceptions of education faculty students regarding metacognition.

Considering the results of the validity and reliability study conducted with education faculty students and considering that the instrument can measure perceptions of education faculty students regarding metacognition with a three-factor structure;

- The scale is valid and reliable;
- The results to be obtained from the real administration of the scale can provide feedback about students' perceptions regarding metacognition;
- The scale developed can be analysed in the future at meta-analytical level with various participants.
- It is thought that MS can be used in experimental and descriptive studies which aim to identify perceptions of education faculty students regarding metacognition.

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Language Stimulation for Children with Mental Retardation-An Activity Manual for Parents

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Abstract - The objectives of the Study: To develop training activities and guidelines suitable for north Indian home settings in an activity manual and to field test the developed material on a group of Hindi-English speaking parents of mental retardation. Method : 20 Parents and 20 Special educators (Mental Retardation) were included in this study. Field Study tool (Questionnaire) was developed on the base of coverage of content, use of language, style of presentation and difficulties in home implementation. Questionnaire and activities described in the manual were given to all the subjects for one week reading and they were asked to rate the questionnaire.

Keywords : language stimulation, activity manual, mental retardation, home, parents, children, special educators, questionnaire.

GJHSS-G Classification : FOR Code: 200399

LANGUAGE STIMULATION FOR CHILDREN WITH MENTAL RETARDATION-AN ACTIVITY MANUAL FOR PARENTS

Strictly as per the compliance and regulations of:

Language Stimulation for Children with Mental Retardation-An Activity Manual for Parents

Rajeev Ranjan [α] & T. A Subbarao [σ]

Abstract - The objectives of the Study: To develop training activities and guidelines suitable for north Indian home settings in an activity manual and to field test the developed material on a group of Hindi-English speaking parents of mental retardation.

Method : 20 Parents and 20 Special educators (Mental Retardation) were included in this study. Field Study tool (Questionnaire) was developed on the base of coverage of content, use of language, style of presentation and difficulties in home implementation. Questionnaire and activities described in the manual were given to all the subjects for one week reading and they were asked to rate the questionnaire.

Result : The data were statistically analyzed using Independent sample t-test to find out any significant difference among the groups. Result showed there was no significant difference among the groups. Both groups agreed that the most suitable material has been included regarding the coverage of content used in activity manual.

Conclusion : There was no suggestion and no difficulty faced by both the groups while implementing the manual at home, as both Parents and Special Educators rated the questions similarly. The activity manual will be helpful to the parents for planning and carrying out the activities in day to day routine for their child and it's a compliment for the special educators.

Keywords : language stimulation, activity manual, mental retardation, home, parents, children, special educators, questionnaire.

I. Introduction

Mental Retardation (MR) is an idea, a condition, a syndrome, a symptom and a source of pain and bewilderment to many families. Its history dates back to the beginning of man's time on earth. The idea of mental retardation can be found as far back in history as the therapeutic papyri of Thebes (Luxor), Egypt, around 1500 B.C. Although somewhat vague due to difficulties in translation, these documents clearly refer to disabilities of the mind and body due to brain damage (Sheerenberger, 1983).

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Mental Retardation is a disability characterized by significant limitations both in intellectual functioning and adaptive behavior as expressed in conceptual, social and practical adaptive skills. This disability originates before age 18" (AAMR, 2002).

"Five assumptions essential to the application of the definition:

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age, peers and culture.
2. Valid assessment considers culture and linguistic diversity as well as differences in communication, sensory, motor and behavioral factors.
3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the persons with mental retardation generally will improve" (AAMR, 2002).

The definitions prevalent in India are given below, which are a part of legislations adopted by the Government of India, these are:

1. The persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995: Mental Retardation refers to a condition of arrested or incomplete development of mind of a person which is specially characterized by the sub normality of intelligence.
2. National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation & Multiple Disability Act, 1999: Mental Retardation is the significantly subnormal intellectual ability (as measured on individually administered standardized psychometric tests) accompanied by subnormal adaptive (common sense, self-help and survival skills, sometimes known as 'street smart') skills.

A range of problems of children with mental retardation has been reported, among these, speech-language problems are important because speech and language are an important component of commun-ication. Communication is about the transmission of information. Effective human communication relies heavily on language, a system of verbal or gestural symbols governed by rules in a sophisticated code,

though some simple forms of communication such as a hand clap to attract attention, is non-linguistic.

II. Literature Review

Subba Rao, (1992) while describing speech, language and communication problems of Mental Retardation persons, has stated that, "There is no typical speech and language pattern of mentally retarded persons. Mentally Retarded children exhibit a wide variety of speech and language problem and the problems are highly individualistic in nature. That means no two mentally retarded children show the same problems. The range is so wide that one child may not speak at all and understands very little of other's speech where as another child has fairly good comprehension for day to day living and has enough speech to express but the speech is unintelligible. Generally, it is accepted that the speech and language development in mentally retarded children is delayed as compared to normally developing children. That means to say that mentally retarded children develop speech and language skills in the same sequence as do normal children and the factors underlying development are same. However, they develop skills more slowly and they have a lower ceiling of development than normal individuals. The available evidence suggests that mentally retarded children are likely to show specific difficulties or delays in the structural aspects of language particularly in respect of sentence length, syntax and sentence complexity"(PP. 122-123).

The frequency of language disorder is about 100% below the I.Q-20, around 90% between the IQ 21-50, and about 45% in the mild retarded group (Carrow-wool folk and Lynch, 1982). In a retrospective analysis of 300 mentally retarded children done at NIMH (National Institute for the Mentally Handicapped) SubbaRao and Srinivas, (1989) found that, 81.24% had speech and language deficits. It was noticed that 30% of them had no speech and about 60.67% spoke a few words only. All the children had delayed speech and language development, articulation defects were 52%, voice defects were observed in about 39.33% and 13% showed fluency defects. Bharat Raj, (1987) reported that the percentage of speech and hearing defects were 37% in mild, 21% in moderate, 16% in severe mental retardation groups. The most common disorder was delayed speech, which increased with severity of mental retardation. Speech and language defects were more prevalent amongst males than in females. Shah et al (1970) reported that 82% of the 133 cases of mentally retarded from a chronicle population were found to have speech defects and a male-female ratio of 2:1 was observed. Gupta, (1970) analyzed 300 cases of intellectually retarded observed that speech defect was one of the main reasons for psychological consultations. Prabhu, (1968) covering a sample of 320 mentally retarded children showed that 45% of them had speech defects. It was also observed that speech defects were more common amongst a severely subnormal group than the subnormal group.

An invaluable resource in evaluating and treating children with mental retardation is the Childs family. Trying to understand and include families in the decision making process can ultimately be rewarding and beneficial for all involved.

In Indian context only one guide for parents has been developed at National Institute for the Mentally Handicapped (NIMH), Secundrabad, namely "Training in Communication Skills for Persons with Mental Retardation (UTILITY GUIDE FOR PARENTS)," by Subba Rao & Narayan, (2003). The utility guide is divided into two sections, one dealing with details on how children develop their speech and language skills. The other section involves 8 chapters, dealing with activities related to preparatory skills, listening skills, expression skills, etc. Each activity has information on material and context. This has general objectives and limited activities and their examples in each category.

It is felt that the number of such parent utility manual should increase and be available to all needy parents. It is also felt that there is a need to expand objectives and activities to suit different socio-cultural-language speaking environments. The present manual will include a larger set of activities in limited area / objectives. The activities will be focusing on a general north Indian cultural set up.

III. Methods

The Present study aims:
1. To develop training activities and guidelines suitable for north Indian home settings in an activity manual.
2. To include modified and new activities based on the skill areas of prelinguistic skills, listening comprehension of words and word level expression, which are selected from the work of SubbaRao & Narayan, (2003).
3. To field test the developed material on a group of Hindi-English speaking parents of mental retardation.

a) Material

Objectives were planned and activities were written under each objective.

Selected Objectives under each section are written below.

Section 1. Pre-linguistic skills (Attention):
1.A. Helping the child to participate in making and breaking towers.
1.B. Helping the child to match the picture.
1.C. Encouraging the child to attend to puzzles.

Section 2. Listening and comprehension:

2.A. Helping the child in responding to verbal sounds.

2.B. Helping the child to develop name recognition.

2.C. Helping the child to following simple instructions.

Section 3. Word level expression:

3.A. Helping the child to say meaningful single words such as /mamma/, /papa/.

3.B. Helping the child to say his name, or introducing self by name.

3.C. Helping the child to name parts of the body.

Under each objective, three principles were taken, namely: Creating a need to communicate in the environment, Role reversal and Hiding objects. Under each principle three activities were listed, which was based on home environment/ home based.

b)   Language and Scope

Manual was made in simple English, suitable for graduate level educated parents of mentally retarded children. It is useful for parents in implementing home training program and complements the speech language pathologists/ Special educators.

c)   Subjects

20 parents of children with mental retardation and 20 Special educators of the children with mental retardation, with minimum experience of 1 year were involved in field testing.

d)   Field Study tool

Questionnaire was developed on the base of coverage of content, use of language, style of presentation and difficulties in home implementation.

Total number of questions in the questionnaire-15

Total number of multiple choices of questions-10

Total number of open ended or descriptive questions-5

Questionnaire and activities described in the manual were given to all the subjects for one week reading and they were asked to rate the questionnaire based on that.

Questionnaires were rated on a 4-point scale i.e. 1-4 for the purpose of analysis the score was assigned, i.e. 1 - No, 2 - Very limited/ little, 3 - Mostly suitable/ Easy/ Useful and 4 - Very relevant/ Very easy for both the groups only for multiple choice questions. The open ended or descriptive questions were taken as a suggestion to improve or reorganize the activities of the manual.

The data were statistically analyzed using Independent sample t-test to find out any significant difference among the groups.

IV.   Results

For this study 20 parents and 20 special educators were selected and most of the parents and special educators were from various places of Ranchi (Jharkhand) and very few from the Mangalore (Karnataka), India. All Parents were Hindi speakers and had a working knowledge of English. The activity manual and Questionnaire which contains a set of 15 questions, in which question no 1 is excluded from the analysis because it generally tells about the previous experience/ familiarization about the manuals in general. Question numbers 2 to 9 & 15 are multiple choice questions which were rated on a 4 point rating scale. Question number 10 to 14 are open ended/ descriptive questions that focus on coverage of content, use of language, style of presentation and difficulties in home implementation. Questionnaires were given to the parents and special educators for one week reading at the end of which Questions were answered. In order to analyze the data, the rating points were scored as follows: 1 - No, 2 - Very limited/ little, 3 - Mostly suitable/ Easy/ Useful and 4 - Very relevant/ Very easy. The results are presented in this section.

Table 1 : Characteristics of Subjects: Parents group

S.No	Name	Age/Sex	Education	Age of the MR child	Knowledge of English
1.	Mr. J.C	24Yrs/M	BA	3Yrs/M	Yes
2.	Mr. I	32Yrs/M	PUC	3Yrs/M	Yes
3.	Mr. G.S	50Yrs/M	PUC	18Yrs/M	No
4.	Mr. R.P	52Yrs/M	PUC	2Yrs/M	Yes
5.	Mr. B.T	31Yrs/M	PUC	24Yrs/M	Yes
6.	Mr. R.P	52Yrs/M	BA	18Yrs/M	Yes
7.	Mr. V.K	52Yrs/M	PUC	24Yrs/M	No
8.	Mr. S.R	40Yrs/M	PUC	12Yrs/M	Yes
9.	Mr. S.P	55Yrs/M	MBBS	28Yrs/M	Yes
10.	Mr. V.M	35Yrs/M	IA	10Yrs/M	Yes
11.	Mr. S.K	50Yrs/M	MA	12Yrs/F	Yes
12.	Mr. H.S	41Yrs/M	IA	18Yrs/M	Yes
13.	Ms. S.R	33Yrs/F	MA	3.6Yrs/F	Yes
14.	Ms. P	26Yrs/F	BSC	3Yrs/M	Yes
15.	Mr. B.P	25Yrs/M	IA	3Yrs/F	Yes
16.	Mr. S.M	31Yrs/M	BA	5Yrs/M	Yes
17.	Mr. G.S	35Yrs/M	BA	8Yrs/M	Yes
18.	Ms. A. S	30Yrs/F	IA	6Yrs/M	Yes
19.	Mr. K.P	41Yrs/M	MA	10Yrs/F	Yes
20.	Mr. A.P	55Yrs/M	BA	12Yrs/F	Yes

(Note: PUC- Pre University College, IA- Intermediate of Arts, BA- Bachelors of Arts, BSC- Bachelors of Science, MA- Master of Arts, MBBS- Bachelors in Medicine and Bachelors in Surgery,)

Table 1 shows the characteristics of subjects i.e. Name, Age/Sex, Education, Age of the MR child and knowledge of English for parents and Name, Age/Sex, Education, Knowledge of English and work experience for the special educators in Table 2. It can be observed that 17 fathers and 3 mothers participated in the study. The education levels are generally above degree level. Two parents who had no working knowledge of English took the help of other family members in Evaluation.

Table 2 : Characteristics of Subjects: Special educators group

S.No	Name	Age/Sex	Education	Experience	Knowledge of English
1.	Ms. S	23Yrs/F	DSE MR	3Yrs	Yes
2.	Ms. R	26Yrs/F	DSE MR	3Yrs	Yes
3.	Ms. S	27Yrs/F	DSE MR	3Yrs	Yes
4.	Ms. P	22Yrs/F	DSE MR	3Yrs	Yes
5.	Ms. M.P	27Yrs/F	DSE MR	3Yrs	Yes
6.	Ms. M	22Yrs/F	DSE MR	3Yrs	Yes
7.	Ms. S.	25Yrs/F	DSE MR	3Yrs	Yes
8.	Mr. M	35Yrs/M	DSE MR	4Yrs	Yes
9.	Mr. P	26Yrs/F	DSE MR	5Yrs	Yes
10.	Mr. S.M	22Yrs/M	DSE MR	1Yrs	Yes
11.	Mr. J.K	22Yrs/M	DSE MR	1Yrs	Yes
12.	Ms. M.S	22Yrs/F	DSE MR	1Yrs	Yes
13.	Ms. P.S.	22Yrs/F	DSE MR	1Yrs	Yes
14.	Mr. S	18Yrs/M	DSE MR	1Yrs	Yes
15.	Ms. K.P	19Yrs/F	DSE MR	1Yrs	Yes
16.	Mr. B	22Yrs/M	DSE MR	1Yrs	Yes
17.	Mr. N	22Yrs/M	DSE MR	1Yrs	Yes
18.	Ms. H. K	26Yrs/F	DSE MR	2Yrs	Yes
19.	Mr. M.K.	25Yrs/M	DSE MR	2Yrs	Yes
20.	Mr. M.P	26Yrs/M	DSE MR	2Yrs	Yes

As can be observed from table 2: All Special Educators had Diploma in Special Education-Mental retardation (DSE MR), with a minimum experience of 1 Year. All reported a working knowledge of English.

Table 3 : Mean, Standard deviation and t-value for the two groups i.e. Parents (P) and Special Educators (SE)

Questions	Groups	Mean	Standard deviation	t-value
Q.2.	P	2.8	.69	-1.840NS
	SE	3.15	.48	
Q.3.	P	3.1	.44	-2.746NS
	SE	3.6	.68	
Q.4.	P	3.15	.67	-1.334NS
	SE	3.4	.50	
Q.5.	P	2.9	.39	-2.552NS
	SE	3.3	.47	
Q.6.	P	2.85	.74	-2.284NS
	SE	3.3	.47	
Q.7.	P	3.05	.22	.000NS
	SE	3.05	.60	
Q.8.	P	3.35	.48	.000NS
	SE	3.35	.74	
Q.9.	P	3.05	.51	-.273NS
	SE	3.10	.64	
Q.15.	P	3.35	.81	-1.667NS
	SE	3.70	.47	

(Note: NS– Not Significant)

Independent sample t- test was done to find any significant difference between the two groups and results showed that there is no significance difference among the two groups. Table 3 shows the Mean, Standard deviation and t-value for the two groups. The results imply that both parents and Special Educators have rated the Questions on Evaluation of the manual in the same pattern.

Table 4 : Questions regarding Coverage of Content

Q.R Q	Parents				Special educators			
	No (1)	Very limited (2)	Mostly suitable (3)	Very relevant (4)	No (1)	Very limited (2)	Mostly suitable (3)	Very relevant (4)
2.	2	1	16	1	-	1	15	4
3.	-	1	16	3	-	2	4	14
4.	-	3	11	6	-	-	12	8

Table 5 : Questions regarding the Use of Language

Q.R Q	Parents				Special educators			
	No (1)	Little easy (2)	Easy (3)	Very easy (4)	No (1)	Little easy (2)	Easy (3)	Very easy (4)
5.	-	2	17	1	-	-	14	6
6.	1	4	12	3	-	-	14	6
7.	-	-	19	1	-	3	13	4

Table 6 : Questions regarding the Style of Presentation

Q.R Q	Parents				Special educators			
	No (1)	Very limited (2)	Useful (3)	Very relevant (4)	No (1)	Very limited (2)	Useful (3)	Very relevant (4)
8.	-	-	13	7	-	3	7	10
9.	-	2	15	3	-	3	12	5

Table 4, shows the comparison between two groups for coverage of the content of the activity manual among both groups. Relevant questions 2 to 4 are included in this table. The results clearly indicate that in both the groups the agreement is in the most suitable category. While 80% of parents and 75% special educators ratings are obtained Q.No.2, for Q.No.3. 80% of parents and 70% of special educators agree that the manual has very good suitable content. For Q.No.4, 55% of parents and 60% of special educators say mostly stable, which indicates the coverage of content in the present activity manual, is mostly suitable for both the groups.

Table 5 shows the comparison between parent and special educator groups in rating the level of language used in activity manual, elicited by Q.No.5 to 7. The percentage scores for language being 'Easy' are maximum for both parents and special educators. It is also significant that 15-20 of the subjects in the study noted that the language is very easy. It can be concluded that language level was found to be easy or very easy.

Table 6 shows the comparison between parent and special educator groups regarding the style of presentation in activity manual as judged by the subjects; these aspects were included in Q.No.8 & 9. The results indicate that both groups were in agreement that the style of presentation is useful or very relevant.

Question number 10 to14 were open ended questions and all suggestions to improve the manual are listed, if they were given. Suggestions were not given by all the parents and special educators. Few suggestions given by both the groups are divided into two parts. All suggestions regarding the content and presentation of the manual are listed in table 7. All suggestions for home implementation of activities are listed in table 8.

Table 7 : Suggestions for Content and Presentation of Manual

Q.No.	Group	Suggestions	Number of suggestions
10.	P	Make it available in Hindi also Picture should be more Parent education is needed	5 3 2
	S.E	No suggestions/content is good It should include children with CP, Autism & HI More pictures should be added Social skills should be added Activities for grooming should be added Suggestions for the siblings should be added Include the activities which can be given in mingling with the society	10 2 1 1 1 1 1
11.	P	It is good and useful Materials should be divided according to age of the child Presentation of the manual should be more practical It would be better if all the parents who have mentally retarded child called together to express their opinion with group discussion with LCD presentation	5 2 1 1
	SE	It is good and useful Information about neighborhood should be added It should be given in understandable clear and useful Materials should be divided according to age of the child Help the child to use word combination and sentences, when the individual's home is multiword combinations, more from simple to complex sentence	8 1 1 1 1
13.	P	It is sufficient To make the children self independents should be included Job oriented goals should be included Occupational training should be included	6 1 1 1
	SE	It is sufficient Emotional play should be included Social skills should be included Self help skills should be included AAC should be included Job oriented guidelines is needed	4 3 2 2 1 1

Table 8 : Suggestion for Parental implementation

Q.No.	Group	Suggestions	Number of suggestions
12.	P	No difficulty faced	6
		Lack of material	2
		Should cover low economic status	1
		It should be in easy language/formant for rural areas	1
		If people are not educated then difficulty in implementing so he/she should be educated	1
	SE	No difficulty faced	7
		It can be harmful to child in the kitchen	2
		Making the child to listen is difficult	1
		Beginning stage is quite difficult	1
		How to teach the language in profound MR children	1
14.	P	No suggestions	4
		The manual should be well explained	1
	SE	No suggestions	2
		Social skills should be included	1
		Suggestions for the siblings should be added	1
		Information for the teachers should be included	1
		Easy language should be used	1
		Mention more explanations on how to teach language & communication	1
15.	P	To give all parents	11
		To some parents	5
		Give to few parents	4
	SE	To all parents	14
		To some parents	6

About 5 parents indicate that the manual should be available in regional language-Hindi also. The Results clearly indicate that the content and presentation of manual is adequately done.

Table 8 shows the number of suggestions given by parents and special educators for parental implementation. Parents and Special educators, indicate that activities can be carried out at home without much difficulty. More than 50% of subjects in each group, i.e.11 parents and 14 special educators suggest that the manual can be given to all Parents.

The overall findings of this study reveal that the content, language, style of presentation and the activities which are based on general North Indian cultural setup are suitable and useful for the needy parents.

V. Discussion and Conclusion

The present manual is an expansion and adaptation of as earlier communication developmental manual by Subba Rao & Narayan, (2003). The present manual has 10 numbers of objectives and 175 numbers of activities. The activities in the present manual have been prepared keeping in mind a North Indian cultural, middle income group contexts. Parents and Special Educators find the manual useful and easy to use. This generally points to the fact that many such manual covering wider objectives are needed. Some suggestions, such as the need for Hindi translation and adaptation of the manual to rural areas are very good; however they are out of the focus of the present manual. The positive high ratings of the manual by Parents and Special educators indicate how well efforts in the direction are appreciated. All future efforts may take the suggestions from parents and Special Educators seriously. The present manual is useful for language interaction purposes.

a) Limitations of the Study

The number of subjects taken and areas (sections) covered in this study was less & very limited. The planned activities were not based on the child age range and language used in this study was only English.

b) Further Recommendations

More number of subjects and areas (sections) can be included.

The activities can be planned at the base of child age range and the manual can be translated into regional languages.

VI. Acknowledgment

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VII.   Conflict of Interests

This research was not funded. This research work was a part of Master Thesis and has been submitted to the Library of College of Speech and Hearing as well as Mangalore University in 2006. During research, First Author was a student of Master in Audiology and Speech Language Pathology and Second Author was the Professor at College of Speech and Hearing, Mangalore. Currently, the first Author is doing a PhD in Audiology and Speech-language Pathology.

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The Cross-Cultural Communication Effect of Lizhuang, China during the Period of Anti- Japanese War

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Abstract - Lizhuang, the first town of the Yangtze River, during the Anti-Japanese War, together with Chengdu, Chongqing, Kunming, was listed as one of the rear four big resistance cultural centers. The overseas mail could reach as long as it was written "Lizhuang, China ". In the special time Lizhuang, a town with the original population of less than ten thousand, played a special role in the Chinese history. This paper mainly discusses the cross-cultural communication effect of Lizhuang, China during the period of Anti-Japanese War.

Keywords : Lizhuang, China Anti-Japanese War cross-cultural communication.

GJHSS-G Classification : FOR Code: 200401

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Strictly as per the compliance and regulations of:

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I. Introduction

Lizhuang is located in the coast of the Yangtze River. Jinsha River and Minjiang River rendezvous in Yibin and becomes the mighty Yangtze River. Lizhuang is the first town from Yibin down, so it is called the first town of the Yangtze River. During the Anti-Japanese War it was listed as one of the rear four cultural centers of the war, with Chengdu, Chongqing and Kunming. At that time mails from overseas as long as written "Lizhuang China" could be sent there. Some scientific research institutions of Allies also often received academic journals and books from" Lizhuang, China ". That was because a large number of research institutions, such as the Central Museum, the History and Language Institute of the Academia Sinica, Society for the Study of Chinese Architecture, Liberal Arts Research Institute of Jinling University and National Tongji University migrated there from tumbling, and let the border town be boisterous.

These "Xiajiang people" lived and worked in Lizhuang for six years, and forged a profound friendship with Lizhuang people.

In 2010, Professor He Zhili, Doctor supervisor in University of Science and Technology Beijing, Academician of International Academy of Mineral Resources, combined several experts and scholars at home and abroad, and launched an activity of compiling a poetry book "The First Town of China ". With the support of Yibin municipal party committee and government, also related units, professor He as the chief editor, the book was published by China Literature and

History Press. The ceremony celebrating the first publication was on September 3, 2010 in Yibin, memorizing the anniversary of Japan's announcement to surrender to China. In the book 23 academicians were collected, who worked and lived in Lizhuang during the Sino-Japanese War time, and some experts and scholars related with those academicians. The name of the book "The First Town of China" was written by Professor Luo Zhewen, an expert of ancient Chinese construction, who studied and worked for six years in Lizhuang. Shortly after the publishing the book caused great sensation at home and abroad. Many people who know that stage of history or who have relatives once stayed there during the war contacted with professor He in succession. They said there were still some academicians who worked and lived in Lizhuang during the Sino-Japanese war time not collected. So Professor He reoccupied a year time more through various channels collected another 13 academicians. The reprint seminar of the poetry book "The First Town of China" was held on September 28, 2011 in Yibin University. After the issuance of the book reprint, Professor He had a video made and shown on the Internet. This poetry book reproduced from one side of the town, which is located on the bank of the Yangtze River, played a special role during the Sino-Japanese War time. This paper mainly discusses the cross-cultural communication of Lizhuang during the period of Anti-Japanese War.

II. Joseph Needham and Wang Ling

There are 36 academicians in this book, one of them was elected as the first foreign academician of Chinese Academy of Sciences in 1994. That was Dr. Joseph Needham (1900-1995) who was a biochemist and historian of science, graduated from Cambridge University. Such international friends as Joseph Needham, John Fairbank etc. stayed at Lizhuang for a short term. Joseph Needham in Lizhuang gained a number of important historical data for writing his "Science and Civilization in China", and in June 1943 visiting the History and Language Institute of the Academia Sinica moved in Lizhuang he interviewed with the director Fu Sinian for the first time. While discussing Chinese history of science, Fu Sinian introduced an

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assistant researcher of the institute named Wang Ling to Needham. Needham appreciated young and talented Wang Ling, with encyclopedic knowledge; Wang Ling also very admired the well-known Needham who was knowledgeable for Chinese and western culture. Three years later, recommended by Needham, Wang Ling gained scholarship of the British Cultural Commission to study at St. Trinity College, Cambridge. In 1948, Joseph Needham quit office of the United Nations, to return to Cambridge, and started cooperating with Wang Ling to write "Science and Civilization in China". Needham said in the letter to the editor of Cambridge University press that no one was more suitable than him to write that book, because he understood Chinese, and he had life experience in China and associated with Chinese scholars. It was visible to see in his writing at the beginning that he needed Chinese scholars to co-operate.

He said, my experience in China told me that quite a few Chinese scholars and scientists feel confused, why the broad and profound Chinese ancient civilizations died at the age of the ship, not to create the modern science and technology. That was not only the common thinking of Joseph Needham and Chinese scholars and scientists, but also the spirit of their communication and correspondence. Beginning from 1954, Joseph Needham and Wang Ling collaborated on "Science and Civilization in China", part of the volumes published in succession at Cambridge University Press. They were the first volume "Introduction" (1954), the second volume "The Thinking History of Science (1956), the third volume "Mathematics, Heaven and Earth " (1959), the fourth volume "Physics and the Related Technology", with three fascicles. The first fascicle had a detailed discussion on the development in China of basis acoustics, optics and magnetic of the physics (1962), written by Joseph Needham and Kenneth Robinson. Second fascicle discussed the development history of the traditional mechanical engineering in China, probed into the development and application in the machine of animal, hydropower and wind power, and discussed the aviation in prehistoric times, the development of water transport mechanical clock in six hundred years(1961), cooperated and finished by Joseph Needham and Wang Ling. The third fascicle was about the civil engineering, hydraulic engineering, architecture, and sea and ocean voyage technology in ancient China (1971), written by Joseph Needham and Lu Guizhen, who was Needham's Chinese teacher and the first Chinese who inspired Needham's interest in China, later she became Needham's second wife. Because Wang Ling went to Australia, the following rolls were completed by Joseph Needham and Lu Guizhen and other scholars.

Joseph Needham had an evaluation to Wang Ling, "if there was not such a partner's friendship, even if the book could be published, it also would be put off for a long time, and it may appear even more mistakes than we worried about the actual now." "His outstanding training in the Chinese history research, in our daily discussion, always played a big role. Secondly, the Chinese documents of this book translated into English for the first time, eight or nine of the English draft was his translation, and then we two would discuss in detail with checking, often after many times of changes just finalized. Others' translation, we two must check in the original book of Chinese before adopting. Mr. Wang Ling also spent a lot of time to search and browse all kinds of materials we thought it useful at first, often from such inquiry and he found out some material, these material we would carefully review from the point view of the history of science and then determined the value of them. He was responsible for a lot of trivial details of library work, and all kinds of index and cataloging work," ("The Science and Civilization in China, the introduction of the first chapter Volume 1").

The publication of "The Science and Civilization in China" caused vibration in the world. But the huge research and writing of the work was in the arduous conditions. Just think if there was no Needham's visit to Lizhuang, not to gather a large number of raw data from such Chinese scholars who had a thorough knowledge of both western and traditional Chinese, and who worked at Lizhuang at that time, as Fu Sinian, Dong Zuobin etc, if he did not meet Wang Ling, the publication of "The Science and Civilization in China "would be another unknown way. For living, Wang Ling left from Cambridge to Australia teaching in 1957, but they did not interrupt the cooperation together to research and writing of the "The Science and Civilization in China". They paid a lifetime of energy for this.

In August 1988, on the fifth international conference on the science history of China, the Chinese Association of America for commending the merit of Wang Ling, Lu Guizhen assisting Needham for the compilation of "Science and Civilization in China", awarded each of the three people "bonus for the public". Since 1982, international conferences on science history of China were held six sessions in some countries and regions such as the United States, Britain, Australia, Belgium, Hong Kong and the mainland of China. Taking a national science and technology as the theme and holding international conferences on a regular time, so far there is only China.

III. JOHN KING FAIRBANK AND LIANG SICHENG COUPLE

John King Fairbank (1907-1991), a lifelong professor at Harvard University, the famous historian, the most prestigious observer of Chinese problem in America, a leading authority in the research field of the modern history of China, "number one China hand", creator of East Asia Research Center, Harvard. During

his lifetime he held many important positions such as former vice chairman of the American Association for the Far East, chairman of Asian Association, chairman of the History Association, chairman of East Asia Research Council etc. He was also a government employee of the United States, a community leader and a policy adviser. He researched problem of China for 50 years, from his entering into the Oxford until his death in 1991, most of his works discussed problems in China.

Due to the early study in China, and during the Anti-Japanese War period serving there for diplomatic work, no matter political and learning fields, Fairbank got to know a lot of Chinese friends. But it dealt with the best friends, only Liang Sicheng and Lin Huiyin couple. Their friendship was for life, until in his old age to write "Memoir of John King Fairbank ", he also mentioned in the book that the couple was "the most intimate friends of mine in China or in other places." The Chinese names of his and his wife's were given by Liang Sicheng.

At the beginning of a new arrival in China in 1932, in addition to learning Chinese in Beijing, Fairbank also study in Tsinghua University following Mr. Jiang Tingfu with modern Chinese history. It happened that he rented a room in the north Zongbu alley near Liang's house, thus they got to know each other. In a period the couple was frequent visitors in Liang's house. They often had dinners together, drinking tea and chatting. They were talking about literature, philosophy, aesthetics, construction and other topic. Sometimes they talked about the old poetry and the new poetry of China. Sometimes they would compare poems of English poets John Keats and Alfred Tennyson with poems of American poet Vachel Lindsay, occasionally referred to Harvard square, artists of New York and the exhibition, and the architect Frank Lloyd Wright, Burgs campus of Cambridge, ancient Greek philosopher Plato, Italy medieval theologians academics philosopher Thomas Aquinas, etc. The atmosphere could be imagined. No wonder in dozens of years later, Fairbank also recalled it with relish, thinking Liang couple was "two Chinese combined Chinese traditional cultures with Anglo Saxon culture." And admitted the great influence of the Chinese to them, among them "Liang couple" played an important role."

Liang Sicheng (1901-1972), the son of thinker and social activist Liang Qichao in the late Qing dynasty, was an architect and educator. In his lifelong career he devoted himself to architectural research of ancient China and education. He is one of the 36 academicians in the poetry book "The First Town of China". His wife lady Lin Huiyin (1904-1955) was called a talented woman of her time, who participated in the design of the national emblem of the People's Republic of China. She left the main work is the famous poem "You are the April Day of the World." In order to study the national characteristics of Chinese traditional architecture, Liang couple decided to go to Wutai Mountain in Shanxi

Province in the autumn of 1934, for a study trip. Fairbank couple was glad to be invited, accompanying with Liang and Lin.

Along the sightseeing, visiting historical sites, sometimes they were measuring, and sometimes they were drawing. Meeting garrison in temples, they had to negotiate with them, then to enter for a visit. Life, though hard, they felt fun. A friend in need is a friend indeed. Although it had a lot of difficult predicament, that took a big step of the friendship between them. Memorizing the past Fairbank wrote: "The adventure on the empty road made the four of us in the unbearable environment, regardless of you and me, regardless of subject-object, we were still the most intimate friends".

Shortly after they were back from travel, Fairbank couple left Beijing. Friends parted, having a reluctant taste in the heart. Later Fairbank wrote in the memoir: "saying goodbye to Chinese friends like Liang couple was extremely pain and unforgettable. We exchanging views, we also tried our best to help each other."

Being back to their home country, Fairbank taught in Harvard University, and gradually became a well-known professor of Chinese modern history and an expert for Chinese problem. Liang Sicheng and Lin Huiyin continued to the research of China architectural history. In 1937, when they were excited to have found a huge tomb construction of Tang dynasty, the Lugou Bridge Incident broke out. Since then they had to leave from Beijing, moving everywhere, finally they turned to locate at Lizhuang of Yibin. They set Society for the Study of Chinese Architecture at Yueliangtian of Lizhuang, a small farm courtyard. Where they lived for six years, continued to the research work of architectural history, and completed the previous work of "Chinese History of Architecture" and "The Image Architecture History of China" in English.

It was after Pearl Harbor Event the Fairbank couple came to China again. The United States aided and contacted with China. Fairbank was assigned to work in the news agency of the United States in China, and on September 25, 1942 from Kunming to Chongqing. Though very busy with work, Fairbank still missed the two Chinese friends. When he got the news of the couple, he immediately decided to spare time to see them on November 10.

There, he saw Liang family with the institute share a same farm yard, having simple and poor life, almost like the general farmers. The well water, oil lamps, in addition to an old phonograph and a few pieces of old records there was no other modern things in the house. Later John Fairbank in his "Memoirs in China" recalled the scene in Lizhuang to see Liang couple with deep feeling: "Lin Huiyin was very angular... in the evening at five and a half the candles were lit up. No phone, only a phonograph and a few pieces of Beethoven, Mozart's music records, a thermos bottle

and no coffee, there were many sweaters but most didn't fit. There were bed sheets but lack of soap for washing, pens and pencils but no paper for writing. Newspapers were out of date. ...I was deeply moved by the indomitable spirit of my friends who continued to engage in academic research. In my idea, if Americans in this situation, maybe they throw away books to improve life early. "Although Lin Huiyin was suffering from lung disease, but the couple declined Fairbank to aid Lin Huiyin to America for ill treatment and work. Liang Sicheng said," my country is in a disaster, I can't leave from her. If I must die under bayonet and bombs, I would die on the land of my motherland."

Freedman signed, "I have already under-stood, your career is in China, the generation intellectuals of you are plants that can't be transplanted." (Gan Jiahe, 2004:23)

John Fairbank stayed in Lizhuang about a week. After he returned to Chongqing, Liang couple once went for a visit, after that they lived far apart. When Fairbank couple again had a journey in China in 1972, they got the news that Lin Huiyin died early in 1956, and Liang Sicheng also just died a few months before they arrived in Beijing. From now on and for ever they would never see each other again, which made the two American friends increase a lot of sadness. In December 2010, "Lin Huiyin and Liang Sicheng" written by Fairbank's wife Wilma Fairbank (1909-2002) was officially published by Chinese Law Press.

IV. Professor Stubel from Germany and Professor Weit from Poland

During the Anti-Japanese War period, not only the China's academicians, more foreign scholars also "settled" in Lizhuang, such as Indian visiting scholars, foreign professors of Tongji University etc.

In August 1945 when the news of Japan's surrender reached this border town Lizhuang, people's injustice which had been suppressed for eight years was released. They rushed to the street joyfully; the senior students of Tongji University took out all the money they could find in their boxes to buy a few baskets of peanuts, offering any people passing by. Professor Stubel of medical school was also in the crowd. He was invited to Shanghai Tongji University since 1924, being a professor of physiology, director of physiological study center. He was also a cultural anthropologist. Now he already did as the Romans did. When World War II started, he published on the newspaper of China denounced the German fascist aggression war, therefore he was abused by the dominated fascist government, and was not allowed to return to his motherland. He was nearly sixty years old, following Tongji University to move to Kunming and then to Lizhuang, together with the teachers and students from China with a hard life. At this time he dressed a

Chinese garment and shoes, upright white hair, a prominent nose on his white face, deep blue eyes, typical alien in people's eyes. For eight years with Tongji University from place to place, perhaps he forgot the taste of milk, bread and fried steak. But this night, he must think of the accordion sound around the Rhine River. Hitler and his Nazi failed, war sinners also put his motherland and people into the abyss of suffering. China, for which he served, gained the victory, with colleagues and students he enjoyed the joy of victory. Perhaps at the moment he thought of his colleague, professor Weit from Poland, who left his soul at Lizhuang forever. Professor Weit, we are unable to research which year he came to China. After the outbreak of World War II, most of the German professors worked in Shanghai Tongji University partially returned to their country. Professor Weit, because of his Jewish lineage, with Nazi Germany publicly excluding Jews, also couldn't go back to Europe. With Tongji University was his inevitable choice (Li Lezeng, 2002). Traveled to Lizhuang, Weit had been depressed. His country was ravaged in the war, he had five or six children in Poland, while in Shanghai he sent money home every month. The war escalated, shortly after they arrived at Lizhuang, he couldn't get any news about his country-folks and his family, currency devaluation again. At that time he was about fifty teaching steel structure in Tongji Engineering School, and also teaching "projection geometry". Someone said that he starved to death in Lizhuang, but the author thinks that he couldn't see any hope, and he died of depression and sick. According to the canteen cook of Lizhuang District Office Chen Shaorong's memorizing: I was Lizhuang hotel at that time. There was a tall, shiny-haired, long-nose foreigner. All called him Mr. Weit. He came in, civilized crank on one side, right hand a clap on his belly, we knew that he wanted to eat braised pig's knuckle in soy sauce. If he put one hand said "fish, fish…", we knew that he wanted to eat fish. ...At the beginning he came in two or three days a time, then fewer and fewer. In the year of the Anti-Japanese War finished he died in Lizhuang. It was said that he starved to death. Before the "Cultural Revolution", his grave could be found on the Wutong Lap of the Tianjing Hill. (Dai Jun 2004:301)

Both of Stubel and Weit couldn't be back to their hometown and stayed in China because of the war. However, Stubel, together with teachers and students of Tongji University, finally to the end of the war, saw the surrender of fascists. He also had the hope of going home. Weit left his soul at exotic land forever. One of Weit's students, a retired senior engineer of Sichuan Reserve Bureau old Liao Shunjiang said excitedly, "Tongji should not forget Weit. On his birth day or the death day of his, in the days of Tongji University anniversary, people should say a few words, or write a few lines of words for him. The chief editor of the poetry book "The First Town of China", professor He Zhili also

suggested many times to Lizhuang and relevant departments of Yibin City: Lizhuang should not forget Weit. His tomb should be rebuilt on the Tianjing Hill, a tombstone should be set solemnly. That would increase the emotions and thoughts of the tourists, and let people remember the war of resistance against Japan in that period of history, and at the same time, never forget the international friends who helped China selflessly during the war time.

V. CONCLUSION

Lizhuang, such a border town, in that particular time, with her broad mind, most time accepted more than twelve thousand external population. At the time the local population of Lizhuang was less than ten thousand. On the problem of Tongji University migrating to Lizhuang, the squires of Lizhuang were magnanimous," Lizhuang people welcome Tongji University to migrate here, the local would supply all things you need", the sixteen words telegram giving an echo sound. More than half a century have passed, this enlightened and patriotic enthusiasm of Lizhuang people was still widely spread by words of mouths.

Lizhuang of China played an indelible role during the Anti-Japanese War. It also gave a peculiar contribution in the field of cross-cultural communication. In addition to a large number of international friends in Lizhuang working and living, some Lizhuang native people went out after the victory of the Anti-Japanese War, such as Luo Nangai's daughter Luo Xiaoqu who married Lu Qinli, Zhang Jingyun married Yang Zhijiu, Zhang Yanyun married Wang Zhixiong, and Zhang Suxuan married Li Guangtao etc. These daughters of Lizhuang along with their husbands who worked in the History and Language Institute of the Academia Sinica went to Taiwan, later they lived in America or Europe. They also brought Lizhuang's local culture to the world, so they are the messengers of cross-cultural communication. There is no doubt, during the period of Anti-Japanese War Lizhuang had an indelible role in the field of cross-cultural communication; Lizhuang of China should leave a brand on the history of world anti-fascist war.

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The Integration of Knowledge in Islam: Concept and Challenges

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Abstract - Integration is an approach/process which can be used in the educational sector to create a madani generation of multidisciplinary knowledge. Integration is defined as a merger between two or several races (factors, sectors etc) as a union or consolidation. The Muslims are obligated to master various forms of knowledge beginning with the Islamic traditional knowledge of faith (akidah), syariah and morals (akhlak). The understanding of the Islamic knowledge together with that of the modern world's can lead to the emergence of new modern knowledge in line with Islamic requirements. Islam never forbids the Muslims to learn foreign knowledge, in fact it is highly recommended. This paper hopes to highlight the concept of integration of knowledge from Islamic perspectives and the challenges that need to be addressed to make it a reality for the society. The application of western knowledge leads to the spread of secularinfluence in the educational system of a nation, which in turn leads to the gradual loss of Islamic identity of the society. Therefore, the approach to the integration of Islamic knowledge and that of the West needs to be seen as an alternative for the society in leading their everyday lives based on the true teachings of Islam.

Keywords : integration, knowledge, islam and the west.

GJHSS-G Classification : FOR Code: 970122

THE INTEGRATION OF KNOWLEDGE IN ISLAMCONCEPT AND CHALLENGES

Strictly as per the compliance and regulations of:

The Integration of Knowledge in Islam: Concept and Challenges

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Abstract - Integration is an approach/process which can be used in the educational sector to create a *madani* generation of multidisciplinary knowledge. Integration is defined as a merger between two or several races (factors, sectors etc) as a union or consolidation. The Muslims are obligated to master various forms of knowledge beginning with the Islamic traditional knowledge of faith (*akidah*), *syariah* and morals (*akhlak*). The understanding of the Islamic knowledge together with that of the modern world's can lead to the emergence of new modern knowledge in line with Islamic requirements. Islam never forbids the Muslims to learn foreign knowledge, in fact it is highly recommended. This paper hopes to highlight the concept of integration of knowledge from Islamic perspectives and the challenges that need to be addressed to make it a reality for the society. The application of western knowledge leads to the spread of secularinfluence in the educational system of a nation, which in turn leads to the gradual loss of Islamic identity of the society. Therefore, the approach to the integration of Islamic knowledge and that of the West needs to be seen as an alternative for the society in leading their everyday lives based on the true teachings of Islam.

Keywords : integration, knowledge, islam and the west.

I. Introduction

As history has it, the knowledge of Islamic Studies was a traditional form of knowledge in Islamic civilization and was taught at various levels of learning process, namely hut schools, *madrasah* and religious schools. Meanwhile, the aristocrats, rulers and the wealthy people underwent formal education in Islamic Studies taught in the palace (Abdul Monir Yaacob, 2003). Nowadays, the interest among students towards Islamic Studies is undeniable. This is evident from the increase of demand in this field of studies each year from the school level to the higher institution of learning. This positive response from both parents and students is brought about by the acceptance of the society towards the significance and the encouraging future prospects of this field of knowledge. The establishments of administrative institutions and Islamic organizations have opened up employment opportunities for Islamic Studies graduates since the prospective employers and employment sectors now realize the importance of having Islamic knowledge background among the employees. Hence, the government effort and policy to implement Islamic Studies program have given a positive impact to uphold Islam in whatever forms of employment (Marzuki Haji Mahmood, 2003).

II. The Concept of Knowledge Integration

Kamus Dewan (2005) defines integration as a merger between two or several entities to form unions or consolidations. Muhammad Solikin (2008) and Muhammad Muda (2008) explain the concept of integration with the corpus of knowledge today by highlighting that the integration of knowledge and religion refers to the integration of knowledge and Islam as a unit. Muhammad Muda (2008) cites examples from programs at Academy of Islamic Studies Universiti Malaya (APIUM) which currently integrate Islamic Studies and modern studies such as management, economics and computer science. In the past, researches conducted on the integration of Islamic Studies focused on the history, the development of Islamic-based public institution of higher learning and the current reality of Islamic Studies in the era of globalization.

Muhammad Muda (2008) states that Universiti Kebangsaan Malaysia (UKM) through its Faculty of Islamic Studies offers not only Islamic Studies programs but also integrate those programs with other fields of studies such as economics and ICT. These integrations allow students to learn Islamic Studies and modern studies collectively. Wan Suhaimi Wan Abdullah & Mohd Fauzi Hamat (2008) focus on the history and current development of Islamic Studies at Academy of Islamic Studies Universiti Malaya (APIUM). At present, APIUM

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offers programs that integrate Islamic Studies and the sciences at foundation level at APIUM Nilam Puri, Kelantan. From here, the integration of Islamic Studies and Bachelor degree in Applied Science leads to nine programs of studies with majors in Science and Environmental Management, Information Technology, Biochemistry, Biotechnology, Ecology & Biodiversity, Genetic & Molecular Biology, Microbiology, Biohealth Science and Bioinformatics. In 2007, APIUM produced its first graduates of 39 who completed their studies in Bachelor degree in Applied Science and Islamic Studies (UM, 2007). This proves that Universiti Malaya is committed in producing quality graduates who are skilled in multidisciplinary knowledge.

Abdul Manam bin Mohamad & Kamarudin Salleh (2008) debate on Islamic Studies at KUSZA (now known as UniSZA) from the historical view and the programs offered since its establishment. One of the objectives of KUSZA's establishment is to create Islamic-based professionals and semi-professionals. Therefore, based on this objective, it is clear that KUSZA has set the integration of Islamic Studies and modern studies as a target to be achieved in developing Islamic society. Among the integration programs offered are Diploma in Islamic Studies and Information Technology, Bachelor degree in Social Science (Anthropology and *Dakwah*) and Bachelor degree in Islamic Studies (*Usuluddin* and Counseling).

Ajmain@Jimaain Safar & Ramli Awang (2008) highlights the history of Islamic Studies at Universiti Teknologi Malaysia (UTM). UTM through its Centre of Islamic Studies and Social Development (PPIPS) has set that one of the objectives of PPIPS's establishment is to produce professional manpower who understands Islam in various sectors such as education, science management and technology. This objective is appropriate and consistent with the philosophy of the university and the philosophy of education for the nation. Thus, to achieve the objective, UTM has offeredseveral integration programs between Islamic Studies and other fields such as diploma courses and Bachelor degree in Science and Education (Islamic Studies). In these programs, PPIPS and the Education Faculty of UTM have set two major objectives, namely:

i. Graduates are capable of completing tasks in Islamic Studies and teaching profession, skillful in applying information technology as well as possess generic skills to complement the role of a teacher with good morals, creative, innovative and effective in education career.

ii. Graduates are capable of disseminating and integrating Islamic knowledge and ready to make positive changes in the field of learning and teaching and pursue independent studies in enhancing knowledge and acquiring new skills in Islamic Studies. Therefore, UTM is seen to have

successfully produced graduates from the integration of the application of knowledge in science and technology with Islamic knowledge in one educational program (Ajmain@Jimaain Safar & Ramli Awang, 2008).

Statements by Muhamad Muda (2008), Wan Suhaimi & Mohd Fauzi Hamat (2008), Abdul Manam Bin Mohamad & Kamarudin Salleh (2008) and Ajmain@Jamaain Safar & Ramli Awang (2008) are strongly supported by Abdul Shukor Haji Husin (2008) and Marzuki Haji Mahmood (2003). They state that Islamic Studies now need to be more open in the exploration of knowledge not only concentrating solely on the knowledge of Islamic Studies but need to also highlight new and modern knowledge such as biotechnology, space exploration, economics & *muamalat*, finance & social science, leadership & management, science & technology, information & information technology, architecture & engineering etc. As such, Muslims need to grab this opportunity in order to develop the society and promote the socioeconomic status and customs comparable to that of the western society.

Several researches have been carried out by overseas scholars pertaining to the integration of knowledge particularly Islamic Studies. Among them are Huzni Thoyyar (t.t) and Mohamad Solikin (2008). These two scholars raise the concept of knowledge integration in general and its relevance to Islamic Studies. Huzni Thoyyar (t.t) highlights the knowledge integration models and the capacity to develop Islamic knowledge on the right path. He further states that there are several factors that trigger the integration of knowledge particularly Islamic Studies. First, the history of science and religion. Second, the strong pressure from scholars who oppose the freedom of science. Third, the crisis that occurs from science and technology. Fourth, Muslims fall behind in science and technology. The abovementioned factors lead to the emergence of several knowledge integration models:

i. IFIAS Model
ii. ASASI Model
iii. Islamic Worldview Model
iv. Structure of Islamic Knowledge Model
v. Bucaillisme Model
vi. Knowledge Integration based on Classical Philosophy Model
vii. Knowledge Integration based on *Tasawuf* Model
viii. Knowledge Integration based on *Fiqh* Model
ix. Ijmali Group Model
x. Aligargh Group Model

Therefore, Huzni Thoyyar (t.t) in his research deduces that there are only ten (10) knowledge integration models that merge Islamic Studies and general knowledge.

Mohamad Solikin (2008) discusses the concept of knowledge integration and religion according to Ismail Raji Al-Faruqi dan Kuntowijoyo. In his study, he compares the concept of knowledge integration and religion (Islamic Studies) involving the thoughts of two prominent Islamic figures, Ismail Raji Al-Faruqi and Indonesian intellectual Kuntowijoyo. The relationship between knowledge and religion has created some changes either in integration or secularism. Integration involves the process of reuniting knowledge and Islam. Separating these two elements may lead to secularism which can have disastrous effects on Islamic civilization. The fundamental concept proposed by Mohamad Solikin (2008) is the integration of modern/general knowledge and religion referring to the union of knowledge and Islam that are never again separated. This general observation is based on the comparison made on the thoughts of the two selected prominent figures.

III. The Integration of Islamic Knowledge and the West

Rasid Muhamad (2010) states that, Islam is a system of life that includes three patterns of human relationships: relationships between man and God, man and man, and man and other creatures. According to him, in order to recognize the three patterns of relationships, three basic axes were formed in Islam as the core, namely faith, worship and morality. As such, it can be summarized that knowledge of Islamic Studies is based on the three basic patterns mentioned earlier. Kamarul Azmi Jasmi & Ab. Halim Tamuri (2011) state that there are several other names that are being used to refer to the knowledge of Islamic faith such as knowledge of *tawheed*, *usuluddin*, *al-Fiqh al-Akbar* and *kalam*. The knowledge of faith specifically discusses the Divine faith, prophetic and apolistic work that need to be believed as true. The aspect of Divine faith encompasses debates on the nature of Allah s.w.t. Meanwhile the prophetic aspects and apolistic work are related to the nature of task characteristics and revelation of scriptures revealed to them. Both these aspects include beliefs that must be believed by all Muslims alike. This description is amplified by Mohd. Radhi Ibrahim (2006) and Rasid Muhamad (2010) stating that the matter is the entire basis for faith and beliefs in our relationship with one another. Kamrul Shukri Mohd Teh (2008) feels that the field of debate of *tawheed*/faith coversfour areas, namely *uluhiyyah, nubuwwah, sam'yyat* and *mumkinat*. Faith then is the core central and specific beliefs of all Muslims.

According to Mohd Asri Abdullah et al. (2009), *Syariah* is the knowledge of all the commands of Allah in the form of laws or regulationswhich are comprehensive and wide within its purview. The *Syariah* knowledge is also associated with other names such as *fikah* or *fiqh*, the statutory law, *nas* or basis of *Syariah* law and *Syariah masadir* or resources.The debate revolves around the knowledge about *maqasid Syariah* or Islamic *Syariah* purposes. Wan Mohd Nasir Wan Abd wahab (2011) divides *maqasid Syariah* into three types, namely *dharuriyyat, hajiyat* and *tahsiniyat*. AB. Latif (2003) explains that some of the purposes of the Islamic *Syariah* are to uphold justice, coordinate human life, educate individuals, form the purposes and goals of the community, so that the moral rights, set rules and justice can take care of the well-being of human beings.

Rasid Muhamad (2010) states that moral debate usually focuses on two main issues, namely, the properties of praise (*mahmudah*) and reprehensible properties (*mazmumah*). This description is supported by Mohd Asri Abdullah et al. (2009) stating that human acts can be generally divided into two categories: good behaviour and bad behaviour. Haron Din et al. (2010) states that all the teachings and practices of Islam begin with the good or bad moral character. *Syariah* teachings form positive minds and morals while the inhibitions distance people from negative values and morals. Therefore, knowledge of Islamic Studies covers a very wide range of subject areas and is the foundation for the Muslims' lives. Thus, new knowledge arising from Al-Quran and Al-Sunni should be explored by the community in order to strengthen the faith/*tawheed*, daily worship and morality, leading to real perfection.

The Western world has been invading the Islamic world through modern sciences expressed through certain channels. These modern sciences that exclude the spiritual norms have led to the loss of direction among Muslims who are devoted solely to Allah SWT (Che Haslina Abdullah, 2004). Science revolution in the West was originally planned by the Jews for two centuries either by individuals or organizations. This revolution has led to positive developments in the knowledge of science which benefit mankind. However, due to the influence of secularism in this revolution, the negative impact is seen to be greater than the positive impact which causes the thinking of human mind based on religion, in particular Islam. The agenda of the Jewish people to destroy human civilization based on religion and spirituality were realized through this revolution. As a result, some Islamic scholars who are aware of these problems feel that the best way to overcome it is to look at science from the Islamic perspective in order to return man to his *fitrah* (Abdul Rahman, 2003). As such, every Muslim must be careful in the appreciation of science and must instill confidence in his mind that the truth and the reality come only from the verses revealed by Allah (Zainal Kifli b. Abdul Razak, 2005).

IV. Present Challenges of Knowledge Integration

According to Muhamad Muda (2008), Islamic Education in Malaysia has to go through various challenges in order to uphold Islam in the world arena. A variety of accusations and ridicule about Islam have caused many Muslims to be influenced by Western propaganda which leads them to slowly straying away from the teachings of Islam. His article focuses on the four key challenges and the realities of Islamic Education in Malaysia today.

The first challenge involves the Government or the Ministry of Education (MOE) to coordinate the existing school curriculum so that it is in line with the requirements of the universities. Candidates with Islamic Studies background have limited choices of programs offered at the universities. This is because the subjects taken at school levels are incompatible with these programs. As a result, these students do not have the opportunities to take up other disciplines such as Science and Technology, only programs pertaining to Islamic Studies are opened to them. Therefore, those responsible in designing the school education system need to look into this and take measures and initiatives to review the current syllabus so that it meets the needs of the programs offered at the higher institution of learning. This recommendation is in line with Abdul Shukor Hj. Husin's (2008) statement that appreciation of knowledge should not be limited to mere Islamic studies but also serious emphasis on modern sciences and technology.

The second challenge involves graduates competing for employment opportunities. In this era of globalization, graduates are required to be well-versed in a variety of disciplines and skills to attract employers to offer them jobs. Islamic Studies graduates have been seen to have basic ethics, values and integrity of Islamic knowledge, but current employment sectors require other additional skills such as interpersonal skills (communication skills) and information and communication technology (ICT) in their job applications. Therefore, there is a need to integrate all these additional skills at higher levels so that the skills needed for employment are met. Muhamad Muda (2008) gives four suggestions to help overcome this challenge:

i. Subjects which are professional in nature should be incorporated into the existing curriculum.
ii. Graduates who are well-versed in both disciplines of Islamic Studies and professional knowledge must be increased to meet the needs of the employment sector.
iii. Strong support should be given to those who strive to seek improvement in the quality of Islamic Studies.

iv. Provide adequate time for the process of improvement of the Islamic Studies curriculum.

In this regard, the recommendations above are likely to have a positive impact on graduates in facing challenges after graduating.

The next challenge is to design a holistic integrated curriculum encompassing Islamic studies as well as other fields of modern knowledge. Abdul Shukor Hj. Husin (2008) says that it is time for the Muslims to master not only knowledge of Islamic tradition but also that of modern sciences. Its purpose is to help Muslims achieve success in life and rebuild the weak Muslim structure in order to create a new generation of knowledgeable and skilled Muslims. It is time for Islamic Studies courses be integrated with other professional courses such as accounting, engineering, medicine, counseling and others. This recommendation is in line with the National Higher Education Strategic Planning (NHESP), launched by the Prime Minister on 27 August 2007. The concept of human capital embodied in the PSPTN, is also in line with the philosophy of National Education in the Education Act 1996. This involves developing individual's potential in a holistic and comprehensive manner to produce a balanced population who is intellectually, spiritually, emotionally and physically stable based on trust and adherence to God (Zaini Ujang, 2009).

The latest challenge is to put Islamic education in parallel position with religion and industry. Islamic education is on eelement that can push Malaysia to achieve Vision 2020. One of the visions contained in the vision 2020 is to create a labor force that is not only knowledge able and skillful but also with high morals and ethical standards. In today's world, the industrial sectors provide enough jobs for the population.

Industries play a very important role in forming a better, more comfortable and competitive society. To be really comfortable, religious factors must be incorporated in the daily work practices. At present, food production is an important issue, particularly in Islamic countries in order to over come the problems of malnutrition and hunger. With out adequate nutrition, the Muslim community cannot lead a healthy and comfortable life. Technological applications such as bio-food techno-logy used to solve the problem of food shortages is seen to have a positive impact on society. The technology used must however, be guided so as not to endanger the users. Thus, knowledge of the Islamic religion applied in industrial sectors leads to cautious manipulation of technology.

V. Conclusion

The Integration of Islamic knowledge and the West has a positive impact leading to a better life, in line with the rapid development of today's world. Muslim community can apply the knowledge of science and

technology together with other foreign knowledge as required by Islamic lawto attaina civilizedstandard of livingin terms of morality, ethicsandhuman capital and in turnto achieve*mardhatillah*.

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Perceptual Learning Styles of Medical Sciences Students

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Abstract - This study, conducted in Iran, reports on research into perceptual learning style of medical sciences students generally and that of Students of Medicine (SM) and Anesthesiology (SA) in particular. Results revealed that the students' preferred learning styles were tactile and kinesthetic followed by visual and auditory but individual and group preferences were at the lowest. Females of the two fields were stronger than males in 5 domains. Female SM were better in all 6 areas of learning compared to female SA. Male SA, compared to their female peers, however, were better motivated and thus more oriented toward their field and future profession. The findings can have some implications for curriculum development, material development, teacher training courses, and class management. Moreover, by having an awareness of our students' learning styles, classes can be placed into homogeneous groups and expose each to their most preferred learning orientation and even work on and improve the learners' least preferred styles from the other end of the continuum.

Keywords : *perceptual learning style, tactile, kinesthetic, auditory, visual.*

GJHSS-G Classification : *FOR Code: 970111, 93019*

PERCEPTUAL LEARNING STYLES OF MEDICAL SCIENCES STUDENTS

Strictly as per the compliance and regulations of:

Perceptual Learning Styles of Medical Sciences Students

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& Frimah Shamsi [¥]

Abstract - This study, conducted in Iran, reports on research into perceptual learning style of medical sciences students generally and that of Students of Medicine (SM) and Anesthesiology (SA) in particular. Results revealed that the students' preferred learning styles were *tactile* and *kinesthetic* followed by *visual* and *auditory* but *individual* and *group* preferences were at the lowest. Females of the two fields were stronger than males in 5 domains. Female SM were better in all 6 areas of learning compared to female SA. Male SA, compared to their female peers, however, were better motivated and thus more oriented toward their field and future profession. The findings can have some implications for curriculum development, material development, teacher training courses, and class management. Moreover, by having an awareness of our students' learning styles, classes can be placed into homogeneous groups and expose each to their most preferred learning orientation and even work on and improve the learners' least preferred styles from the other end of the continuum.

Keywords : perceptual learning style, tactile, kinesthetic, auditory, visual.

I. Introduction

Being replete with and idealized in terms of administrative and pedagogical perspectives, contemporary practices in education have in many occasions been plagued by lack of attention to learners' learning orientation and thus lack of adoption of an anticipated and felicitous approach in the classes. Moreover, language awareness has taken several forms of conceptualization by the educationalists and methodologists; in this regard, awareness, noticing, and attention to particular properties of language have come to enjoy some relevance in language learning and teaching. In its specific concept, language awareness may refer to a form of consciousness-raising whereby learners' attention is drawn to those aspects of language on which they possibly mostly linger. This may virtually arise, at least in some settings, some doubt on using this technique as it can somehow remind us the so-called outlawed, notorious, incongruous aspects of grammar translation method and other prescriptivist approaches that suggest learners' preprogrammed syllabi of what to do and not to do in an L2 learning context (Lier, 2001). This is actually not the case if we however, appear to distinguish, as Widdowson rightly (1990) does, between a natural milieu for language learning and what really happens within the confines of a second language classroom. To Widdowson, replication in the classroom of the conditions for natural communicative use of language is mistaken for two critical reasons: "First to do so is to deny the whole purpose of pedagogy, which is to contrive economical and more effective means for language learner …. Second, natural language use typically deflects attention from language itself and presupposes knowledge of the language system as a basic resource which learners have, by definition, not yet acquired." In this regard, Brown (2007) points to the facilitating role of the teachers in L2 settings and sets forth ways on how to increment learners' awareness so as to depart from the near-naturalness, as some assert, of the communicative situations. In a chapter entitled, "The Post Method Era: toward informed approaches, " Brown (ibid) introduces his own terminology for autonomy of the learners in L2 context as 'strategic investment' and goes on to explain that "students are given opportunities to focus on their own learning process through raising awareness of their own *styles of learning* (strengths, weaknesses, preferences) and through the development of appropriate strategies for production and comprehension." Lier (2001) points to three fundamental reasons as sources underscoring language awareness: 1) language awareness movement initiated in the early 1980s in the UK; 2) consciousness-raising, focus on form, and various approaches to explicit teaching and metalinguistic awareness; and 3) critical perspectives on language and discourse. In Widdowson's (1990) viewpoint, a distinction has fundamentally been made in reality between 'authoritarian' and 'authoritative' perspectives of instructional enterprises as the former refers to the superior position taken by the instructors to exert complete dominance and power thereby adopting a prescriptionist surveillance over the proceedings of the class whereas in the latter the teacher acts as a person who is skilled and has special expertise in nearly directing the class through multiple tasks appealing to a large swath of learners; this is to be the goal of most post-method enlighted educational settings.

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a) Learning Styles

To touch upon children and their learning styles as they forge ahead at finding words, O'Grady refers to two analytic and gestalt styles as a continuum along which children swing at different situations without adopting a completely fixed style. Some children, though, are analytically oriented and produce words which are short and easy to learn (for example, Mommy, Daddy, car,) whereas others mostly exhibit tendencies the other way round. "They memorize and produce relatively large chunks of speech (often poorly articulated) that correspond to entire sequences of words in the adult language" (2005).

For adults, learners' preferences in how to come to grips with a language were not usually detected in traditional classroom settings. Learners were typically left on their own to find the root to their success. Today, though, it is asserted that learners demonstrate varying orientations and styles that bring with them to the learning environment the awareness of which is a prerequisite for efficient and appropriate grasp of an L2. (Nunan, 1999; Lightbown and Spada, 2003).

Styles, by definition are "related to personality (such as extroversion, self-esteem, anxiety) or to cognition (such as left/right orientation, ambiguity tolerance, field sensitivity), characterizing the consistent and enduring traits, tendencies or preferences that may differentiate you from another person" (Brown, 2007). Styles have been identified to be more fixed and immutable than strategies which are specific techniques and activities adopted by the learners to deal with a difficult task in a particular learning context. And as Kumaradivelu (2006) points, learners have to identify their learning styles so as to become aware of their strengths and weaknesses as language learners. Also as Scrivener (2011) identifies, picking up signals from students can assist teachers' orientation in squaring their teaching career with most learners' learning traits. As to learning styles, a distinction has often been made, as Oxford (2003) argues, between *sensory preferences* and *personality orientations*. For the former, she refers to 'visual, auditory, kinesthetic (movement oriented), and tactile (touch-oriented)' propensity of learners in learning whereas for the latter she identifies individuals as 'introverted vs. extroverted; intuitive-random vs. a sensing sequential; thinking vs. feeling; and closure-oriented – judging vs. open/perceiving.' Moore et al (2007), however, contend that "the most popular typology of learning styles comes famously from Kolb (1984) who through his research and analysis has divided learners into four key categories according to the following styles: reflectors, activists, theorists, and pragmatics." Ellis (2008) by referring to an extant distinction between learning style and cognitive style, first made by Dörnyei, which to him contributes to resolving a contradiction in literature, states that," cognitive styles are seen as relatively fixed... but learning styles are often seen as mutable, changing according to experience, and potentially trainable." Ellis (ibid) goes on with the concept of field independence/dependence as the instances of cognitive style, initially put forth by general psychology, the first of which captures analytical orientation and association with tests of formal language learning whereas the second, i.e. field dependence, pertains to a global orientation and concern for mostly informal and communicative tests. Leveling some criticism at GEFT (Group Embeded Figures Test), developed by Witkins and his associates (1971) as a measure of field independence/dependence and referring to its inadequacy in determining a proper and acceptable differentiation between these two modes, Ellis refers to a very different approach for measuring cognitive style developed by Riding (1991). For Riding, the distinction has been made in accordance with holistic – analytic learning dimension "distinguish[ing] individuals in terms of whether they preferred to organize information as an integrated whole or as a set of parts making up the whole. This corresponds closely to the FI/FD distinction" (ibid).

A number of researchers have assessed learning styles (eg: Ehrman and Leaver Learning Style, 2003; Perceptual Learning Style Preference Questionnaire, Reid, 1995; Oxford's Style Analysis Survey, 1993; Cohen, Oxford, and Chis' learning style survey, 2001 among others), (cited in Gass and Selinker, 2008). And provided the styles of learning are accommodated, learning conditions and attitude towards learning can be improved. Once the students have identified their own tendencies, they will be given choices from a range of options commensurate with their experience to pave the way for learner-centered classes Cook (1999) has put it rightly saying, "[s]tudents do not like classes in which they sit passively, reading or translating. They do not like classes where the teacher controls everything. They do not like reading English literature much, even when they are literature majors. Thus it is clear that the great majority of university English classes are failing to satisfy learner needs in any way." Therefore, the instructors main responsibility could certainly be creating a favorable learning environment that would zero in on learner-centered approaches emerged from an understanding about learners orientation. Dunn et al (1989) developed a measure of learning style termed Productivity Environmental Preference Survey which identifies learning style in four different areas: environmental, emotional, sociological, and physical stimuli. This questionnaire surveys preferences of the learners in 20 different modalities related to these areas. Some other measures, however, have been specifically designed to investigate language learners (Reid, 1987). The classification by Reid (1987) of learning styles can be regarded as parallel most with what Oxford has argued; she refers to tactile (hands on

activities), kinesthetic (movement oriented), auditory (listening preference), visual (learning by seeing), group (working with others), and individual (learning in person) learning orientations. The present study thereby set out to investigate the dominant perceptual learning style of Iranian medical sciences students. For this purpose, the following research questions were formulated:

1. What types of perceptual learning styles are mostly preferred by Iranian medical sciences students?
2. What types of perceptual learning styles are mostl preferred by Iranian "Students of Medicine" (SM)?
3. What types of perceptual learning styles are mostly preferred by Iranian "Students of Anesthesiology" (SA)?
4. Is there any difference between the learning styles of males and females in terms of their fields of study?

II. Methodology

a) Setting

This study was conducted in the Medical Faculty of Yazd Shahid Sadoughi University of Medical Sciences (SSUMS) in Iran. The English department of this university offers English language courses such as pre-university, general, and EAP courses for all the medical, dentistry, pharmacy, paramedical and nursing disciplines. The English courses are designed to prepare students to excel mainly in reading comprehension skill so as to be able to deal with texts during or even after graduation and thus keep up with new developments in their disciplines.

b) Instrument

In this research, the perceptual learning style (PLS) preference of medical sciences students was assessed using Perceptual Learning-Style Preference Questionnaire (PLSPQ) designed by Joy Reid (1984) which is reported to have a high reliability by peacock (2001).

c) Participants

The participants of the present study were 107 Iranian medical sciences students (out of 108 but one student was eliminated through data cleaning): 78 (72.9%) Students of Medicine (SM), and 29 (27.1%) Students of Anesthesiology (SA). Of all the participants, there were 34 (31.8%) males, and 73(68.3%) females.

III. Design and Procedure

The PLSPQ designed by Reid (1984) is a multi–item questionnaire which assesses learning styles of the students in six different domains: *visual*, *auditory*, *tactile*, *kinesthetic*, *group* and *individual*, and for each learning category there are 5 questions. The reason for applying this questionnaire is multifaceted; it is easy both to administer and to interpret, it is self-scoring, it has easily reportable scales, and it is of high cited and acceptable reliability and validity. Nonetheless the Cronbach alpha of the questionnaire was also determined through a pilot study with the participation of 48 students is Yazd University of Medical Sciences (α =0.73). This questionnaire assesses visual (learning with eyes), auditory (learning with ears), tactile (hands on activities), kinesthetic (physical activities) individual (working alone) and group (cooperation with others) learning preferences through a 5-point Likert scale (5=strongly agree, 4=agree, 3=undecided, 2=disagree, 1=strongly disagree). Anyway after getting assured of the scale's applicability, the participants were asked to fill out the questionnaire. Data were than collected and analyzed through SPSS. Alpha level was set at $\alpha < 0.05$.

IV. Results

Table 1 : Frequency distribution of the participants in the study

Variable		Frequency	Percent
Sex	Male	34	31.8
	Female	73	68.2
	Total	107	100
Field of Study	Students of Medicine	78	72.9
	Students of Anesthesiology	29	27.1
	Total	107	100

Table 2 : Central tendency of learning styles of the participants

Variable	Visual	Tactile	Auditory	Group	Kinesthetic	Individual
mean ± SD	37.32±5.96	38.95±6.03	36.16±7.28	32.99±8.90	37.36±6.35	32.74±8.1
Median	38	40	36	34	38	32
Min	22	20	22	10	16	18
Max	50	50	50	50	50	50
Total	107	107	107	107	107	107

The first table summarizes the frequency distribution of the participants. Table 2 represents mean, median, and standard deviation (SD) related to all the 6 styles of learning in 107 students and, as it is evident, the mostly preferred learning style was tactile (38.95 ± 6.03) followed by kinesthetic (37.36 ± 6.35), and then visual (37.32± 5.95) whereas individual (32.76± 8.1) and group (32.99± 8.90) styles ranked the lowest respectively.

Table 3 : Comparison of mean of the learning styles on the basis of the gender in the study

Variable / Sex	Visual	Tactile	Auditory	Group	Kinesthetic	Individual
Male	36.17 ± 4.98	38.58 ± 5.42	34.17 ± 7.80	29.88 ± 7.62	36.05 ± 5.91	34.94 ± 8.44
Female	37.86 ± 6.32	39.12 ± 6.32	37.12 ± 6.87	34.43 ± 9.1	37.97 ± 6.49	31.72 ± 7.79
P-value	0.174	0.671	0.051	0.013	0.148	0.056

Table 3 indicates mean and SD of the students on the basis of their gender representing that the females (F) rank higher on the 5 domains of visual, tactile, auditory, kinesthetic, and group compared to males (M); the difference, however, is shown to be statistically significant only in group domain (F=34.43 ± 9.1 > M=29.88 ± 7.62, P=0.013). For individual domain, though, males (M=34.94 ± 8.44 > F=31.72 ± 7.79 p=) indicate a greater preference showing a trend toward significance. (p=0.056).

Table 4 : Comparison of mean of the learning styles on the basis the learners' field of study

Variable / Field of Study	Visual	Tactile	Auditory	Group	Kinesthetic	Individual
Students of Medicine	37.41 ± 5.90	39.35 ± 5.83	36.48 ± 7.53	33.05 ± 8.89	38.35 ± 6.04	33.28 ± 8.52
Students of Anesthesiology	37.10 ± 6.22	37.86 ± 6.52	35.37 ± 6.59	32.82 ± 9.07	34.68 ± 6.48	31.31 ± 6.72
P-value	0.814	0.256	0.487	0.909	0.007	0.265

Table 4 details the learning styles of the students pertinent to their field of study revealing that SM are stronger in all of the domains and this strength is statistically significant on kinesthetic style (SM=38.35 ± 6.04>SA=34.68 ± 6.48, P= 0.007).

Table 5 : Comparison of mean of learning styles on the basis of field of study in the males

Variable / Field of Study	Visual	Tactile	Auditory	Group	Kinesthetic	Individual
Students of Medicine	35.78 ± 5.11 n=28	39.28 ± 5.39 n=28	33.92 ± 7.6 n=28	29.28 ± 8.09 n=28	36.50 ± 6.07 n=28	35.78 ± 8.93 n=28
Students of Anesthesiology	$38 \pm 4.1\,9$ n=6	35.33 ± 4.67 n=6	35.33 ± 9.00 n=6	32.66 ± 4.32 n=6	34 ± 5.05 n=6	31.00 ± 4.14 n=6
P-value	0.33	0.106	0.70	0.33	0.35	0.21

The results illustrated in table 5 demonstrates the aforementioned preference of the male students in terms of their field of study. It shows a higher mean score for tactile, kinesthetic, and individual styles among the Students of Medicine (SM) but for other styles (i.e., group, auditory, and visual), Students of Anesthesiology (SA) rank higher. In none of the domains, however, the difference is significant.

Table 6 : Comparison of mean of learning styles on the basis of field of study in the females

Variable / Field of Study	Visual	Tactile	Auditory	Group	Kinesthetic	Individual
Students of Medicine	38.32 ± 6.15 n=50	39.40 ± 6.11 n=50	37.92 ± 7.1 n=50	35.16 ± 8.7 n=50	39.40 ± 5.83 n=50	31.88 ± 8.03 n=50
Students of Anesthesiology	36.86 ± 6.71 n=23	38.52 ± 6.85 n=23	35.39 ± 6.07 n=23	32.86 ± 10.03 n=23	34.86 ± 6.9 n=23	31.39 ± 7.39 n=23
P-value	0.36	0.58	0.146	0.32	0.005	0.80

Table 6 is indicative of the preference of the female SM in all the six learning styles compared to female SA with a significant difference related to kinesthetic style (SM=39.40 ± 5.83, SA=34.86 ± 6.9, P=0.005).

V. Discussion and Conclusion

As the results of the research suggest, tactile and kinesthetic learning styles gained higher mean scores among the students of medical sciences whereas group and individual styles ranked the lowest. In a study by Reid (1987) through which 1300 ESL

students with disparate cultural aspects were investigated, the kinesthetic and tactile learning styles came to be known as the preferred learning styles of the learners respectively thus being somehow consonant with the results of ours.

Mulalic et al (2009) also investigated the perceptual learning style of ESL students in Malaysia. Their results demonstrated kinesthetic as the preferred style of the ESL learners (somehow in line with our study), visual, auditory, and group learning were ranked as minor, but tactile was reported to be the negative preference of the learners which is inconsistent with the results of ours. This can be attributed to the fact that ESL learners are far less concerned in their academic life with hands-on activities compared to medical sciences students.

Seifouri and Zarei's (2011) study on the Iranian EFL students conducted to detect the relationship between their learning styles and multiple intelligences also found that the students strongly relied on kinesthetic capacity followed by auditory style. Perhaps the reason behind auditory style positioning the second stance in their study is that EFL students in Iran are concerned more than medical students in their college life with auditory activities to improve at least their listening abilities; medical sciences students took the fourth stance for this (auditory) style, and perhaps in view of having many practical and laboratory courses, tactile turned out to be the strongest style with these students.

Interestingly enough, as it is evident from their grade point averages, female students of medicine and anesthesiology, compared to males, are much better and stronger in most of the university courses offered to them so this being consistent with their strength in 5 domains (and the significant difference was detected in group domain); males are stronger only in individual learning style with no significant difference.

As to university Entrance-Examination (*Konkour*) grade in Iran, Students of Anesthesiology bear little resemblance to their peers in the field of medicine and always position much lower rank so this being in line with the results of this study that the latter group (SM) turned out to be stronger in all domains and the difference was statistically significant for kinesthetic style. In terms of gender differentiation exactly the same results were obtained with female learners to represent the fact that females are generally stronger in varying learning domains in medical sciences.

That the male students of the two fields struck a balance (individual, kinesthetic, and tactile styles preference with male SM, and visual, auditory and group styles preference with male SA) can be representative of the fact that male SA, compared to females are more enthusiastic about and better motivated by their future profession and regard their job fairly more masculine!; in the interview held randomly with some SA, boys expressed that on the scene in the operating room (and when an anesthesiologist is trying to make a patient unconscious), *girls usually have their hearts in their mouths!*

Reid (ibid), however reported that medicine students preferred auditory learning as a major learning style (one of the two most strong preferences) thus not being consonant with the results of this research.

VI. SUGGESTIONS

The strong tactile learning style preference indicated by most medical sciences students, followed by kinesthetic and visual styles can have implications for curriculum development, material development and teacher training courses. Through burgeoning research with a wealth of students across nations it has been reported that traditional classroom instruction is mostly oriented to the auditory learners (Hodges, 1982 cited in Reid 1987) thereby ignoring a large number of other learners. If however students are placed into homogenous learning groups and are exposed to teaching styles that are consistent with their learning styles, a portion of the problem might certainly be resolved. Moreover, for the rather mutability of the learning styles (Brown, 2007), some longitudinal studies could be conducted to examine the case as well as to investigate the factors that bear on the issue. Very few, if any, researches has also been carried out on the relationship between critical thinking and learning styles as both of them may be developed and altered across the learners. The relation between the nature of the courses offered to the students and their consistency with the learners' learning styles can also be a useful and interesting matter of concern. Specifically detailing the relationship between English languages courses, either general or EAP, and learning styles could also have some relevance to the issue.

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Salishan and North-Caucasian

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Abstract - Sa[lishan] languages are represented in this paper in the following way (data used in this paper are taken from the appropriate dictionaries or published word lists): Tsamosan [Ts]: Upper Chehalis [UP]. Interior Salish [IS]: Thompson River Salish [Th], Shuswap [Sh], Colville-Okanagan [CO], Moses- Columbian [MC], Spokane [Sp], Montana Salish [MS]. Central Salish [CS]: Lushootseed [Ls] (=Puget), Sechelt [Se], Squamish [Sq].

GJHSS-G Classification : *FOR Code: 380201*

SALISHAN AND NORTH-CAUCASIAN

Strictly as per the compliance and regulations of:

Salishan and North-Caucasian

Vitalij Shevoroshkin

I.   INTRODUCTION

Sa[lishan] languages are represented in this paper in the following way (data used in this paper are taken from the appropriate dictionaries or published word lists):
<u>Tsamosan</u> [Ts]: Upper Chehalis [UP].

<u>Interior Salish</u> [IS]: Thompson River Salish [Th], Shuswap [Sh], Colville-Okanagan [CO], Moses-Columbian [MC], Spokane [Sp], Montana Salish [MS].

<u>Central Salish</u> [CS]: Lushootseed [Ls] (=Puget), Sechelt [Se], Squamish [Sq].

<u>Bella Coola (Nuxalk)</u> [BC]/[Nu].

I am also using occasionally North Wakashan [NWk] language data as provided by N.Lincoln and J.C.Rath in their *North Wakashan Comparative Root List* (Ottawa 1980); abbreviations: Haisla = Ha; Heiltsuk = He; Kwakiutl (=Kwakwala) = Kw; Oowekyala = Oo. - Note also: Wakashan = Wk; M = Makah; Nitinat = Ni; Nootka = No.

North Caucasian [NC] languages are cited after *A North Caucasian Etymological Dictionary* by S.Nikolaev and S.Starostin (Asterisk Publishers, Moscow 1994) [NCED], and occasionally also after S.St[arostin]'s papers *Nostratic and Sino-Cacasian* (in *Explorations in Language Macrofamilies*,

Bochum 1989: 42-66) [St. '89] and *On the Hypothesis of a Genetic Connection between the Sino-Tibetan Languages and the Yeniseian and North-Caucasian Languages* (in *Dene-Sino-Caucasian Languages*, ibid. 1991: 12-40) [St. '91]. - Note relevant abbreviations: North-East Caucasian = NEC = EC; N.-West Caucasian = NWC = WC; Sino-Caucasian = SC; Yeniseian = Yen; Sino-Tibetan = ST; Nostratic = N.

Abbreviations of NC daughter languages' designations follow the pattern adopted in NCED; besides, I am provoding abbreviations of designations of some especially important NEC and NWC daughter languages in the text of this paper.

Sa languages show a remarkable uniformity of their sound systems*, making shallow the existing PSa reconstruction and "elevating" archaic languages (which have preserved retracted sounds, and didn't   palatalize *k k' x*) practically to the level of PSa.

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*Sa stops *p t c k k^W q q^W* have glottalized counterparts; this is also valid for *m n r l y w*. - Stops *k k^W q q^W* have also appropriate fricative counterparts *x x^W χ χ^W*; voiced: *γ* (velar?), *ʕ ʕ^W* (either voiced uvulars or pharyngeals). - There are also *ɬ λ' h ʔ*. - On some occasions, Sa voiced consonants *z z' γ ʕ ʕ^W* seem to match NC voiced consonants (see rxx. below).

**PSa had at least three vowels as well as their retracted counterparts: *a ạ i ị u ụ* [These vowels participate in an old ablaut *a/i*; *a/u*, etc.; cf. ablaut in the NC languages; Sa *i* is concidered the stablest vowel]. Historically, retraction indicates a back articulation in the original root. Several consonants have retracted counterparts: *s c l l'* vs *ṣ ç ḷ ḷ'*. Always retracted are *r r'* and *z z'*. Most Sa languages show no retraction; most languages lack consonants *r r' z z'*.

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a)   Ways To Compare Sa (And Wk) Languages with Nc Languages

Both Sa and Wk languages show many very strong genetic ties with NC languages (a relationship which seems much more intimate than that between NC on the one hand, and both Yen and ST on the other)*.

It is totally inappropriate to deny mutual genetic relationship between Sa and Wk just because there exist many borrowings from Wk to Sa, and vice versa. There are many identical, or semi-identical, Wk-Sa word pairs which belong to the the most stable lexicon (1st and 2nd pron.; some body parts definitions, etc.); these root correspondences can not be considered as borrowings, simply because such words do not become subject of borrowings. Such correspondences indicate deep genetic relationship.

This paper deals primarily with Sa - NC cognates; some Sa - Wk, Wk - NC, and Sa - Wk - NC cognate sets are also present.

Sa (and Wk) sounds either match NC sounds directly, or in a way which shows that Sa sounds are "reduced" representations of NC sound combinations (a given Sa sound may represent several sounds of a much larger sound system; original sounds may disappear; original clusters can be reduced to simple consonants, or eliminated in the followin way: *CC > CVC, or *CC > C...C). Relatively frequent metatheses of Sa roots, as compared with NC roots, are similar to frequent metatheses of NC roots (this may be reflected in reconstruction of 2 variants of a given root, or a given NC root may be metathesized in appropriate daughter languages).

There is no sufficient reconstruction of PSa; the existing reconstructions of NWk roots are on many occasions seem to be incorrect. On the other hand, both Sa and Wk languages have clearly preserved many features of the underlying sound system: cf. preservation of *q q' q^W q'^W; x x̣ x^W x̣^W; 1 1' ɬ λ* [Wk only] *ẋ* [Wk only] *ẋ'* (etc.). There are no significant differences between genetically related roots in various Sa (or, for that matter, Wk) languages.

Scholars agree that there were inherited voiced consonants in Sa; they seem to be best preserved IS:Th: *z ʒ ɣ ʕ ʕ^W* (cf. also Wk). The following exx. 1-4 seem to show that Sa voiced consonants may match NC voiced counterparts in genetically related roots/words:

(1) STINGING INSECT: IS:Th *məz·/məze* 'flies'; *məc'·/məc'e* 'bees, hornets, wasps' // NC *miʒẰ* stinging insect. [Alternations of the type *c/z* are typical also for Wk].

(2) LYNX (etc.): PSa *mVɣawʔ* (Kuipers: *(s-)mɣaw(ʔ)* 'feline, coyote') > IS:Th *məɣew'*, Sh *s-mɣewʔ* // NEC *mHarGVwV* 'tom-cat' (> Lezg. *marq:ɬaw* > Ag. *maʁɬaw* / Tsez. *maʁ:ur*, also with *-χ-). [Cf. NWk:He *mauχwa* 'bob-cat'].

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*When comparing languages on a broader scale, - i.e., not just Sa (or Sa-Wk) vs NC, but Sa, Wk, Ath[apascan] (etc.) vs SC (or Yen, or ST, for that matter) vs N (or Kartvelian, for that matter), - one can use SC data even in cases where there are no NC cognates, - for instance (N.Kruglyj-Enke, Moscow 2000 Conference on deep reconstruction):

FIRE, BURN: Sa *p'iẋ(^W)* 'fire, burn' // SC *piHwV* 'heat' (*p < *p̣) // N *p'a/iɣxwV* 'fire'.

In the present paper, such broad comparisons appear very seldom.

(3) WORM: IS:CO *m'aʕ-mlaʔ* (metathesis + partial redupl.?) // NC *mHilaGwV.*

(4) GREASE: IS:Th *miʕ'^W-* (root) // NEC *mǎ́ɦwV*; etc..

The above exx. show that a relatively close genetic relationship between Sa and NC may be seen rather clearly even if we take only one Sa language and compare it to NC. [Naturally, when we deal with several Sa languages (which have preserved a given root) the comparison will look more solid].

In ex. 5, a PSa root is represented by several Sa languages; the NEC match is exact. - Ex. 6 shows only one Sa language which is archaic (actually, more it is more archaic in this case than even NEC which has lost initial *t- (NEC); this *t- is still present in NWC). - Both exx.. 6 and 7 show semi-identical matches between MC (an archaic Sa language) and NWC. - Ex. 8 provides a precise match between Sa (UC), Wk (Kw), and NEC languages:

(5) DRINK: UC *qʷo·ʔ* (from PSa; cf. Th *ʔu-qʷeʔ*, Ls *qʷuʔ*, etc.) // NEC *ʔu-qwV*.

(6) TWO: IS:MC *tqʼawʼ-s* (cf. *tʼqʼʷmawʼ-s-ən* 'together') // NC *tqʼHwā̄* > NWC *tqʼ|ʼːʷA* (> Ub-ykh *ṭq̇ʷa*). [Sa may show a typical vowel insertion: *CVC* for *CC*].

(7) TREE: IS:MC *cʼəl* // NWC *çəla* < NC *çʼ'ə̌/ə̌łV*.

(8) DIRT: Ts:UC *ciqʷ-i-* // NWk *cqʷ-*, *zqʷ-*; *cʼqʷ-* 'dirty'; cf. Kw *ʒeqʷá* 'dirt' // NC *čHɨ̌qʼwĂ*.

In Sa - NC comparison, some existing reconstructions (mostly proposed by A.Kuipers; cf. *Lingua* v. 57, 1982: 93-100) can be used, - but we may note that important phonetic elements (which still appear in some remnants of underlying consonants or cons. clusters) may be absent in these reconstructions. Unfortunately, the amount of the existing reconstructions is very low; on occasions, these reconstructions are not satisfactory from the point of view of comparative and diachronic semantics (there is a very strong tendency among linguists working on Sa and, especially, Wk languages to genetically unite different, though phonetically similar, roots, however improbable such a tie-in may be from the point of view of histor. linguistics and semantics).

Nevertheless, many existing PSa reconstructions are quite acceptable; it is not by chance that these reconstructions often match NC roots in a very precise manner:

(9) NECK, THROAT, GOITRE: PSa *qənu/axʷ* 'throat, gullet' (Kuipers) // NEC *qʼʷi/ēnwV* 'goitre, Adam's apple'. [Cf. NWk:He *qʼʷú-qʼʷùni* 'neck'. - Wk may reflect a process of simplification: *qʼʷ > qʼ/qʷ > q̇*; cf. Sa *q* in all languages; some NEC languages show *q̇*].

(10) HAIR (on the head; meaning 'head' is <u>not</u> original): PSa *qʼʷum* as in: IS:MC *qʼʷum-qən* 'head' (='hair + head'; cf. Th lex. suff. *=qín* 'head') : MS *qʼʷom-qən* / CS:Sq *s-qʼʷum-ay* 'hair', etc. // NC *q̇ʼ(w)ămʔə̄* 'plait, mane; hair'. [NB sound correspondences: Sa *qʼʷ* : NC *q̇ʼw*; umlaut: Sa *u* : NC *a*]

(11) DEER, etc.: MC *x̣ʷəl(ʕ)* 'buck' : Sp *x̣ʷɨ̇* id. / CS:Ls *x̣ʷel* 'deer': Sq *x̣ʷiʔ* // NEC *Gwăɬā* 'doe, hornless goat'. (On spirantization Sa *x̣ʷ* < *Gw* see below). - Possibly related to Sa *x̣ʷɨλʼ* 'mountain goat' (Kuipers), as in Se *s-x̣ʷɨ̌λʼ-ay*.

(12) COLD: PSa *cu̧/ạl* // NC *čʼwErHV*. [Pre-Sa *rH* is indicated by vowel retraction].

(13) WASH: PSa *cʼaʕʷ* // NC lex. suff. *=Háç̇wĂ*. [Metath. in pre-Sa?].

(14) GROW(TH): PSa *ƛʼaxʷ*, as both in IS:Th and CS:Ls, not just *ƛʼax* (Kuipers); this latter is a root variant with a lost [w]) 'grow(th), old'. - PSa root var. *ƛʼax* appears in IS:CO *ƛʼx*, MC *ƛʼəx* / CS:Se *ƛʼax-ax* *'grown up' > 'old person' // NEC *ƛ̣ʼōrχwV* 'sprout'. [Sa *a* (<*a, *o) in both main branches: IS:CO, CS:Ls (o is secondary in Sa languages); note *x̣ʷ* : *rχw*].

(15) HARD: IS:Th *ƛ'əʕʷ* vs CS:Sq *ƛ'əχʷ* / Ts:UC *ƛ'əχʷ* / BC *ƛ'aχʷ* // NC *ŁwĕrV*. Note typical transfer of *w* from *L*-type sound to *ʕ/x* in pre-Sa: [w] shifts to the right, to a more "comfortable" position, after *r* turns [ʕ/χ].

(16) BOY: PSa *t(a)wiH* [not *taw* '(small and) growing up'; Sa has two similar roots: one for 'boy', another for 'small, little'; see below] // NEC *dwirχE* 'child, son'.

Both IS:MC and CO show the root *tw'i-* 'boy, child', cf. also CS:Ls *tawixʷ* 'child'. - A different root (with the meaning 'little') is present in MC *t'aʕʷ*, CO *t?iw-*. - Accordingly, Kalispel shows *ł-tətəw'i-t* 'youth, young boy' vs *tew* 'little'.

For the meaning 'small, little', cf. NC *t'iHV* (which may be *t'iHU*). - Contamination of both roots ('boy' and 'little') seems possible in some Sa languages.

There is a tendency to lump together two PSa roots: *k'Vm(')* '(take a) handful', as in Sh *k'm-* (:NEC *k'ēmV* 'amful, handful') and a phonetically similar root *k'Vm?* which means 'bite'.

There is a tendency to lump together two unrelated PSa roots: *ław* 'leave (behind)' and *łup'* (as in Se; cf. N parallels) 'peel off'.

A reconstruction *p'alan(?)* 'treebark' (Kuipers) doesn't reflect a rather archaic structure *CVCCV(n)* of this root as represented by CS:Se *p'el'an*, IS:Th *p'a?yan* (*y* < *l*, etc; we may reconstruct PSa *p'aHlan* / *p'alHan* 'bark', or the like).

As mentioned above, Sa - NC comparisons seem valuable, even if we deal not with PSa reconstruction but with certain forms which appear in "individual" Sa languages. When comparing pronouns of the 1st and 2nd p. (stablest elements in any language) we may cite either Sa proto-forms or existing Sa forms: there is practically no difference:

(17) PERSONAL PRONOUNS: 1st sg. *-n* (:NEC *nƚ̌*);   *-ca/-s* (:NC *zō̄*);

2nd sg. *-xʷ* (:NEC *ʁwV̄*);   *-w* (:NC *u̯ō̄*);

1st p. pl. *-ł* 'we' (:NEC *Lā̯*).

[Note that NC *ʒ́wĕ* 'you (pl.)' has an exact parallel in Wk *-zu* (related to 2nd sg.). - Note also Ath 2nd pl. (subj.) -*xʷ*- which is comparable with Sa *-xʷ* : NEC *ʁwV̄*, 2nd sg.].

The above mentioned Sa root with the meaning 'two' exists only in one language (MC); still, its comparison with NC reveals some archaic relationship between Sa and NC:

(18) TWO: IS:MC *tq'aw'-s* 'two' (cf. *t'q'ʷmaw'-s-ən* 'together') // NWC *tq/':ʷA* (> Ubykh *ṭq̇ʷa*) (:Kartv[elian] *t'q'ub* 'twins', a borrowing?) vs NEC *q'Hwā̄* 'two'. This latter also appears in *q'HămVƚwV* 'one of several wifes' (Starostin). We may compare Sa:MC root *t'q'ʷmaw'-* (in 'together', above) with NC *tq'Hwă-mVƚwV*, on which the above NEC *q'HămVƚwV* is based. - Cf. Tsez *q̇/uƛu* 'pitchfork' with the uvular (not velar) initial, possibly influenced by *q̇/a-no* 'two' (Starostin) (:Sa in Ts:UC *qʷəx* 'fork; split, divide'; *qʷəyəƛ'* 'cut in two' ?); see NWk *q'- ƛh-* in ex. 19.

We may consider Sa numerals 'two' (above) and 'three' (next) as genuine proto-language inheritance since both these numerals have parallels in NC. (Some synonymous numerals in Sa may have been borrowings from Penutian which belonged, along with Sa, to an old North American Sprachbund).

(19) THREE: CS:Ls: *ɬixʷ* // NC **ƛHĕ* (:NWk: Ha *q'-ƛh-* 'six', *'two triads' (?), see ex. 18). - Sa frequently reshapes underlying roots as *CVC*.

[For root structure *CVC* in Sa vs a different, older structure in NC, cf. also: a) HEAR: CS:Ls *luh* // NC **=eƛu* > NWC **ƛ ʷə-*; b) CS:Ls *ʒixʷ* 'first' // NEC **çwi* 'in front, before'; c) CS:Ls *xʷu-l* 'near' // NC *χwE* 'together, close to'; d) IS:MS *xʷuy* 'go' // NEC lex. suff. **=iχwV* 'go'; e) IS:Sp *k'ʷiʔ* 'burnt' (etc.) // NEC lex. suff. **=ĩk'wV* 'burn, set on fire', - etc.].

It may be rational to compile lists of comparisons between representatives of various Sa language groups (such as Ts, IS, CS) and NC. At some point, we may add Wk cognates to our sets.

We deal with stable roots, many of which don't become subject of borrowing; besides, any plausible Sa-NC or Wk-NC cognate set is of interest to us. This short comparison may confirm our thesis that Sa languages are very stable from the standpoint of historical phonetics and that Sa (and Wk) languages easily reveal deep genetic ties with NC languages.

Note that we deal almost exclusively with words/roots which have the same meaning both in Sa (also in Wk) and in NC. [NC data are from the above mentioned NCED (with a few corrections from Starostin's materials as presented at the Moscow 2000 Conference on deep reconstruction)].

ANGER/ANGRY, ANT, ARROW, BEND, BLACK, BLOOD/BLEED, BLUE, BONE, BOY, BRANCH, BREAK, BURN, BUTTOCKS, CHILD, CHIP, CLOSE (adverb), COLD, CRAWL, CROWD, DARK, DEW, DIRT, DOG, DRINK, EAGLE, EAR, EYE, EYEBROW, FAT, FLASH (verb), FLOW, FRESH, FOREHEAD, GREASE, GROW, HAD, HAIR (on the head), HAND, HANDFUL, HARD, HIDE (noun), HORN, I, JOINT, LEG, LEAF, LITTLE, MILK, MALE, MAKE, MOUNTAIN GOAT, MOUTH, OPEN (verb), OLD, POINT (verb), PULL OUT, QUICK, RETURN, RIPE, ROCK, RUB, SCATTER, SCOOP, SCRATCH, SEARCH, SEW, SHARP, SHARPEN, SHORT, SHOULDER, SKIN, SLIP, SNOW, SPEAK, STICK (noun), STINGING INSECT, SWALLOW (verb), THOU, THREE, THROW, TIE, TREE, TURN AROUND, TWO, WASH, WAR, WARM, WE, WEAVE, WHITE, WOMAN, YOU (pl.).

b)   A Short Preliminary Lists of Sa - Nc Cognate Sets

The following comparison covers three groups of languages: 1) Ts:UC; 2) IS:MC / MS / Th; 3) CS:Ls / Se. The order of the first (and the second) consonants in Sa roots (capital cons. = Cons. class, for instance, *Q = q q' qʷ q'ʷ; X = x χ xʷ χʷ γ ʕ ʕʷ; S = s z, L = ƛ' ɬ l l',* etc.) is as follows: *K Q X ʔ // C S T n // r L y // P m w.*

1 A FEW COMPARISONS BETWEEN Sa:Ts (REPRESENTED BY UC) AND NC LANGUAGES

[Ts:UC vs NC] (1) BURN: UC *k(ʷ)əw-* // NEC lexical suff. **=ōgwV.* [Sa *kʷ < *kʷ* or **gʷ*].

(2) BE AFRAID: UC *qʷanu-* // NEC lex. suff. **=Hä-GwVn.* [Sa *qʷ < *qʷ* or **Gʷ*].

(3) DRINK: UC *qʷo·ʔ* (from PSa; cf. Th *ʔu-qʷeʔ,* Ls *qʷuʔ,* etc.) // NEC **ʔu-qwV.*

(4) BARK: UC *q'ʷiɬ-* 'cedar bark' // NEC **q'wăɬV* 'bark'.

(5) (?) ARROW: UC *χəlχaʔs* (< **χəlʔa-* ?) // NEC **ɦwăɦlV* (also *-ɬ-*) (> Tsez. **hel).*

(6) SPEAK: UC *χəw-əq'-* // NC **ĩχwA* (lex. sf.). [Note Sa *χew-* : NC **-χw-;* cf. ex.1 above].

(7) DIRT: UC *ciqʷ-i-* // NC **č'Hĩq'wĂ.*

(8) SUCKLE (etc.): UC *c'am-i-* 's.' (<PSa **c'ạm'*) // NEC **=ĕč'Vm-* 'gnaw, chew' (AvA **čam-*)

(9) DEW: UC *sǝxʷ* 'wet, dew' (from PSa **sVxʷ)* // NC **šaχwV.*

(10) HORSE, DONKEY: UC *tiqiw'-* 'h.' (from PSa) // NEC (Lak.-Darg.-Lezg.) **dHogwā* 'd.'. [This word seems to originate from NC **t'Hōgw V* 'hoofed animal'; cf. related NC **t'ūgV̄* '(young) male goat' (also 'young animal' in NWC].

(11) LEAF, PLANT: UC *ƛ'ǝc'-* 'grow' (of plants) [*ǝ <*a* ?] // NEC **ƛ'ać/ča* (/-ĕ) 'leaf' ('plant' in some lang.) (Cf. NEC:Lezg. **ƛ̣ača* 'stem, stalk, leaf, grain').

(12) LOOK (FOR): UC *ƛ'i* 'evidently' (:MC *ƛ'aʔ* and Sp *ƛ'eʔ* 'look for') // NEC *ʔiƚV* 'look'.

(13) (?) DEER (etc.): UC *ƛ'alaš* 'deer' // NEC **ƛ̣'äĥƚǝ* 'lamb'. [This latter doesn't match N **t'älV* 'young (of animals)' (St. '89, no. 197); for N, cf. Sa:CS:Ls *(s-)t'i-t'ǝlǝʔ* 'young (fawn, calf, colt)'].

(14) WOMAN: UC * łanay'*, lex. suff. *=łn(?)* [:CS:Ls *ładeyʔ* (*d<n*)] // NEC (Darg.-Lezg.) **λɨnĥV.*

(15) STEAM: UC *pǝxʷ* (:Th *pǝxʷ* spray with mouth') // NC **pHā̆χV.* [NC *-V = -U* ?].

(16) HANDFUL: UC *mo·ʔi-* '(take a) handful' (cf. *mo·-mł* 'take a handful'; *-mł* to NEC **mă̆r[ƛ]o* 'handful') // NEC (Tsez.-Lezg.) **mHŏ̆χɨ->* Tsez. **mɔχV*

(17) PAY: UC *muxʷi* // NC **mV̄χwV̆* 'price, pay' (> AvA **mixʷV* 'pay').

2. A FEW COMPARISONS BETEWEEN Sa:IS AND NC LANGUAGES

[IS:MC vs NC] (1) HAND: (?) MC *kalx* // NEC **kwiʔi.*

(2) BONE(S): MC *k'ʷǝn'* 'bones for stick game' (root) // NC **k'(w)inV* 'small bone'.

(3) HORN: MC *qǝx-min* (root + instrum. suff.) // NC **qwĩrhV.* [Late delab. in Sa; cf. NEC:Lak *qi* 'horn'].

(4) CRAWL: MC *q'ǝw'-t* // NC **HV-q(w)V.* [Note Sa *CVw-* vs NC *-Cw-*].

(5) MALE: MC *s-xal-wiʔ* 'husband' // NC **χōlʔi* 'male' (human/animal).

(6) BONE: MC *c'ạm'* (root; from PSa) // NEC **Hc̣'wējmǝ̆* 'leg bone'. [:Eyak-Ath **c'émʔ*]

(7) TREE: MC *c'ǝl* (root) // NWC **çǝla* 'tree' < NC **c̣'ǝ̆/ŏ̆ƚV* 'branch, tree'. **STAND - inoe**

(8) STAND UP: MC *c'ǝlix* (not related to ex. 7) // NEC **=Vm-c̣'Vr.*

(9) DARK: MC *c'el'* 'shadow, dark', *c'al'* 'shady' // NEC **Hč'ōlV̄* 'black' (Lezg. **c'olV* 'black; dark berry' = raspberry, etc.).

(10) TWO: IS:MC *tq'aw'-s* (cf. *t'q'ʷmaw'-s-ǝn* 'together') // NC **tq'Hwā̄* > NWC **tq/':ʷA* (> Ubykh *ṭq'ʷa*).

(11) (?) ROT, PUS: MC *naʔq'* 'rotten meat' // NEC **nĕwq'ŭ* 'pus' (> Lezg. **näwq̇:*) [:ST **nɔk/ŋ*].

(12) BREAK (etc.): MC *lǝq'ʷ-* 'break, smash' // NEC **HlŏqV̄n-* 'destroy, break, scatter'. [Note Sa *-q'ʷ* vs NC **-qV*, possibly **-qU* ?].

(13) (?) (TELL) A STORY: MC *may'x* (root) 'tell a story' // NEC **mĥ/ʕārχwā* 'tale'.

[IS:MS vs NC] (14) PLENTY: MS *q^{w}o/ey* 'rich, plenty' // NC *$\bar{q}$'(w)ǎ/ějē* 'things, possessions'.

(15) GO: MS *x^{w}u, x^{w}uy* // NEC lex. suff. *=ĭχwV.*

(16) SPARK: MS *cʔik^w* (:*cik^w* 'shine') // NWC *çV(jə)ḳwa* < NC *ç'wǯVkwŏ* 'brand, spark'.

(17) SHEEP, LAMB: MS *łoχ^w* 'sh.' (:Sp *łuʔ*) NC *ʕ̄ īlχU.*

[IS:Th vs NC] (18) DRINK: IS:Th *ʔu-q^{w}eʔ* (:Ts:UC *q^{w}oʔ*) // NEC *ʔuqwV* or *ʔōqwV.*

(19) JOINT: Th *q'^{w}ət-x̣^{w}əm'* (2nd stem: 'lump') // NC *q'HwəntV* 'knee, elbow'.

(20) (?) ELK, GOAT (etc.): Th *təx̣^{w}aq'^{w}-* (root) in *təx̣^{w}aq'^{w}-iʔpe* 'doe' // NC *dVrq'wV* 'he-goat'.

(21) BEND: Th *łaq'^{w}-əw-t* 'bend over' // NC *=iłq'wV(ł).*

(22) ROCK: Th *ƛ'ix̣^{w}-* // NEC *ƛ̣'wehrŭ* (or *-lŭ*). [*w*-transfer in pre-Sa?]

(23) GATHER; HANDFUL: Th *muq, moq^w-* 'gather' // NEC *mŏq'V̄* 'handful' (also 'handle, hilt'') (> Tsez. *moq*).

(24) SWALLOW, THROAT (etc.): Th *məq'* 'satiate', *məq^w* 'hold in mouth' (:Ls *bəq'* 'put/hold in mouth, swallow'; *b < m*) // NEC *mVq'Vł V* 'throat, larynx' (> Tsez. *muq'* 'throat').

(25) WHITTLE, etc.: Th *məx* 'wh.; sliver' // NEC *m[ā̆]nxwV* 'sickle' > Lak *mirx* (etc.). [NC also shows meanings 'plough', 'reap' in different languages].

(26) SNOW: Th *məx^w* (:Sp *mx^w-* 'to snow') // NEC *marχalV* > Lezg.:Tab. *maʁ^{w}al.*

(27) GREASE: Th *miʕ'^{w}-* (root) // NEC *mǎɦwV.* [Voiced cons. both in Sa and NC].

(28) LYNX, CAT: Th *məɣew'* 'l.' // NEC *mHarGVwV* 'tom-cat'. [As above].

(29) STINGING INSECT(S): Th *məz·/məze* 'flies'; *məc'/məc'e* 'bees, hornets, wasps' // NC *miʒA̧* stinging insect.

(30) MOUNTAIN, HILL, PILE: Th *mol* 'pile up (dirt or snow)' // NEC *muHalV* 'mountain' > Lezg.: Arch. *mul*, etc. (In Tsez. also 'hillock, knoll').

3.   A FEW COMPARISONS BETWEEN Sa:CS AND NC LANGUAGES

[CS:Ls vs NC] (1) BURN: Ls *k'^{w}a-s* 'burned' (cf. IS:Sp. *k'^{w}iʔ* 'burnt') // NEC *=ĭk̇'wV.*

(2) (?) GREEN (etc.): Ls *q^{w}ac* 'yellow, (light) green, pale' // NEC *Goʒ V* 'green color, dirt'.

(3) THOU: Ls *-ax^w* // NEC *ʁwV̄.*

(4) SCATTER: Ls *x^{w}əš* (*š* from *x*) // NEC *=HĕχwV.*

(5) SHARP: Ls *x^{w}əc* // NC *ɦüǯwĀ* > Tsez. *ʔãč-.* [*w*-transfer (from *C* to *X*) in Sa?].

(6) (?) EAT: Ls *x^{w}uƛ'* [:NWk *ƛ'x^w-*, metath.?] // NEC *=iʔwVł* (metath. in Lezg.:Archi *lah-* < *liʔ^{w}ä-*).

(7) BLOOD: Ls *cəł* // NEC *c'āⱢwV.* [There is no PSa *cay* 'blood' (*y < *ł*); for Sh *ciʕ^w*, Th *cʔiʕ^w*, 'bleed' (Sq root *ciʔ/x^w*), cf. Nakh. *çegi*, Lezg.Tab. *čiwi* (same NEC root)]

(8) CHILD: Ls *tawix^w-* (root) // NEC *dwirχE.* [Note Sa *CVC-* vs NC *CC-*].

(9) ACROSS: Ls *t'ał* '(put) crossways, across', *t'ał=us-ən* 'beam' // NEC *t'wēlʔe* '(cross)beam'.

(10) WE: Ls -aɬi // NEC *Lā̃.

(11) MUCUS, SALIVA: Ls ɬəbc' 'm.' (b < m) // NEC (AvA-Tsez.) *ƛ̆ămVč'V (/x-) 'saliva, pus'.

(12) (YOUNG) HORNED ANIMAL: Ls   s-wiʔ-qaʔ 'buck deer' (root *wiʔ) // NEC *wɨ̆ħwV 'sheep, lamb, young (horned) animal'.

[CS:Se vs NC] (13) HIDE, STEAL: Se kʷal- 'h.' // NEC *=igwVɬ 's.'. [Sa kʷ < *kʷ or *gʷ].

(14) BEND, CURVE: Se k'ʷuc'- 'bend' (v.) // NEC *kɫ̃č'wɫ (also *č'ɫ̃kwV) 'curved'.

(15) (?) LUMP (body): Se qʷemx̌ʷ 'lump of ankle' // NC *q'ămq'(w)ă 'knee, leg-bone'.

(16) GOAT: Se x̌ʷiƛ'ay 'mountain goat' // *Gwăɫā 'doe, hornless goat' (> AvA ʁʷalV > Tlan. ʁʷeli / Tsez. *ʁ:ʷel > Gin. ʁʷil, etc.). [NB: Altern.: NC *ʔiʔlχU. (Metath. *x̌ʷilʔ- in pre-Sa?)].

(17) (?) DRIP, DRIZZLE: Se c'iq'ʷ- 'drip' // NEC *čŏwqɫ 'drizzle'.

(18) WASH: Se c'əx̌ʷ // NC *=Hä̆ćwĂ. [Metath. and *w-transfer in pre-Sa?].

(19) LOOK, EYE: Se c'il- 'look for' // NEC *c'ilV 'eye' [sic! Not 'eyelash, eyebrow'].

(20) GIVE: Se yat- (from *=it- ?) // NC *=VtV̆.

c)   Selected Wk - Nc Cognate Sets

 Phonetically, Wk languages are more archaic than Sa [a higher amouny of laterals (close to that of NC); a higher amount of inherited voiced consonants, etc.]. - We may use the following data.

(1) WIDE: Wk:No, Ni ʔaq-, NWk:He [ʔʌqá] // NC *ħärq'Ë. [-q- < RC, as in Sa].

(2) HOLE: Wk:Ni kux̌ʷ-ak // NEC *kHwə̄rV. [Wk x̌ < *r, as in Sa?].

(3) KNIFE, SCRAPE: NWk kus- 'scrape off with a knife, shave' // NEC *k̯[ɨ̃]śwV (cutting tool). [Transfer of *w in pre-Wk ?].

(4) SEE; VISIBLE: Wk:No kʷa·hi, M. (=Ma?) kʷa·x̌i 'v.' // NEC lex. suff. *=agwV 'see'.

(5) DUST, DIRT: NWk: q'x̌ʷ 'dust, powder' // NEC *q'ħ/ʕwŏrV 'dirt, turf'.

(6) NECK, THROAT, GOITRE: NWk:He q'ʷú-q'ʷùni 'neck' // NEC *q'winV 'goitre, Adam's apple'.

(7) BUTTOCK(S): NWk:Kw x̌ím'a // NEC *χħwɨ̃mχV (also 'cheek') > Lezg. *χ/i(m)χ/- 'buttock'.

(8) DIRT: NWk cqʷ-, zqʷ-; c'qʷ- 'dirty'; cf. Kw ʒeqʷá 'dirt' [:Sa:UC ciqʷ-i- 'dirt'?] // NC *c̯'Hɨ̃q'wĂ (/-G-).

(9) SLIP: NWk caʔx- (as in Kw ceʔxá 'slippery') // NEC *čirχwV. [Delab. in pre-Wk?].

(10) (?) FLOW: NWk:Kw caχis 'flowing down' // NEC *čHaχV.

(11) FLOW, POUR; WASH: NWk cxʷ- (as in Kw cxʷla 'overflowing') may, or may not, relate to NWk c'uxʷ- > Kw c'uxʷa 'wash' [cf. in Sa: UC c'əx̌ʷ- and MC c'aw' 'wash' vs MC c'əx̌ʷ 'pour out'] // NEC lex. suff. *=Hä-ćwV 'pour, wash'.

(12) FAT: NWK cnχʷ- // NEC *c'ēnχwV

(13) SHAKE: NWk:Kw culix̌a 'shatter' // NC *=ēʒwËl.

(14) SHORT: NWk c'kʷ-, Kw [c'ek'ʷá] // NC ʒ̆ik'wV̆.

(15) SCOOP: NWk c'iq- // NEC *ćǎq'wǎ. [Cf. next, for Wk q (etc.) vs NC q'w].

(16) NARROW, TIGHT: NWk c'iq'-, c'iq'ʷ- (also with q, qʷ) // NEC *č'iq'wV 'tight plait'.

(17) (?) POLE, STICK: NWk c'waχ-, Kw c'uxʷ- 'insert (pole)', c'xʷ- 'stab'; zuxʷ- 'log, pole' // NEC *ċ'wēχV 'stick'.

(18) ARROW: No c'iḥat, Ma c'iχat (Wk root *c'iχ- ?) // NC *c'änHV

(19) FRESH: NWk:Oo c'uta (<*c'w- ?) // NC *=Vč'wV 'good, fresh, new' > NWC *č̣ʷa.

(20) BLACK: NWk c'uɬ- [:Sa:BC c'u- 'grey' ?] // NEC *Hč'ōlV.

(21) (TO) POINT: NWk c'm- 'idex finger; to p.' [:c'm-t 'stand on tiptoes'] // NEC *c̣'ūmV 'tip, p.'

(22) PLANT: NWk zm- (Kw zmiʔ, etc.) // NEC *č'ắmħV.

(23) SHARPEN: NWk *zuχʷ- // NC *ɦüʒwĀ. [Metath. and w-shift in pre-Wk?].

(24) MILK: NWk: Kw, Oo zam'-a '(suck at the) breast'; *zm-xʷ- 'milky' (in Oo) // NC *=āmʒŬ 'to milk, to drink'. [Wk underlying root *zm- from   metathesized *zVmV ?].

(25) CROOKED, CURVED: NWk:Oo siʔk-la 'crook-ed' // NEC *č'ǔ̃kwV 'be hooked, curved; cook'

(26) (?) MOUTH: NWk sm-s-; Oo sm-yat 'have mouth' // NEC *ʒ́wěmV. [For phonetics, cf. Wk -s/zu 'you' (pl.) : NC žwě id.; Sa -s/ca 'I' : NC zō id. ?].

(27) CUT: NWk t'ew- (in Kw verb t'ewíkʷ) // NC *=āt'wV. [Wk CVC vs NC CC].

(28) I: Kw -en; cf. nus, He nís 'be mine' [cf. Sa] // NC *nɨ̌

(29) DIRT: NWk niqʷ- (Kw, Oo niqʷa 'dirty') // NEC *něq'wɨ

(30) THROW: NWk:Kw nep'-íd // NEC *l(H)ap'V / Urartu nāp'- (as in nāp'-aχ- 'overthrow'). [Wk n < *l(H) ?].

(31) SHOULDER: NWk n'ikʷ- 'carry on the sh.' [:NWk niχ- 'act with hand'?]   // NC *nHɨ̆wG̱Ā 'arm, shoulder'.

(32) (?) BERRY: NWk n'uxʷ- (Kw n'uxʷa 'small blueberry') // NEC *niwG̱V.

(33) SWALLOW (verb): NWk n'q'ʷ- (Kw n'q'ʷa) // NEC *=HV-q'wVn. [Metath. in Wk?].

(34) (?)MOUNTAIN GOAT: NWk n'aχ- (He n'aχa) // NEC *ɦ/ʕānχV. [NB Wk CVC : NC -CC-].
(35) FLASH: NWk:Ha l'pa 'flash a light' // NEC *l/ɬapV 'glitter, flash'.

(36) BRIGHT: NWk:Kw ɬis-a 'fair (complexion)' // NC *lōʒ̄V 'bright metal > Lezg. *lac:V- 'white', etc. (Lezg. languages shift the original meaning 'bright metal' to 'bright, white').

(37) (?) KIN: NWk:Kw λul'iʔ 'nephew, cousin' (etc.) // NC Hɨ̆-ƛ'ĩwV-ɬV (> NWC *ƛ':ʷəlA 'seed, kin, clan, people').

(38) HARD: NWk: He ƛ'áχ- and Kw (etc.) ƛ'aχ- 'stiff, regid' [:Sa:UC ƛ'əʕʷ / MC yəʕ'ʷ hard'] // NEC *Ɫ̣wěrV 'hard'. [*w-loss in Wk; *w-transfer in pre-Sa?].

(39) (?) SKIN: NWk ƛ'is- // NEC *ƛ̣wājc'ā 'skin, bark'.

(40) (ACT WITH) HAND: NWk:Kw ƛ'ol- 'feel, grope with hand': NEC *ƛ'ōrə̄ 'hand'.

(41) DOG: NWk:Kw w'ac' // NC *gwǎʒē > Darg. *k:ʷač:a (etc.).

d)   Direct Comparison Between Sa and Nc Daughter Languages

Since Sa proto-language is not yet sufficiently reconstructed, and since the existing reconstructions are fully, or almost fully, identical to roots in "individual" Sa languages (see above), we may *compare roots of "individual" Sa languages <u>directly</u> to NC daughter languages* (first of all, to reconstructed languages - ancestors of NC language groups). Predictably, roots/words of "individual" Sa languages are, on many occasions, identical or almost identical to roots/words in NC daughter languages.

If we consider the following three cognate sets we may see that the closest link between Sa and NC languages is neither Sa-to-NC nor Sa-to-NEC but that between Sa and a certain NC daughter language, such as Nakh.:

(1) EYE: Ts:UC *co·-* (as in *co·qʷa* 'tear' = *'eye+water'; cf. CS:Sq *qʷu*) / CS:Se *ca-* // Nakh. **ça-* (< NEC **c'alV* > Darg. **-čali*, with preservation of the NEC **-l-*).

(2) DOWN: Ts:UC *lixʷi-* 'walk downward' // Nakh. **laχu-n* (cf. Chechen *loχa* 'low', *laχa* 'down, below'; *laχ-alar* 'descend, come down', etc.) < NEC (Nakh.-Lak.) **l/ɬV̆χV* 'low'. [Note Sa *-xʷ-* : Nakh. **-χu-*].

(3) GATHER, HANDFUL: IS:Th *muq, moqʷ* 'gather' // Nakh. **muq̇* (< NC **mŏq̇'V̆* 'handful, handle') / Tsez. **moqV*.

Now we may look through four short lists of cognate sets, namely, Sa vs AvA; Sa vs Tsez.; Sa vs Lezg.; Sa vs NWC. - Occasionally, Wk - NC cognate sets are listed as well.

1.   A FEW COMPARISONS BETWEEN Sa AND AVAR-ANDIAN LANGUAGES

The following list includes some comparisons between Sa languages and NEC daugter languages. On occasions, Wk-to-NC cognate sets also appear in the list.

(1) EYES, LOOK: / Ts:UC lex. suffixes *=us-i-* 'face, eye', *-al-us* 'eye' (:CS:Sq *=us* 'eyes' in *c'ip'=us* 'shut the eyes') // AvA **-us-* 'to search' (> *-us-* in modern AvA l-ges) < NEC **=HimsV* 'to look'. - The above comparison may be summarized as follows:

[=1] Sq *=us* 'eyes', UC *=us(-i)-*	And. *-us-* < AvA **-us-* 'search'	< NEC **=HimsV* 'to look'

(2) TO SCRATCH: IS:Th and MC *qəs* // AvA **qas:-* < NEC **qāl̩sV*.

(3) WHITE, BLUE: Ts:UC *qʷa/uxʷ-* 'wh.', *q'ʷix̣* 'b.' // And. *q:ʷoj* 'b.' (<PAnd. **ʔV-q:ʷo-ji-* < AvA **q:oʔi-* 'wh., b.' < NEC **=ĕqwX̆* 'yellow').

(4) COLLAR-BONE: IS:Sp *-q'wl-* (root) // AvA **qʷilu* (< NC **qHwŏɬwV* 'neck, collar'). [Note Sa *q'(ʷ)* vs NC **qH(w)*].

(5) LUMP, BUTTOCK(S): Ts:UC *x̣ʷum-* 'lump' (in compounds, meaning 'elbow', buttocks'; cf. also IS:Th *q'ʷət-x̣ʷəm'* 'joint' vs NEC **q'HwəntV* 'knee/elbow') // Wk:Kw *x̣ím'a* [note delab. *x̣*] // AvA **χ:ʷ[i]m(V)χV* (:Lezg. **χ/ɨ(m)χ/-*) <NEC **χɦwɨmχV* 'buttock, cheek'. [NB **-mχ- > -*-mVχ-*].

(6) FAT: NWk *cnx̣ʷ-* (in Kw *cnx̣ʷiʔ*, etc.) // NEC (AvA-Darg.) **c'ēnx̣wV*.

(7) SUCKLE, CHEW: (?) Ts:UC *c'am-i-* 's.' (<PSa **c'am̩'*) // AvA **čam-* < NEC **=ĕč'Vm-* 'gnaw, chew'.

(8) POUR, WASH: IS:MC *c'əxʷ* 'pour', *c'aw'* 'wash' : Sp *caw* (:*caʕʷ*), *c'ew'* 'wash' // AvA **č:Vb-* (*b < *w*) < NC **=Hä-ǵwX̆*.

(9) GROW(TH): IS:Th, CS:Ls *ƛ'aχ^w* // AvA **ƛiχ:^wi* < NEC **ƛ'ōrχwV*. [NB absense of pre-consonantal **r* both in Th, Ls, - and in AvA; note also preservation of labial elements in these languages].

(10) LOOK FOR: IS:Sp *ƛ'eʔ* / Ts:UC *ƛ'aʔ* (etc.) (from PSa) // AvA *ƛ:V-* < NEC **ʔiɬV* 'to look'. [Metath. in pre-Sa?].

(11) MUCUS, SALIVA: CS:Ls *ɬəbc'* 'm.' (*b < m*) // AvA **ƛ/λaç:V* and **ƛ/λamçV* < NEC (AvA-Tsez.) **ƛămVč'V* (*/x-*) 'saliva, pus'.

(12) PAY: Ts:UC *mux^wi-* // AvA **mix^wV* 'pay' (> Av. *mux*) < NC **m∇xw∇* 'price, pay'.

2 A FEW COMPARISONS BETWEEN Sa AND TSEZAN LANGUAGES

(1) SMOKE: Ts:UC *q^wo·ʔ* and *q'^wuχ^w-*; CS:Ls *q^wəš* (*š < x*) // Tsez. **q^wɫ̣, *qo* < NC **kwĭnħV*. [Sa *q^w* matches Tsez. **q^w*].

(2) JOINT: Ts:UC *χ^wut'* 'bent up' / IS:Th *q'^wət-x^wəm'* // Tsez. **qətV* and **qəntV* < NEC **q'HwəntV* 'knee/elbow'. [Note Sa *-t'* : Tsez. *-t-* and *-nt-* < NC **-nt-*].

(3) STICK (noun): Ts:UC *χəc'* 'stick' / IS:Th *χəc* and *χic* 'wooden' // Tsez.:Gin. *χišu* < NEC **GHwälćV* 'stick, board'.

(4) ARROW: Ts:UC *χəlχaʔ-s* (< **χəlʔa-* ?) // NEC **ħwăħlV* (also *-ɫ-*) > Tsez. **hel* / Lezg. **ħäl(:)* (etc.). [Sa shows *χ* vs **ħw* (similar: NEC languages Tsez. and Lezg.). - Sa also seems to show *l ... ʔ* (from **ʔ ... l* ?) vs cluster **ħl* in NEC].

(5) SHARP: CS:Ls *χ^wəc* // Tsez. **ʔãč-* < NC **ħüžwĀ*. [*w*-transfer (from *C* to *X*) in pre-Sa?].

(6) GROW(TH): IS:MC *ƛ'əχ-*, CO *ƛ'χ* / CS:Se *ƛ'aχ-* (etc.) // Tsez. **ƛeχ(:)* < NEC **ƛ'ōrχwV*. [NB preservation of [χ] but loss of [w] both in CO, Se, - and in Tsez.].

(7) GATHER, HANDFUL: IS:Th *muq*, *moq^ww-* 'g.' // Tsez. **moqV* (:Nakh. **muq̇*) < NC **mŏq'V̇* 'h.' (also 'handle').

(8) SWALLOW, THROAT (etc.): IS:Th *məq'* 'satiate', *məq^w* 'hold in mouth' (:Ls *bəq'* 'put/hold in mouth, swallow'; *b < m*); from PSa // Tsez. **muq̇* 'throat' < NEC **mVq'VɬV* 'throat, larynx'.

(9) HANDFUL: UC *mo·ʔi-* // Tsez. **mɔχV* < NEC (Tsez.-Lezg.) **mHŏχɨ*

(10) HANDFUL: UC *mo·ɬ* // NEC **măr[ƛ]ə/o* 'handful, armful' (> Tsez.:Gin. *meƛu* 'handful', etc.).

3 A FEW COMPARISONS BETWEEN Sa AND LEZGIAN LANGUAGES

(1) ANGER: Ts:UC *qələχ-* 'angry' // Lezg. **q|al(:)* > Lezgi *qel* (:Nakh. **qēl*) < NEC **Gwăɬho* 'gossip, offence, anger' (etc.). [Sa seems to show simplified *q* vs NEC **Gw* (similar: Nakh.; Lezgi). - Besides, Sa shows a frequent restructuring of the *CVCCV*-type root into *CVCVC*].

(2) DAY: Ts:UC *q'iχ-* // NEC **Hwĩq'V* > Lezg. **q:i* 'today' < **Hwq'ɨ̃* . [Metath. in pre-Sa?]:

[=2] UC *q'iχ-* 'day'	Lezg. **q:i* 'today' < **Hwq'ɨ̃*	< NEC **Hwĩq'V* 'day'

(3) DRINK: Ts:UC *q^woʔ* / IS:Th *ʔu-q^weʔ* / CS:Se *q^wu-* // Lezgi *q^wa-* < Lezg. **ʔoq^wa* 'suck, drink' < NEC **ʔuq̇wV* or **ʔōq̇wV* 'drink'; actually a Lezg.-Tsez. isogloss (cf. also NEC lex. suff. **=VqV* 'suck').

(4) (?) LOOK: Ts:UC *ʔəx̣-* 'see' // Lezg. **ʔʷVr* (> Arch. *hara-*, in compounds; cf AvA **ħa/orV*) / Darg. **ħer* < NC **ʔwerV*, noun and verb (an archaic root).

(5) DARK: IS:MC *c'el'* 'shadow, dark' / CS:Ls *c'al* 'shadow' // Lezg. **c'olV* 'black; dark berry' (= raspberry, etc.) < NEC **Hč'ōl̄V* 'black'.

(6) EYE: CS:Se *c'il-* 'look for' // Lezg. **çil-* in **çil-çim* [sic!] 'eyelash' > Tab[asaran] *çil-çim* / Tsez. **çi(l)-ç(im)-* id. (to NEC **c'i̱lV* 'eye'). - Se (Sa) and Lezg. (NEC) show an archaic feature: preservation of the 2nd root cons. **l.*

(7) BLINK THE EYES / EYELASH: BC *c'im-uɫ* 'blink the eyes' [:UC *c'im-alis-* 'open and shut the eyes; squint'] // Lezg. **çil-çim* > Tab. *çil-çim* 'eye-lash' (:Drav. **cimV* 'blink, wink; eyelash'). - See above.

(8) (?) ROT(TEN), PUS: IS:MC *naʔq'* 'rotten meat' // Lezg. **näwq* > Lezgi *naʁʷ* (:Tsakh. *naʁ*) < NEC **něwq'ŭ* 'pus'.

(9) LEAF, PLANT: Ts:UC *ƛ'əc'-* 'grow' (plants) [*ə* < **a* ?] // Lezg. **ƛača* 'stem, stalk, leaf, grain' < NEC **ƛ'ać/ča* (/-*ĕ*) 'leaf' ('plant' in some lang.) [Lezg. glottalization pattern equals Sa].

(10) WOMAN: Ts:UC *ɫanay'*, lex. suff. *=ɫn(?)* / Cs:Ls *ɫadəyʔ* (*d* < *n*) // Lezg. **λ:i̱n:(ol)* < NEC (Darg.-Lezg.) **λi̱nḥV.*

[Sa:UC word seems to match Lezg. root precisely: UC *-ay-* matches Lezg. **-ol*, etc.].

(11) SNOW: IS:Th and MC *məx̣ʷ-* : Sp *mx̣(ú)* 'to snow' // Lezg.:Tab. *maʁʷal* < NEC **marx̣al/ɫV.*
(12) MOUNTAIN, HILL, PILE: IS:Th *mol* 'pile up (dirt or snow)' // Lezg.:Arch. *mul* < Lezg. **muh/Vl* or **muʔl/Vl* < NEC **muHalV* 'mountain', etc. (In Tsez. also 'hillock, knoll').

(13) EYE: CS:Se *wil/'-* 'peep, peer', BC *-uɫ* // Lezg. **ʔʷil* > Lezgi *wil*, Tab. *ul* / Darg. **ħuli.*

4 A FEW COMPARISONS BETWEEN Sa AND NWC LANGUAGES

(1) STICK (etc.): CS:Ls *qʷ(ə)ɫayʔ* 'stick, log' // NC **q'wə̆lʔă* 'board' > Lezg. **qula* 'board, shelf, lid, small plank' / NWC **Gʷə* 'board, post, pole, stake'. [Non-glott. Sa *qʷ* matches NWC **Gʷ*].

(2) SPARK: IS:MS *cʔikʷ* (:*cikʷ* 'shine'; cf. Th, Sp *c'ek'ʷ* 'shine, shiny') // NWC **çVḳʷa* / **çVjəḳʷa* < NC **c'wǯVkwŏ* 'brand, spark, brilliance':

[=2] Sp *c'ek'ʷ* 'shiny'	Tsez. **çəḳə* 'fire-brand'	WC **çVḳʷa* 'spark, fb'	< NC **c'wǯVkwŏ*

(3) FRESH: NWk:Oo *c'uta* (<**c'w-* ?) // NWC **č̌ʷa* < NC **=Vč'wV* 'good, fresh, new'.

(4) TWO: IS:MC *tq'aw'-s* (also *t'q'ʷ-* in this root) // NWC **tq/':ʷA* > Ubykh *t'q'ʷa.*

(5) DO, MAKE: Ts:UC *wi* // NWC **wə* < NC **=ăhwV(r)* [ablaut **a/i*] (> NEC:Tsez. **=Vw-*).

e)   Genetically Related Compounds In Salishan and North-Caucasian Languages

We may identify CS:Se *ca-cum(-an)* 'eyebrow' with Nakh. **ça-çʔVm* 'eyebrow'; this compound apparently consists of a word for 'eye' + word for 'hair' (:ST **chañ*): this latter component appears as **-c'ĥwĕme* in NEC (in 2 compounds, both for 'eyebrow' <'eye+hair'):

(1) EYEBROW: CSSe *ca-cum-an* / Ts:UC *cum-ay'is* (*'hair' + 'eye') // (NEC **c'alV-c'ħwĕme* [rather than **c'ilV-c'ħwĕme*] >) Nakh. **ça-çʔVm* 'eyebrow'; cf. next ex. where the component 'eye' is different.

(2) EYEBROW: BC *-uł* 'eye' + Se, UC *cum* in 'eyebrow' (ex. 1) // (NEC **ʔwił/₂i-*c'ħwĕme* >) Lezg. **ʔwil(i)-çʷem* > Tab. *ul-č̌ʸi/am* (eye+*hair). Cf. 'eye': (Lezg.>) Lezgi *wil*; (Darg.>) Ak. *ħuli*.

The NEC component **c'alV* and/or **c'ilV* means <u>only</u> 'eye': gloss " **c'ilV* 'eyelash'" in NCED seems <u>incorrect</u>: when this root appears in compounds with the meaning 'eyelash' *<u>then the 2nd component is genetically different from the above</u>* **-c'ħwĕme* (> Nakh. **-çʔVm*, Lezg. **-çʷem* etc.)

Accordingly, *<u>in a synonymous compound</u> *ʔwił/₂i-*c'ħwĕme <u>the 1st component means only 'eye', not 'eyelash'</u>*. The 2nd component (*-*c'ħwĕme*) *<u>is used only in words for 'eyebrow', not in words for 'eyelash' (or 'eyelid')</u>* [cf. Sa:UC *cum=ay'is* 'eyebrow' (*'hair' + 'eyes'): <u>not</u> to *c'im-* 'blink'].

As we have seen, NEC compound **ʔwiłi-*c'ħwĕme* 'eyebrow' > Lezg. **ʔʷil(i)-çʷem* 'eyebrow' is the underlying form for Tab. *ul-č̌ʸi/am* id.; labial element [w] in the 2nd component indicates that it originates from NEC **-c'ħwĕme.* - In Sa, *wil-/wi'-* (CS:Se) means 'peep, peer', and a related form *-uł* means 'eye(s)' (acc. obj. in BC *c'im-uł*); Sa *cum* is used only in words for 'eyebrow'.

<u>It is incorrect to reconstruct the NEC word for 'eyelash', using the 2nd component derived from NEC *c'ħwĕme</u>: this latter always means 'eyebrow', never 'eyelash': so, there is no " **çil-ç^(w)em* 'eyelash'" in Lezg.:Tab. *çil-çim* 'eyelash'. This root *-çim* (Lezg. **-çim* > Tab. *-çim*) *<u>is etymologically different</u>* from *-č̌ʸi/am* (< Lezg. **-çʷem*) in the word for 'eyebrow': *ul-č̌ʸi/am* above.

[In Sa, *c'im-* means 'blink; contract; open and shut' (+ obj. 'eyes' in BC (*-uł*) and UC (*-alis-*)). In NC we have Lezg. **-çim* in Tab *çil-çim* 'eye-lash', and Darg. **čimi-čali-* 'eye-lash' (in Ak.). - In Drav. **cim-* means 'wink, blink, twinkle; eyelash, eyelid'. - In Kartv. **c'am-* means 'instant' [typologically matching Russ. *mig* vs. *migat'*, a verb]; **c'am-c'am* 'eyelash(es)'. Old ablaut **i/a* in N **c'imV/*c'amV* [Dolg.: **č́'-*] 'blink the eyes; eyelid' reminds us on **i/a* in NEC **c'ilV/*c'alV* 'eye'.

We may add that NC shows only nominal meanings for the above words ('eye', 'eyelash' etc.); Sa shows only nominal meanings for *ca-*, *-uł* 'eye(s)' but only verbal for Se *c'il-* ('look for'), *wil/'-* ('peep, peer'). - Drav. (**cim-*) is used both as verbal and nominal stem. - Kartv. **c'am-* means both 'instant' (verbal origin very likely) and 'eyelash' (**c'am-c'am-*; verbal origin likely)].

<u>It is incorrect to assert that words for 'eyelash' in many Lezg. languages "are completely distorted": they rather belong to different roots</u>: Tab. Khiv. *miç-miç* may originate from the above **c'im-*; Khl. *čep-čep-aj* 'eye-lash' (from *'cover-cover for/of eye'?), Kryz *çăp* id., Fit. *çip-çip* id. may match IS:MC *çəp- ɫ -ay'* 'eyelash(es), eyelid'; Ls *c'ip-l-il* 'shut the eyes', CS:Sq *c'ip'-us* id., etc. (Note NEC:Khl. *-aj* vs IS:MC *-ay'*, probably, *'eye, face').

Note also that words of the type Tsez. 'eyebrow', 'eyelash' **çiç* > Tsez. and Gin. *çe-ç* (as stated in NCED) seem to contain (**çil-* > **çɨ -* >) *çe-* *'eye' + the 1st sound of the 2nd component (apparently, < **-Vm-* when judging on the oblique base Cez. *çe-çmo-*). We may add that the 2nd component may be *'hair' in words for 'eyebrow', but in words for 'eyelash' the root may be different (possibly **çim(V)-* used in words for 'eyelash'; a homonym).

We have, both in Sa and in NEC:

(a) Ts:UC *cō-* 'eye' / CS:Se *ca-* // NEC **c'alV* > Nakh. **ça-* / Darg. *-*čali* 'eye'

(b) CS:Se *c'il-* 'look for' // (NEC **c'ilV* 'eye' >) Lezg. **çil-* 'eye' / Tsez. **çɨ-* 'eye'

(c) CS:Se *wil-* 'peer' / BC *-uɫ* 'eye' // (NEC **ʔwiⱡʔi-* >) Lezg. **ʔᵂil(i)-* 'eye' > Tb *ul-* 'eye', etc.

(d): [**'hair' in 'eyebrow'] Ts:UC *cum-* / CS:Se *ca-cum-*, Ls *cub-əd* // Lezg. **-cᵂem* in Tab. *ul-čʸi/am*

(e) BC *c'im-uɫ* 'blink the eyes' // (Lezg. >) Tab. *çil-çim* 'eyelash' : Darg. **čimi-čali* id.

f)   Some other Roots and Compounds, Designating Body Parts

There are many forms in both in Sa and NC, describing body and its functions. (Sa compounds of the type 'elbow-joint' relate to words, meaning 'twist, bend' (etc.), or 'lump' [note Sa variants with *q'ᵂ/xᵂ*]):

(1) FINGER: IS:MC *=aks-t* // NC **k'ặs̯ɨ/a* (very archaic)

(2) SMALL BONE: IS:MC *s-k'ᵂən'-k'ᵂən'* 'bones (for stick-game)' // NC **k'(w)inV* 'small bone' (also about small bones for playing dice).

(3) ARM, EMBRACE (etc.): CS:Sq *q'ac'* [*c'* < **rC'* ?] // Lak. and Khosr. *qač* 'shoulder' < NEC **qắrćʼwV* 'shoulder, arm'.

(4) HORN: (I) IS:Th *qᵂay'* < **qᵂa/ir'* (?) [*y* may originate from **l, *r*] / (II): IS:MC *qəx-*, *qx-* (+ stressed "instrum." suff. *-min*), Sp and MS *qx-* (also with suff.) // NC **qwɨ̃rhV* [// N **kErV* (NB Sa stem II); St. '89 # 86].

(5) BREAST: Wk **xu·ɫ* (or sim.) : No *ḥu·(ƛ)* // NC **Gwắlɦē* 'udder, breast' (> AvA *ʁᵂarHV* > Kar. *ʁori*, etc.).

(6) HAIR (on the head): IS:Th *q'ᵂum* 'head', MC *q'ᵂum-qən* 'head' (**'hair' + 'head'; cf. Samish *qən* 'head', loc.) : MS *q'ᵂom-qən* / CS:Sq *s-q'ᵂum-ay* 'head hair' // NC **q'(w)ăm̃ʔə̄* 'plait, mane; hair'. Cf. compounds: Sa:MC *q'ᵂum-qən* 'head' < **'hair on the head' vs NEC **q'(w)ăm-čV* 'hair on the temples'.

(7) JOINT: IS:Th *q'ᵂət-xᵂəm'* (**'elbow/knee [=joint]' + **'lump'?) / Ts:UC *xᵂut'* 'bent up' // Tsez. **qɔ(n)tV* < NEC **q'HwəntV* 'knee/elbow'. [Note Sa *-t'* : Tsez. *-t-* / *-nt-* : NC **-nt-*]. - See next.

(8) (?) *LUMP: Ts:UC *s-xᵂum=ač'a* 'elbow' (**'lump + arm'?), *s-xᵂum=nač* 'buttocks, hips' (**'lump + leg'?) // Wk:Kw *x̌ím'a* 'buttocks' // NEC **χɦwɨ̃nχV* 'cheek, buttock'.

(9) COLLAR-BONE: IS:Sp *(s-č'im-)aɫ-q'ᵂl-t* (root *q'ᵂl-*) // NEC **qHwŏɫwV* 'neck, collar' (> AvA **qᵂilu*).

(10) (?) HEAD: NWk:Kw *xum-s* // NEC *hq'wĕmV̄* 'horn, head'.

(11) BODY: IS:CO *=ic'aʔ* // NEC **čōrχV*

(12) FAT: NWk:Kw *cnx̌ᵂ-iʔ*, noun > Kw *cénxᵂaʔi* (noun) // NEC (And.-Darg.) **c'ēnχwV* (also **c'ēnλV*), adj.

(13) HEAD: CS:Se *c'əq'* (root; from **c'iq'-* ?) // NWC **sq|'a* / Yen **ciGV* (**c < *c'*) [Cf. NWk:Kw *səq'a* 'above'; cf. also Ath *-ciʔ*, etc.].

(14) MOUTH: NWk:Kw *sem-s* // NEC **ʒ́wĕmV*].

(15) ARM, SHOULDER: CS:Ls *dəx̣* 'arm' (*d < n*) : Sq *nix̣* id. // NWk *n'ik^w-* in He *n'ĭk^w-lá* 'carry on the shoulder' // NC **nHĭwG̲Ā*.

(16) FOREHEAD: Ts:UC *ƛ'ox^w-s* // NEC (AvA and Tsez.) **ƛ'arq'wĕ* > AvA **ƛaq̇^wara* (> Av. *ṭayúr*) / Tsez. **ƛɔq̇ɔ* forehad, cap'. [Sa *-x^w-* may match Av. *-γu-*; Sa **ƛ' < *ƛ'*; Sa *o < *a*].

[=116] UC *ƛ'ox^w-* 'fhd'	Av. *ṭayúr < *ƛaq̇^wara*	Tsez.**ƛɔq̇ɔ* 'forehead'	< NEC **ƛ'arq'wĕ* id.

(17) HIDE: IS:Th *ɬex^w* 'patch' : CO *ɬx^w* 'dress' : Sp *-əɬx^w* : MS *–ɬx^w* 'skin, clothes' // NEC *ɬĕʔƛ́wnɨ-* 'skin (of an animal)'.

(18) EAR: IS:MS *leš-n'* 'hear' (*<*lex*): Ka *leš-ən* 'hear' / CS:Ls *luh* 'hear' // NC **ɬĕHɬe/i* or **ɬĕHe*.

(19) FAT, GREASE: IS:Th *miʕ'^w-* 'grease' // NEC **măɦwV*.

(20) HEAD, FACE: Ts:UC *matin* 'head' // NEC **mət'e/i* 'face' [// N **mEt(')a* 'head, top'].

(21) HORN: Ts:UC *winaw'* (*i* may originate from **i/e/ĕ/ē*); cf. CS:Se *wenaʔəw* // NWk:Kw *weƛ'ax̣* 'horn, antler' // NEC **wĕnƛ'V* 'beak, horn; head'. [**-nƛ'- >* Wk *-ƛ'- :* Sa *-n(V)ʔ-* ?].

g) Shift of [W] In Pre-Salish When Compared with Nc

Sa often shows labials *q^w*, *q'^w*, *x̣^w*, *ʔ^w* where NC has no [w]. Appropriate NC words contain **Cw*, **Lw*. A pre-Sa methathesis may have "simplified" the prononciation: it was easier to use [w] as a part of *q^w*, *q'^w*, *x̣^w*, *ʔ^w* than as a part of **C^w*, **L^w*, so [w] shifted from [C, L] to [q, x̣].

(1) BEND, CURVE: CS:Se *k'^wuc'-* 'bend' (v.) // NEC **kƛ̃c'wɨ* (also **č'ũkwV*) 'curved'.

(2) SHARP: CS:Ls *x̣^wəc* // NC **ɦüʒwĀ* > Tsez. **ʔãč-*; Lezg. **ʔeč:^wa-*.

(3) FLOW, POUR, WASH: IS:MC *c'aw'* 'wash' : Sp *c'ew'*, *caw* 'wash' / Ts:UC and CS:Se *c'əx^w-* 'wash' // NWk *cx^w-* in Kw *cx^wla* 'overflowing' etc. // NC lex. suff. **=Háɕ́wV* 'pour, wash' (> **ɕ́wäHA* ?). [Note that **w* shifts from **C'* to *x̣* in Sa, and to *x* in Wk].

(4) (?) POLE, STICK: NWk *c'wax̣-*, Kw *c'ux^w-* 'insert (pole)', *c'x^w-* 'stab' (cf. NWk *zux^w-* 'log, pole') // NEC **ɕ́'wēχV* 'stick, chip, piece of wood, beam".

(5) SHOULDER: NWk *n'ik^w-* 'carry on the sh.' // NC **nHĭwG̲Ā*.

(6) BERRY: NWk *n'ux^w-* (Kw *n'ux^wa* 'small blueberry') // NEC **niwGV*.

(7) ROCK: IS:Th *ƛ'ix̣^w* 'rock, gravel' // NEC *ƛ̲'wĕhrŭ* (/-l-) 'rock, cliff' [*w*-shift; Sa *-x̣^w :* **-(h)rŭ*].

(8) HARD: Ts:UC *ƛ'əʕ^w* (:*x̣aƛ'e-* id.) / IS:MC *yəʕ^w* (note shift of glottalization *ƛ'* to *ʕ'*; note *ƛ'* : *y*, *yəʕ^w*, *y < *L*) / Ts:UC *ƛ'əx^w* / CS:Sq *ƛ'əx̣^w* / BC *ƛ'ax̣^w* // NC. **ḺwĕrV*. [**w* shifts from left to right, after **r* turns *x̣*]; MC *ʕ* may originate from **r*, and *y* from **L*.

h) Sporadic Spirantization of The Underlying Uvulars *Gw, *Ghw, *Q'w, *Q'hw In Salish

Spirantization of uvulars, especially labiouvulaes, is rather wide spread both in NC and Sa, but this process is much more frequent when the voiced uvular **Gw* is involved:

(1) IS:Th *q'ʷət-x̣ʷəm'* 'joint' vs Ts:UC *x̣ʷut'* 'bent up' // Tsez. **qɔ(n)tV* < NEC **q'HwəntV* 'knee/elbow'. [Note unstable pre-cons. nasal in NEC languages vs possible loss of **n* in pre-Sa].

(2) IS:MC *q'ʷic'-* 'twist' vs. IS:Sh, CS:Sq *x̣ʷəc'-x̣ʷəc'* 'joints' : CS:Se *x̣ʷəc'-q'ʷ-uya* 'wrist' / Ts:UC *x̣ʷuc'* 'bent up' // NEC:AvA-Lezg. **q'HwĕmčV* 'hook, curved' with unstable **-m-* in Lezg. *q̇ǁʷa(m)čV* 'bend, elbow, tip, point'. [NEC **q'-* doesn't undergo spirantization; cf. also next ex.].

(3) STICK: IS:Th *x̣ac, x̣ic* 'wooden' / CS:Ls *s-x̣ac* // Tsez. *ħiš* < TsKh **χ₁ešu, *χ₁ŏšu* < NEC **GHwälćV* 'stick, board; bolt'. [Spirantization and delabialization both in Sa and Tsez.].

(4) DEER: IS:MC *x̣ʷəl(')-* 'buck' / CS:Ls *x̣ʷel* 'deer' // Gin. *ʁʷil* 'doe' < Tsez. **ʁ:ʷel* id. < NEC **Gwăɫā* 'doe, hornless goat' (> AvA **ʁʷalV* 'hornless goat/ram'). [Spirantization both in Sa and in NC daughter languages (Nakh., AvA, Tsez.)].

(5) (?) ASK: Ts:UC *ʔo·x̣ʷaš* (*š* < *x*) // NEC (AvA-Lezg.) **HreqwǍ(r)* > Lezg. **ʔerχʷa*.

(6) EAGLE: Ts:UC *ɫ'ix̣in* / CS:Ls *yəx̣ʷ(-)əlaʔ* [NB *y* < *ɫ*] // Lezgi *leq̇*, Ag. *liq̇* < Lezg. **liq̇ǁʷ* < NC **lHĭq̇'wǍ* 'eagle', etc. > NWC **la(r)qʷa* (> Abaz. *laħʷa*, Ub. *daχʷá*). [Note delabialization in Ts:UC vs NEC:Lezgi-Ag., and spirantization *x̣ʷ* in CS:Ls vs *ħʷ* in Abaz. (and Abkh.), and *χʷ* in Ubykh]:

UC *ɫ'ix̣-*,Ls *yəx̣ʷ*	Lzg. *leq̇* < **liq̇ǁʷ*	A *laħʷa* U *daχʷá*	< WC **la(r)qʷa*	< NC **lHĭq̇'wǍ*

(7) SEW: IS:MC *ɫəx̣ʷ-* : MS *ɫx̣ʷ* // NC **=ilq̇'wVn* 'stick into, sew'.

   We may compare a case (ex. 8) where Sa *-w-* matches NC **-Gw-*, indicating a shift **Gw >* **ɣw > w* (cf shifts of the type *xʷ > w* in Sa languages):

(8) IS:Th *maw-e* 'gossip' (< Sa **maɣw-* ?) // NC **maGwV̆* 'word, sound, song'. - Cf. Sa *ɣ <* **(r)G*, ex. 9. - Altern.: Th *mawe* : NEC **mħārχā* 'tale' > Lezg. **maxʷ*, etc.

(9) IS:Th *məɣew'* 'lynx' // NEC **mHarGVwV* 'tom-cat' (> Lezg. **marq̇:ǀaw* > Ag. *marʀu*). - Cf. NWk:He *mauxwa* 'bob-cat'.

*i)   Reduction of Underlying Clusters In Salish: -Vc < *-Vrc- (*R = N/M, L, R)*

   On many occasions, Sa shows reduction of prehistoric intervocalic clusters to single consonants; the cluster itself may be a reduced form of an underlying sequence *-CVC-*:

(1) [*t < *nt*] IS:Th *q'ʷət-x̣ʷəm'* 'joint' (cf. Ts:UC *x̣ʷut'-* 'bent up') // NC **q'HwəntV* 'knee/elbow'.

(2) [*k < *nk*] GOOD: NWk:Kw *ʔik* // NEC **ĭnk̯wV* 'right, good'.

(3) [*c' < *mĉ*] MOUNTAIN GOAT: NWk:Ha *c'aG* (< **Gac'* ?) // NEC (AvA-Darg.) **Gamĉā* > Darg. **q:ača* (with *č:* in some dialects).

(4) [*c < *Nc < *mVc'*] ANT: BC *qac-qiɫ* // NEC:Nakh. **qēç/ʒ-* / AvA **ʁamça* < NC **q/GāmVc'V* (also 'grasshopper'). [Cf., in North America: Tsimshian *s-g̱ans-g̱oʒinx̄t* 'ant'. - Note also N **K'[u]č'V* 'ant']

(5) [*l < *mɫ*] MOUNTAIN GOAT: NWk:Kw *p'lx̣* (root) // NEC **bHēmɫi*.

(6) [*c' < *rć*] ARM, EMBRACE (etc.): CS:Sq *q'ac'* // NC **qărć'wV* 'shoulder, arm'

(7) [*c < *lĉ*] STICK: IS:Th *x̣ac, x̣ic* 'wooden' / CS:Ls *s-x̣ac* // NC **GHwälćV* 'stick, board'

(8) [*s* < **ls*] TO SCRATCH: IS:Th and MC *qəs-* // NC **qāls̲V* (> AvA. **qas:-*, Darg. **qars:-*)

(9) [*ł/r* < **rH*] COLD: IS:MC *c'əł-* : Sp *c'er* // NC **č'wErHV*.

(10) [*qʷ* <**rq'w*] DIRT: NWk:He *miqʷa* 'dirty, muddy' / NC *mHĩr̲g̲'wV* 'dirt, rust' (Lezg.:Kryz *meq̇*).

j)   A Few More Examples of Simplification of The Underlying Roots In Salishan

Table I shows 9 cases of simplification of original clusters in Sa: Underlying **c'w-/*c'ĥw-/*Hc'w-* becomes *c'-* (and *c-* in a compound) in Sa; **ĥwm-* becomes Sa *m-*; **q'Hw-* becomes Sa *q'ʷ-*, etc.

TABLE I

a EC **Hc̲' wēj mə̆* leg-bone PSa **(s-) c' u̯/a m'* bone	b EC **-c'ĥ wē me* eyebrow CS:Se *-c u m-* eyebrow	c NC **c' ã̄ nHV* arrow No *c' i· ḥ-* arrow
d EC **c' wɨ̄ łĥV* stick, branch IS:MC *c' ə l*, MS *c' i l* tree	e EC **ĥwm ă ĥwā* moist,pool IS:Sp *m o ˤʷ* flow	f EC **q'Hw ĕ mč̣V* curved IS:MC *q'ʷ i c'-* twist
g EC **q'ĥwĕ̆łV* cow, mare IS:MS *q'ʷey-q'ʷay* bison, buff.	h EC **ɬHwemV* liquid (adj.) CS:Sq *ɬəm?xʷ* rain, *ləm?* dew	i EC **mh ă lV* warm (/-n-) IS:CO *mˤ a l* (:maˤl) warm

[To ex. a: Cf. Eyak-Ath **c'em?* 'bone' [] b: EC root is preceded in this compound by **c'ilV-* 'eye' (:CS:Se *c'il-* 'look for') [] c: Altern.: NEC **c̕'ã̄ˤV* 'reed, cane; arrow' [] d: Cf. Wk:No *c'ał-aq* 'branching out' [] g: Cf. Th *q'ʷis-p* [devoicing] [] h: N **LaHm/u/* 'marsh, silt, wet' (St. '89#106) [] i: Cf. NEC:Ts. *mɔʁ:V*]

Cf. some other examples of simplification of the underlying roots in Sa (end of the underlying roots seems to be lost):

(1) EAR, HEAR: IS:MS *leš-n'* 'hear' (<**lex*): Kalispel *leš-ən* 'hear' / CS:Ls *luh* 'hear' (cf. Ts:UC *s-lix-n* 'ear-lobe') // NC **ɬĕHɬe/i* (**ɬ* because of Hurr. *lēlə* 'ear') or **ɬĕHe* (if Hurr. *-lə* is a suff.).

(2) HIDE (Sa has both a regular word and a lex. suffix): IS:Th *ɬexʷ* 'patch' : CO *ɬxʷ* 'dress' : Sp *=eɬxʷ* : MS *=ɬxʷ* 'skin, clothes' // Lezg. **le?*

'skin' < NEC *ɬĕ?/?wnɨ* 'skin of animal'.

(3) SWALLOW, THROAT (etc.): IS:Th *məq'* 'satiate', *məqʷ* 'hold in mouth' (:CS:Ls *bəq'* 'put/hold in mouth, swallow'; *b* < *m*) // NC **mVq'VɬV* 'throat, larynx'

k)   Some Salishan CVCVC-Type Roots and Their Nc Cognates

In many cases, Sa roots of the type *CVCVC* seem to have developed the part *-CVC* from underlying clusters *-CC-*. Some roots show late suffix-like additions.

Ex. 1 seems to show *-CVC* from *-CC-*, as well as a reduction **Gw > q*, possibly, in an unstressed position. - Sequence *-x̌ʷaq'ʷ* (secondary labialization in *x̌*?) in ex. 3 seems to match NC **-rq'w-*. - Sequence *-qiw* in ex. 4 may relate to NC **-gw-*; cf. *-saw-* vs **-św-*; in ex. 5 (note here also *y* vs **r*). - For the process *-CVC < -CC-* in pre-Sa, cf. AvA:Lak. *çiniq* < NEC **c'ã̄n̲q'V* 'lynx, panther' (etc.).

(1) ANGER (etc.): Ts:UC *qəł(ə)x̣-* // NEC **Gwāłħo/ə* 'gossip, offence, anger' (UC *x̣* : NEC **ħ*).

(2) (?) WAR: CS:Ls *x̣ilix̣* // NEC **ŁĕłV̆*. [Sa may show *x̣* vs NC *L*-type cons.; same in NC].

(3) (?) ELK, GOAT (etc.): IS:Th *təx̣ʷaq'ʷ-* (first stem in 'doe') // NEC **dVrq'wV* 'he-goat'.

(4) HORSE, DONKEY: Ts:UC *tiqiw* 'h.' / CS:Sq *s-taqiw* 'h.' // NEC **dhogwā* 'd.' < (?) NC **t'HōgwV* 'hoofed animal' (covering also NC **t'ūgV̄* 'he-goat').

(5) TREE: Cs:Ls *yesawi* 'alder' // NC **rắśwē* 'tree, wood'.

In exx. 2 and 6, auslauting consonants may represent a relatively late addition. - Sa word in ex. 2 (*x̣ilix̣*) seems to show structural and phonetic symmetry, typical for Yokuts (Penutian).

(6) EAGLE: / Ts:UC **ƛ'ix̣in* (?) (:CS:Ls *yəx̣ʷəlaʔ*) // NC **lHĭq̇'wA* (also with **łH-*, **-q-*) > Lezg. **liq'ʲʷ* > Lezgi *leq'* / Darg. **ʔix̣/-liq'an*, loss of labialization, as in Ts:UC?.

(7) LAND, EARTH: CS:Ls *ɬalil* 'to go ashore, to land' // NC **lhĕmᴸ̱wɨ̆* 'earth'. [The underlying cluster **-mᴸ̱w-* is probably simplified to *-l-* in Sa; *CVCVC*-status is acquired by adding *-(V)l*].

Ex. 8 shows *CVCVC* becoming a *CVCC*-root, but it still behaves as a two-vowel root, namely, *CVC[V]C*, - otherwise it would lose the nasal (**-VmC- > -VC-*). - Ex. 9 is usually interpreted as root-type *CCVC*; it is still prnounced as *CVCVC*.

(8) CS:Ls *ɬəbc'-* 'mucus' (*b < m*) // NEC **ƛ̆ămV̆č'V* (/x̣-) 'saliva, pus' > AvA **ƛ̆a(m)ç̇:V* 'saliva'

(9) IS:Th *məɣew'* 'lynx' // NC **mHarGVwV* 'tom-cat' [Cf. Wk:He *mauxwa* 'bob-cat'].

l)   Salishan Roots Which Match N(E)C Lexical Suffixes

N(E)C lexical suffixes frequently match both Sa roots and Sa lex. suffixes. NC lexical suffuxes show genetic links to Sa much more frequently than "regular" N(E)C roots do. N(E)C lex. suffixes may correspond either to lex. suffixes or to regular roots in N(E)C daughter languages.

We may deal with pre-Sa <u>metathesis</u> in exx. 1-4.

(1) [Type *CʷVy* in Sa vs *=iCwV* in NEC] GO: IS:MS *x̣ʷu, x̣ʷuy* // NEC lex. suff. **=ĭχ̣wV*

(2) [Type *CʷVw* in Sa vs *=VCwV* (*-V = -U* ?)] BURN: Ts:UC *kəw, kʷəw* // NEC:East Dag. **=ōgwV* (> Lezg. **ʔok:ʷɨ̆* / Khin. *=ek:-* / *k:-*).

(3) [Type *CʷVC(V)* in Sa vs *=iCCwV* in NC (> *=iCVC* ?)] RIPE(N): Ts:UC *q'ʲʷəli* 'ripe' (<**ilq'ʲʷə*, with *l* from **r* ?) // NC **=ĭrq'wĂ* 'ripen' > NEC:AvA **=ĭq(-Vl)-* 'ripe(n)'. [Cf. frequent *l < *r* in Sa; pre-Sa **q'wirV* ?]

(4) [Type *CVw'* / *CVHʷ* in Sa vs *(? CwVHV <) =HVCwV* in NC (> *CVw*)] POUR, WASH: IS:MC *c'aw'* : Sp *c'ew'* 'wash' / CS:Se *c'əx̣ʷ* / Ts:UC *c'əx̣ʷ* [from underlying **c'wäHA*?] // NC **=Häç̇wĂ* 'pour, wash', or **=Häç̇Ăw* > AvA **č̇:Vb-*. [**w* shifts from *c'-* to *x̣-*. - Note that both Sa and AvA *CVC* matches NC root type *=HVCVw* (rather than *=HVCwV*)].

(5) [Type *CVCʷ* in Sa vs *=iCCwV* in NC] DIE, KILL: IS:Th *ƛ'əx̣ʷ* 'cripple' : MC *ƛ'əx̣ʷ-* 'die, kill' / (?) CS:Ls *ɬəx̣ʷ-* 'hunt' (also IS:MS *ɬx̣ʷ-*) // NEC **=ilχ̣wV-* (/-qw-) 'die' vs **=iɫχ̣wV-* 'kill'. [Note sound symbolism in NEC].

| [=5] Sa:MC *ƛ'əxʷ-* 'die, kill' / ? Ls *ɬəxʷ-* 'hunt' | NEC *=ilχwV-* (/-qw-) 'die'; *=iⱡχwV-* 'kill' |

(6) [Type =VCwV in NEC] WHITE, BLUE: Ts:UC *qʷa/uӽʷ-* 'wh.', *q'ʷiӽ-* 'b.' // NEC *=ĕg̰wӐ* 'yellow' > AvA *q:oʔi-* 'wh., b.' >Av. *q:áħa-b* 'wh.', Chad. *qáħa-b* 'wh.', And. *q:ʷoj* 'b.' (PAnd. *ʔV-q:ʷo-ji-*).

(7) [Type *CʷVC(u)* in Sa vs *=HV-CwVC* in NEC] FEAR: Ts:UC *qʷanu-* // NEC (AvA and Lezg.) *=Hä-GwVn* 'tremble, be afraid' > AvA *=iʁVn-* / *ʁiʁVn-* > Cham. *ʁiʁin-*, Tind. *ʁiʁan-* / Lezg. *ʔäq:/ʷVn-* > Arch. *e=q/ʷin-*.

(8) [Type *CVCʷ* in Sa vs *=iCCwVC* in NC; altern.: Sa *CVCʷ* is a metath. of *CwVC*] SEW: IS:MC *ləxʷ-* : MS *ɬχʷ* // NC *=ilq'wVn.* - Pre-Sa may represent a metath. of the old *q'wil-*.

(9) [Type *wVC* in Sa vs *=VwCwV* in NEC] TO OPEN: Ts:UC *waɬ-a-* // NEC *=ĕwλ(w)V* > Lezg. *ʔäwλɨ* 'unlock'. - (Cf. Ts:UC *waӽ-* 'open (eyes)' // NEC *=ĕwλ(w)V* > Darg. *ʔawx:-* > *ʔabx:-* 'to open').

(10) [Type *CVCʷ* in Sa vs *=iCCwV(C)* in NC] BEND: IS:Th *ɬaq'ʷəw-t* 'bend over' // NC *=ilq'wV(ɬ)*.

(11) [Type *CV* in Sa vs *=VCwV(C)* in NC] DO, MAKE: Ts:UC *wi* // NC *=ăhwV(r)* [ablaut *a/i*] > NEC:Tsez. *=Vw-* / NWC *wə*.

| [=11] UC *wi-* do, make | Tsez. *=Vw* id. | WC *wə* id. < | NC *=ăhwV(r)* id. |

(12) [Type *CVC(V)* in Sa vs *=VCVC* in NEC (> *CVC*)] SUCKLE, CHEW: Ts:UC *c'am-i-* 'suckle' // NEC *=ĕč̣Vm-* 'gnaw, chew' >AvA *č̣Vm-* 'chew' / Darg. *č̣a/m-*.

(13) [Type *CV* in Sa vs *=VCCV* in NC (> *VCVC*)] SPEAK, TELL, TALK: Ts:UC *cu-t, cu-n* (<PSa) // NC *=[ĩ]mcŪ* > AvA *=ocVn-* / WC *c:ʷa*

| [=13] UC *cu(-n)* <PSa | AvA *=ocVn-* 'talk' | WC *c:ʷa* 'talk' | < NC *=[ĩ]mcŪ* 'talk' |

(14) EYE, LOOK: Ts:UC *=us-i-* 'face, eye', *-al-us* 'eye' // NEC *=HimsV* 'to look' (> AvA *-us-* > *-us-* 'to search' in modern AvA l-ges) [cf. NEC *c'il-* 'eye' : Sa *c'il-*]

| [=14] Sq *=us* 'eyes',UC *=us(-i)-* | *-us-* < AvA *-us-* 'to search' | < EC *=HimsV* 'to look' |

(15) [Type *yVC* in Sa vs *=iCCwV* in NC] (TURN) AROUND: IS:Sp *yir* (and a borrowed *yal* ?) / Ts:UC *yəl* (*l* < *r*) 'around' // NEC *=irʁwV* 'roll, turn around'.

(16) [Type *yVC* in Sa vs *=iCVC* in NC] SPIN, WEAVE: CS:Ls *yiq'-* 'weave, knit, spin' / Ts:UC *yəqʷ-* 'twist, spin' // NC *=iqăr* 'weave' (verb preserved only in WC and E.Daghestan languages) > NEC *wiqVrHV* > *qwVrHV* '(smthg) woven' > Darg. *qʷa/r* > Chir. *qu/r* 'horse-cloth' (etc.).

(17) [Type *yVC* in Sa vs *=iCwV* in NC] RETURN: Ts:UC *yac'-* 'turn back, turn around and come back' // NC *=ić̣wӖ* 'come, return'.

(18) [Type *ʔiC(C)* in Sa vs *=iCwVC* in NEC] EAT: Ts:UC *ʔiɬn* // NEC *=iⱡⱶwVl* 'feed on, eat' (> Tsez. *ʔhe/n- / *ʔhe/l-*).

(19) [Type *ʔVCʷ* in Sa vs *=iCwV* in NEC (> *=VCwV*)] GO: CS:Ls *ʔuӽʷ* // NEC *=iχwV* / *=igwV* 'go, come, enter' (> Tsez. *=uχ:ʷ*).

(20) [Type *ʔVC* in Sa vs *HVCCV(C)* in NEC (> *=VC*)] SEE: Ts:UC *ʔəχ, ʔa-ʔχn* // NEC **=Hāṛg'V(n)* 'see, find' (> Tsez. **=r̃q̇-* / Darg. **=ah̠/-*).

(21) [Type *CVC^W* (with redupl.?) vs *=VCV* in NEC (> *CVCV* with redupl.)] QUICK: Ts:UC *χax^W* 'quick, hurry' // NEC **=ă̆χV* 'quick, swift' (>AvA **χ:iχ:V-* > Cham. *χ:iχ:u* id., Cham. Gig. *χ:eχ:a* 'quickly'; similar in other AvA languages). [Sa almost equals AvA].

[=21] UC *χax^W* 'quick'	Cham. *χ:iχ:u* 'quickly'	< AvA **χ:iχ:V-* <	EC **=ă̆χV* 'quick'

m) Nc Words With *R and Their Cognates In Sa Languages

One of a few significant changes from PSa to individual Sa languages is the evolution of the underlying **r* and its variants. Even in conservative Sa languages, the reflexes differ, being realized as *r, l, ł, ƛ', y,* (in many cases:) *x, ʕ, ʔ, ˤ;* consonants *χ x, ʕ, ʔ* may be labialized ([w] represents a neighboring labial vowel or an undelying labial consonant).

(1) DIRT: Ts:UC *q'aχ-* 'mud, smear, paint' // NC **q'ă̆rē* (**r* > *χ* in Sa?).

(2) BANK: MC *χər'-χər'-t* 'steep bank' (root metath.?) // NEC **rēGV*.

(3) DAY: Ls *ləχ* // NC **rĭhV*. [Sa *l* may originate from **r*].

(4) HARD: PSa **ƛ'aʕ^W/χ^W-* > Ts:UC / CS:Sq *ƛ'əχ^W* / BC (Nu) *ƛ'aχ^Wƛ'əχ^W* vs IS:MC *yəʕ'/w* // NC **ḺwĕrV* ([w] shifts to the right, to a more "comfortable position", after **r* turns [χ]; there is also a shift of glottalization from *L' - H* to *Y - H'*).

(5) WOOD: CS:Ls *yesawi* 'alder' // NC **ră̆śwī* 'tree, wood' (Sa *y-* < **r*, **-Sw-* becomes *-saw-*). [(6) BREAK: IS:Th *maʕ'* : CO *mʕ(w)* : MC *maʕ'/w* : Sp *maw'* // SC:ST **muar* 'bite' vs N **murV*, St. '89 #127 (shift of the type **mwar* > **marw* in pre-Sa?)].

[(7) (BE) VERY SICK, DIE: IS:Sp *miχ^W* : MS *miχ^W* / CS:Ls *miχ^W* (< [mIχ/rU]?) // N **mă̆rV*]

There are many other Sa roots which can be linked to Kartv.; some of them may indicate old SC borrowings to Kartv., but most forms seem to reflect genetically related, inherited roots.

The following exx. cover the shift from an underlying cluster of the type **X(w)r* to Sa (labio)uvular sounds, velar sounds (including *ɣ*), *ʔ* (> '); relatively seldom to *r - ł - y.* (This is similar to the development of **r* in Sa)

[(8) OLD: IS **kix* 'close elder fem. relative' // SC:ST **Kri* // N **kirHA* (St. '89 #50)].

(9) HORN: (I) IS:Th *q^Way'* (*y* may originate from sonorants of the type *y, l, ł, λ', r, -'* in *-y'* may indicate an underlying **H*) / (II): IS:MC *qəχ-, qχ-* (+ stressed "instrum." suff. *-min*; loss of [w] in an unstressed root in a compound *C(V)C-CVC*) : Sp and MS *qχ-* (with suff.) // NC **qwĭrhV* (Sa stem I **q^Wa/ir'* seems to match NC) // N **kErV* (NB Sa stem II); St. '89 # 86.

(10) COLD: IS:MC *c'əł* 'cool off' : Sp *c'er, c'al*; cf. Ts:UC *ciχ,* etc.   // NC **č'wErHV*.

(11) BOY: IS: CO *t-twi-t* : MC *tw'i-t* : MS *t-t'wi-t* : Th *təwi-t* (dimin. *t̠ʔu-t* 'little boy' may come from a Sa root for 'little') / CS:Ls *tawix^W-* 'child/offspring' (root in pl. form 'children') // NEC **dwirχE* 'boy, son'. - As for IS:MC *t'aʕ'/w-* 'little', Th *t̠ʔu-* (etc.), cf. NC **t'iHV* 'small, little' (possibly = NC **t'iHU* > AvA **t'VH^WV-*).

(12) (?) GROW(TH): PSa *ƛ'aχʷ (as both in IS and CS) 'grow(th), old' > CS:Ls *ƛ'aχʷ 'grow(th)' - Also IS:CO ƛ'χ : MC ƛ'əχ- (root) 'grow up' / CS:Se ƛ'aχ-aχ *'grown up' > 'old person' // NEC *ƛ'orχwV 'sprout'. (Sa *a is shown by both main branches: IS:CO and CS:Ls).

(13) ROCK: IS:Th ƛ'iχʷ 'rock, gravel' // NEC ƛ̲'wĕhru (/-l-) 'rock, cliff'   [Note *w-shift, from left to right in pre-Sa].

(14) (?) INTESTINE: MC p'iʔ-p'iʔ 'guts, int-s' // NEC *bⁿĕrƛ̲'V 'large intestine'.

(15) LYNX (etc.): IS:Th m(ə)ɣəw   // NEC mHarGVwV 'tom-cat'.

(16) TELL A STORY: IS:CO m'ayʔ-, m'ay'aʔ- : malχaʔ 'lie' (a different root?) / MC may'- (root) 'tell a story, confess' // NEC *mˁ/ħārχwā 'tale'. [CO m'- seems to match NC *mˁ/ħ-].

II.   CONCLUSION

Sa(-Wk) languages seem to originate from a prehistoric language (languages) which was (were) very similar to NC (being later "torn away" as a result of some prehistoric migration, ending up in the North-West America?). Sa languages may, or may not, be a part of NC languages [as represented by NCED]; on occasions, they show close parallels either to AvA, or to Lezg., or to NWC languages: for instance, Sa:Sq ɬəm(ʔ) 'dew' (cf. ɬəmʔ-χʷ 'rain') matches easily AvA *λ:imV- 'liquid' (as in And. λ:emi) and Lezg. *λ:ä/mä- (but not Lak. and Darg.), as well as the more complex proto-form NEC *ƛHwemV 'liquid' (adj.); this cannot be a coincidence, there are too many such precise correspondences. (cf. also numerous Wk-NC exact matches, such as He qˈʷen-Gʷa- 'throat' vs AvA *q̇:ʷan-q̇:ʷa < NEC *Gwan-G̲wa 'throat'; or NWk = Kw cnχʷ- 'fat' vs NEC = AvA-Darg. *c'ēnχwA 'fat'; or No kʷitħ- 'tap, knock' vs AvA *kʷirṭa 'hammer' [> Tind. koṭa, etc.] / NWC *k:əṭʷV 'axe').

We would expect such state in a separate group(s) of languages which are closely related to the languages in question (i.e., NC). Lexico-grammatical material of Sa languages - which connects these languages with NC - is enormous.

Beside Sa-Wk languages, there are several other languages in North Amewrica which are related to North Caucasian (or, broader, Sino-Caucasian) languages of Eurasia: first of all, some languages-"isolate": Chemakum, Kutenai, etc.; Eyak-Athapascan, Tlingit, Haida; Algic (possibly also Keresan and Siouan), and others.

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Marital Discord in Anita Desai's Novels

By Mohini Sharma

Abstract - Women's inscription continues to engage a place of substance for more reasons than one. It has questioned the accessible viewpoints which are fundamentally patriarchal. All women's writing need not necessarily be feminist. But feminist interpretations can appear through absence and denial. The sufferings of Indian women, marital discord, existentialism, annoyance are the major themes of feminist writing. Female quest for individuality has been a pet theme for many a woman novelist. After the Second World War, it has become possible that women novelists of quality have become inspirational for Indian English fiction.

MARITAL DISCORD IN ANITA DESAIS NOVELS

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Marital Discord in Anita Desai's Novels

Mohini Sharma

Women's inscription continues to engage a place of substance for more reasons than one. It has questioned the accessible viewpoints which are fundamentally patriarchal. All women's writing need not necessarily be feminist. But feminist interpretations can appear through absence and denial. The sufferings of Indian women, marital discord, existentialism, annoyance are the major themes of feminist writing. Female quest for individuality has been a pet theme for many a woman novelist. After the Second World War, it has become possible that women novelists of quality have become inspirational for Indian English fiction.

Talking of fiction of more recent years Anita Desai is reported to have told her interviewer Atma Ram: "There is so little of it... There simply isn't enough, in the sense of variety, value, interest, significance."[1] But now we have a string of novelists who have made a blotch in the dome of Indian English fiction. They include Kamala Markandaya, Rama Mehta, Shashi Deshpande, Anita Desai, Dina Mehta, Shobha De, Bharathi Mukherjee, Namita Gokhale and Arundhati Roy, to name a few. They have written mainly on women related issues. While writing they touched major aspect of women's life i.e. marriage. G.B. Shaw, an Irish playwright and a co-founder of the London school of Economics, described marriage as an institution that brings two people together. He said that marriage should be based on intense, profound love and couple should maintain their ardor until death does them apart. Kapadia, while discussing the concept of Hindu marriage, writes: "Marriage was a social duty towards the family and the community, and there was a little idea of individual interest. The social background provided by the authoritarian family afforded no scope for the recognition of any personal factor, individual interest and aspirations, in the relation between husband and wife" (Kapadia, 1958, p.169). The works of these writers suggested penetrative insight into the intricate issues of life and also expressed social, economic and political upheaval in Indian society.

Marriage can be defined as a legal and social certified union between spouses which is legalized by customs and beliefs that recommend the rights to the partners. It refers to the rules and regulations which define the rights and duties after marriage. Marriage signifies the equal partnership and intimate union between a male and a female. It is a strong association which connects not only two individuals but also builds up a relationship between two families. It brings stability and essence to human relations, which is incomplete without marriage. Its strongest function concerns with the care of children, their upbringing and education. The concept of marriage varies from culture to culture but its role is same i.e. union of two opposite sex. This bond is lifelong and special.

In marriage two individuals with often-different backgrounds come together. The thinking, attitudes, mindsets and behavioral patterns cannot be expected to be similar or exactly matching. It naturally takes some time to know and understand each other. Husband and wife after marriage have to make efforts to adjust to one another's tastes and temperaments by subordinating personal gratifications and by making compromises between themselves rather than breaking with each other in the event of differences and dissimilarities. The understanding, resulting in compatibility in marriage, can thus develop only gradually.

While marriage is very important for both men and women in India, it effects a less essential adaptation in the life of the male. In most cases, male continues to live in his original house and marriage does not influence his roles as a son or a brother. His privileges towards life will be the same. No doubt he has to handle a new responsibility in his life, but that will not change his entire life. He will become the head of the family and this aspect will work in his favor completely.

On the other hand, life of women after marriage undergoes significant transformation. She has to leave her parent's house and move to a completely new environment. She has to build relationship with all the close relatives of her husband. Her role is more definite and her duties are more specific than those of the husband and she has to adhere to the set pattern of conduct.

Indian culture gives supreme importance to life of married women and associates several important responsibilities with it. Indian mythology describes a married woman as life partner who has to play fourfold character: she is ardhangini, one half of her husband, symbolically speaking; sahadharmini, associate in the implementation of human and celestial goals; sahakarmini, a part to all her husband's deed and sahayogini, a complete cooperator in all his endeavor. Husband and wife mutually are called dampati, joint holders of the house, sharing work in terms of their genetic, emotional and individual dharma.

Over the centuries roles of married Indian women has undergone several transitions. Traditionally

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a married woman had to take care of her husband and his family. In the social structure of the tradition – oriented family, the typical pattern of husband-wife relationship was male dominance and female dependence. The marriage of Indian women was built on an economic foundation. The division of labor, resulting from the inescapable fact that women bear children and men do not, determined the necessity for this. If a race was to survive, it had to produce, and rear to maturity, enough children to perpetuate itself. In those times, it was a matter of life and death to a woman, tied down with bearing and rearing children. Centuries of traditions have made the Indian women the most unselfish, the most self-denying and most patient women in the world, whose pride is suffering. It is this pride which sustained marital harmony or at least did not allow marital adjustment to become a problem.

Though the traditional conceptions regarding the status and role of husband and wife are slowly changing in contemporary Indian society, the tradition-oriented conceptions still largely prevail. Today's married working women are facing a great challenge to maintain a balance between personal and professional life. The process of industrialization and urbanization has brought about socio-psychological changes in the attitudes and values of the people of this country, especially among the urban population. The opening-up of endless opportunities to married women outside their homes has brought about a widespread feminine unrest. The attitude towards marriage among educated women has changed. Desai writes: "More and more women consider self-respect and the development of personality as necessary goals of life."

With the new strains and challenges that have emerged from the Indian family, the life of married women has been going through an evolution. It has been wavering between traditional and western models. The fast-changing social and family environment has thrown up new challenges for married couples. The educated women of today living in urban areas are liable to develop a marked tendency to become extraordinarily conscious of their individuality and individual status and are prone to have developed egos. The attitudes of spouses towards each other's role and status might be of considerable importance for marital harmony or disharmony. The decline in harmony can be associated with emphasis to individualistic, materialistic and self-oriented goals over family well-being. And this later takes the shape of marital discord.

Marital discord is a problem or lack of synchronization in the marriages. It symbolizes a breakdown in the conciliation and co-operation of the married couples. Usually, marital discord originates when enmity develops among the partners by internal and external manifestations like partition, physical aggression and vituperation. It is a process that begins before physical separation and continues after the marriage is legally ended. Marital Discord is a very effective stressor that can prompt individuals to enter stages or engage in behavior that will lead them to have psychotic or organic features. It is a significant predictor of subsequent delinquency and depressive symptoms for married couples. It is evident that marital problems are more likely to cause depression than depression is to cause marital problems.

Marital discord is as old as the organization of marriage itself, even if it has diverged from time to time and from person to person. In the pre-industrial period, men and women who came jointly in marriage shared intellectual values, mutual dedication, belief and hope which subordinated the interests of the individuals resulting in the smooth relationship of the family. There were tensions in their marital relationship too, but the ethical and religious convictions, economic belief and the fear of social condemnation kept them together.

Discord within marriage is a strong catalyst of marital suspension. However, in context in which divorce is rare and stigmatized, we might not expect marital dissolution to be as sensitive to marital discord. For examples, instead of dissolution occurring due to a general lack of emotional completion, marital dissolution may require more repeated or severe discord as perceived by at least one the spouses.

Marital discord in marriage is not new to India as well, and it has existed at all era in well-known history. But separation was resorted to only in severe cases where there was intolerable malice, abandonment, mental illness, sterility, and disloyalty. In the wake of the industrial mutiny, marital discord has come to presume greater importance. Men and women who came together in marriage lacked knowledge of various psychological and social aspects of life, the proper understanding of which alone make sure peace, flexibility and self-control. In the commercial age, the increasing liberty of married woman has pulled her further apart and has changed the concept of marriage. In the words of Virendra Kumar "from stability, permanence and indissolubility to discord, separation and divorce" (Kumar.1978:25). Frequent marital discord can lead to a growing dissatisfaction for the partners involved, which force people to consider alternative to remaining married. For example, a person who handle marital dispute in a regular pace, may grow dissatisfied and try to live life independently.

Disparity and dissatisfaction are two types of marital discord that entail a particular level of severity, which can influence marital outcomes. Disparity in married life refers to age difference between husband and wife. When a young woman married an older man and he is unable to fulfill her desires physically and emotionally and always behave like an instructor, conflicts arise. He behaves according to his age and also because he is elder to her, he act maturely which a woman can't accept. Due to which marital discord

occurs. Dissatisfaction, on the other hand, means the condition or feeling of being unsatisfied in marriage. Today's women are trying to create identity for themselves. They are becoming more independent and have successful careers. In competing with the world, they are trying to maintain balance between their family and professional life. This at times becomes difficult to achieve which is unacceptable to men and this creates dissatisfaction in relationship. Marriage dissatisfaction seems to be on the rise in today's way of life.

Either type of marital discord can have a negative consequence on developing children. One of the most awful things to a child is the possibility that their parents may break up. In the heat of marital discord, many people fail to distinguish the intense fear aggravated in their children. The emotional withdrawal of the couple can have either of the two effects on children: Firstly, children become fearful of parents disengagement leading to an eventual breakup of the family home. Secondly, children learn emotional disengagement as a strategy for dealing with challenging interpersonal situations. Learning the habit of emotional disengagement leads to unhealthy interpersonal relationships for children in the present, and also later in life as adults. Further, children who have adopted the strategy of emotional disengagement often have difficulty being empathetic to the needs and concerns of others.

The concept of marital discord dominates the contemporary literature, may it be of British, American or Indian source. It is one of the fundamental themes in the works of Nayantara Sahgal, Kamala Markandaya, Virginia Woolf, Raja Rao, Bhabani Bhattacharya, Anita Desai and others.

Anita Desai has highlighted marital discord as a serious concern in her works. She humbly admits that she is allergic to writing social novels. However, she is involved in the problems of marital discord and the insincerity, the faithlessness and the soul- destroying, grinding process of compromise which accompany it. Anita Desai while choosing marital discord as a theme, highlights how the lack of ability to put bare one's soul and convey freely one's fear and agony result in the snap of communication between husband and wife. Unusual attitudes, individual complexes and fears add to this distancing between the husband and the wife resulting in conjugal disharmony. In each of her novels, we encounter traumatic experiences of married lives. Each novel, maintaining the basic features of marital discord, presents different features of the problem to which Mrs. Desai gives new aspect and visualization. She bravely puts ahead the fact that in society, marriages usually pursue the jungle law of the survival of the fittest and being physically stronger, man survives. In her novels, marital discord is reflective of the social parlance. Excessive bondage and high level of restrictions imposed on a girl who recently parted away

on her parents, hits her psychology leading to excessive frustration. This frustration emerges out in different forms like suicidal tendencies, non-adjustments, marital discords, psychological irritation and many more. Hence society and its restricted canvas play a great role in dealing with the girl's psychology. In the novels of Anita Desai, most of the protagonists find themselves trapped in marriage. Desai comments: "There are those who can handle situations and those who can't and my stories are generally about those who can't. They find themselves trapped in a situation over which they have no control."[2] All her characters fight the current and struggle against it. They know what demands are and what it costs to meet them. There is an effort, in the novels of Desai, to represent and understand the feelings, thoughts and doubts, which remain, locked up within the inner recesses of isolated female heart. Anita Desai's novels represent intense study of the personal life, the conflicts and anxiety which the females face. The characters of Anita Desai are trapped in the web of unreceptive circumstances.

Anita Desai's robustly outspoken manner of propagating the typically unconventional but painfully realistic thesis that the institution of marriage is increasingly taking the shape of the dead albatross around the necks of the modern, emancipated self-respecting women. Desai focuses on the personal struggle of middle-class women in existing India as they endeavor to prevail over the societal limitations forced by a tradition-bound patriarchal society. She has specifically mentioned middle-class women, with which she clearly indicates to such women who are traditionally bounded with certain restrictions of family and society. Her central theme in many of her novels has been portrayal of women's viewpoint, alienation of middle class women and tension that crops up in middle class families. Her novels, with a touch of feminist concern, portray the failed marriage relationship which often leads to disaffection and lonesomeness of the characters. She writes for the woman who is always dominant initially by father and then by husband.

Women have been moved from different stages of life and the novelist sharply focuses upon the emotional reactions of the woman as she experiences these segments. She may be called the spokesperson of our culture as she authentically conveys its problems, uncertainties, complexities and paradoxes. She is an expert in depicting the reaction of women towards a given situation, for example, apathy of parents, ill treatment by in-laws, and indifference of the husband. She describes the Indian woman as a fighter, a sufferer, a brave woman and in later novels eventually a winner because of her determined spirit and attitude of compromise.

Anita Desai's works are directly related to social realities. Social realities are related to new family norms in which it is difficult for a girl to adjust or deal with the

situations and circumstances. But Anita Desai does not reside like others on social concerns. She explores deep into the forces that condition the growth of a female in this patriarchal male subjugated society. She examines social realities from psychological viewpoint without posing herself as a social reformer. Her novels are studies of the inner life of characters and her talent lies in the description of minute things that are usually ignored.

Her women are in everlasting pursuit for a consequential life. Anita Desai states that all her writing is "an effort to discover to underline and convey the true significance of things."[3] This explains her involvement with her characters. Her protagonists suffer strongly because of their fruitless attempt to find poignant contact, response and understanding. Anita Desai's novels are in tune with her idea that "a woman writer is more concerned with thought, emotion and sensation."[4] In her writings she has touched upon depression, time apart, sex, household responsibilities, irritating habits, large family circle, expectations, and family decision making as the reasons which lead to marital discord.

- *Depression:* It is a condition of mental disturbance, severe dejection, accompanied by feelings of hopelessness and inadequacy which create difficulty in maintaining interest in life. Same is the condition of Anita Desai's women characters who deal with frustrations, depression, and rejection in their life. They like solitude and privacy. Anita Desai is concerned with the depression and oppression of these intensely introverts female characters that are unable to vent their emotions. As in *Cry, the Peacock,* moving from one pit of despair and depression to another, Sita's feeling of hopelessness and dejection is depicted by: "All order is gone out of my life. There is no plan, no peace, nothing to keep me within the pattern of familiar everyday life." (79).

- *Time Apart:* Time apart and a lack of worthwhile time with each other serves to get people out of sync. This makes life unbalanced and creates issues which results in marital discord. In the novels of Anita Desai, major reason of marital discord is lack of time given by the male characters to their wives. As in Gautama's, in *Cry, the Peacock,* busy profession spares him no time for his family. With no vocation to occupy, Maya broods over the coldness of her husband: "Telling me to go to sleep while he worked at his papers, he did not give another thought to me" (19). In *Where Shall We Go This Summer?*, Sita, in spite of living under the same roof for twenty years and parenting four children they hardly spend time with each other and they always remain like "an ill-assorted couple lacking altogether in harmony in their lives." (Madhusudan Prasad, 65)

- *Sex:* Regularity, quantity, quality and infidelity are all frequent cause of hassle and dissonance in marriage. In reference to Anita Desai's *Cry, the Peacock,* the root of Maya's distress is her marriage, is his disconnected and aloof behavior to the amount of not fulfilling her physical and emotional desires. "A continuous frustration of the body's sexual needs can be disastrous to somebody like Maya, given her fierce instinctuality." (M. Rajeshwar, 1998:23)

- *Irritating habits:* Irritating habits of partner incite impatience or anger. At times, people find some of their partner's habit undesirable and thus causing friction in relationship. In *Cry, the Peacock*, Maya, the central character of the novel, who has failed to grow out of her childhood, lives in a world of fantasy and fairytale that is far removed from reality. This irritated Gautama who was rather a mature man.

- *Large Family Circle:* Large family or in other words 'joint family' comprises of married couple and husband's other relatives. Life for a newly married woman becomes difficult if in-laws don't give her necessary support and space. It gets difficult for her to adapt in new environment as she comes out of the protective shell of the parental family. In case of Monisha in *Voices in the City,* her life is in a state of depravity due to the domination of her in-laws. Repeated comments from her in-laws on her inability to conceive makes her go through psychological miseries.

- *Expectations:* It is a strong belief about what might happen in the future. Especially in marriage, spouses have certain hopes and expectations from their partners. The difficulty with expectations is that they are often poorly defined and sometimes completely unknown. And unknown things generate curiosity. Most of the people idealize marriage and become disheartened once those prospects aren't met.

- *Family Decision Making:* It relates to important decisions related to family; for e.g. decision involving child planning. For Example: - In *Where Shall We Go this summer?* When Sita came to know that she is fifth time pregnant, the intensity of the feeling of obsession is apparent in her constant fear of child-birth. She feels a strong revulsion as her husband was confused and puzzled. She herself takes a quick decision that she doesn't want to have the baby. This decision makes their married life disturbed.

- *Conflict:* It is a serious disagreement or argument or eternal conflict between the sexes. After marriage when men do not behave according to the expectations of women and vise-a-versa, conflict is obvious. In *Where Shall We Go this Summer?* , Sita's husband gets irritate when Sita decides to go

to the island in pregnant condition. He says "Not much longer to go now, Sita, it'll soon be over. You are doing a blunder. " (Anita Desai:1975;21) But she wasn't ready to listen and in frustration she says "I am trying to escape from the madness here, escape to a place where it might be possible to be sane again." (Anita Desai:1975;23)

- *Isolation:* Isolation in Anita Desai's novels was a significant cause of Marital Discord. In the novels, isolation operates at two levels- physical and mental. Physical Isolation may be within the wall of the house in which women is alone and nobody is there to care for her and mental isolation occurs when a woman feels that her husband does not care about her. In Desai's *In Custody*, the problem between Deven and Sarla is the lack of togetherness. She expects her husband to take care of her with continued responsibility. Because of opposite temperament, they hardly spend time with each other. Thus making Sarla go through mental trauma and live an isolated life.

- *Lack of Communication:* Husband- wife alienation ensuing from lack of communication and unpredictable inappropriateness form a very important issue of Anita Desai's novels. Anita Desai's women long for love and unity of the strength which they recognize as the panacea of the troubles of the world. Their refusal to cooperation and surrender and the incapability to accept their partner's perspective, unavoidably results in separation and isolation. As in *Where Shall We Go This Summer?*, Sita finds herself alienated from her husband due to lack of communication. She remains an ignored personality. She creates a world of her own which she fills up with extraordinarily sensitive beings. Lack of understanding and incapacity to strike a sympathetic chord with Raman (her husband) leads to discord.

- *Domestic Violence:* As we would mostly assume, domestic violence is not limited to physical violence only. Emotional abuse and economic deprivation can also be categorized under domestic violence. This has also become a significant concern leading to marital discord.

Anita Desai thus highlights significant issues about the complexity of human relationships as a big contemporary problem and human condition using various reasons leading to marital discord. In her novels, like, *Cry the Peacock, Where Shall We Go This Summer?, Voices in the City, and In Custody* she depicts the fruitless marriage relationship which frequently leads to separation and isolation of the characters. The conception of dysfunctional marriage is treated in Desai's first novel – *Cry, the Peacock*.

Cry, the Peacock portrays the psychic uproar of a young and sensitive girl Maya who is disturbed by a childhood prediction of a fatal disaster. The novel is about Maya's cry for love and relationship in her loveless wedding. The peacock's cry is an implication of Maya's distressed cry for love and life of involvement. It "explores the turbulent emotional world of the neurotic protagonist Maya who smarts under an acute alienation stemming from marital discord and verges on a curious insanity." (Madhusudan Prasad, 1981: 3). In this novel, Maya, whose obsessed condition is brought about by multiple factors, include marital discord and drabness and psychic disorder. Desai looks in to the cause for marital discord and mention how such discord influences the family. Most of the times, the inability of an individual to be responsive to the behavior patterns of her partner leads to tension and stress in the relationship, while sometimes it is on adaptation of various levels of affection that strained relationships occur. This novel explains both husband and wife relations in depth. It has been mentioned that both have strained relations because of their incompatible attitude. Maya is pensive, receptive and touching, while Gautama pragmatic, insensible and lucid. Maya is prosaic and high-strung Gautama isolated, thoughtful and inaccessible. Maya has gentleness, quietness and affection, Gautama is rigid and bitter. The marital bond that binds the two is very brittle and shaky; the growing tension between them reaches its climax when Maya kills Gautama and then commits suicide. Maya is a convict of the past, lives almost eternally in the shade of world of memoirs, which overwhelm her. Gautama, on the other hand, lives in the present and accepts reality and facts even though they are not very beautiful. On the converse, Maya never tries to admit the truth, but she wants to live in her thoughts and fairy world. She keeps on recalling her childhood days and the love her father meted out to her. Maya herself is in two minds about her bond and love with Gautama as she always seeks other father in her husband. On other occasions she looks at her marriage as a fiasco as she says "broken repeatedly and repeatedly the pieces were picked up and put together."[5]. The incompatibility between them emerges from their attitudes and approaches to life. With his pragmatic and practical attitude, Gautama fails to respond to Maya's emotional needs. She is conscious of the insurmountable impasse between them. Sensitive Maya is awfully distressed and loses her mental calm at the death of her dog and Gautama neglects emotional yearning of Maya and says that he would bring another dog for her. This emotionless behavior makes Maya brood over Gautama's insensitivity – "Showing how little he knows of my misery or how to comfort me". (Cry, the Peacock, p.14). Gautama is so near to her yet so far. This gap in communication coupled with her obsession with the albino astrologer's prophecy makes her an emotional wreck.

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Not only Maya, Desai has used other characters as well to emphasize on issues of discord. Leila, Maya's friend, married a tubercular patient for love. She rages and raves at the mockery of the marriage, yet forbears all childish vagaries of her husband.

Both marriages point out that qualities and shortcomings, capability and weaknesses of husband-wife and projects how they have not cautiously and deliberately been balanced to make a relationship successful. Similarities between the attitude of both husband and wife to life and things in general play important role in making their conjugal life successful. General situations in society are such that no proper time or thought is given to these affairs. It results in conflicts, desperation, separation and loneliness. Women who are treated casually become sufferers of these clashes. Their reliability and traditional approach to them cause alienation in their lives. They struggle against strong, negative, soul-killing circumstances but in vain. They become hopeless, desperate and nervous. Committing suicide, running away or living separately are the only solutions visible to them. The fact that ultimately Maya turns insane and kills her husband may contain an indirect comment on their different values of life. The novel becomes a fascinating psychological study of neurotic fears and anxieties caused by marital incompatibility and disharmony.

Madhusudan Prasad briefly alludes to Maya as a neurotic figure: "In *Cry, the Peacock,* Desai explores the turbulent emotional world of the neurotic protagonist, Maya, who smarts under an acute alienation, stemming from marital discord, and verges on a curious insanity."[6] He partially agrees with discovery of Maya's neurosis in the novel based on 'marital discord' arising out of her 'morbid preoccupation with death' and it shatters the very identity of 'women in our contemporary society dominated by man in which woman longing for love is driven mad or compelled to commit suicide.' In his opinion, the blame should not be put on Gautama's shoulders. Maya's psychosis does not completely occur out of 'marital discord' in which Gautama is utterly to be held responsible. On the converse, he dreadfully tries to understand her problem. Furthermore, in her hours of anxiety Gautama is very much worried about her troubled mind and acts as a nurse. Therefore, she admits that he is "her guardian and protector."[7] The marital discord arises out of her neurotic traits in the face of which she is herself helplessly struggling to disentangle. The novel sensationalizes the fight of life and death of Maya with her irrational personality. Similarly Srinivasa Iyengar says *Cry, the Peacock* is really "Maya's effort to tell her story to herself, to discover some meaning in her life, and even to justify herself to herself."[8]

In *Voices in the City*, Anita Desai's main concern is chiefly with human beings and their important bonding and how in the absence of meaningful relationships a person suffers. She probes the psychic coercion that may affect an individual in forging long term relations and how an individual is exasperated if he is not capable to form such relationships. The theme of partition is treated in terms of mother-child relations which itself is an effect of discord in husband-wife relationship. Monisha live a fragmented and famished life. She is estranged from her mother as well as her husband. Her association with her husband is marked by loneliness and lack of communication. Jiban (her husband) thinks that a woman's most important role is to take care of children and household jobs under the supervision of mother-in-law. He has no time for her and no desire to share his sentiments as he is quite busy in his professional life. Monisha's mis-matched marriage, her lonesomeness, unfruitfulness and pressure of living in a joint family with an insensible husband pushes her to breaking point. The element of love is misplaced in her life and at last she commits suicide.

If Maya`s misfortune in *Cry, the Peacock* emanated from her fascination with a father figure, Nirode`s (Monisha's brother) calamity lies in his love-hate bond with the mother. The marital discord transforms Nirode's parents into mental monsters. The father turns into a drunkard, debased and dishonorable creature absolutely different from an easy-going, sports-loving and fond father. The mother is transformed from a sweet, sensitive, accomplished beauty into a coldly, practical and possessive woman having no human warmth and tenderness even for her own children. Anita Desai presents through these images that at best marriage is a farce, at worst it is a kind of disease that destroys body, mind and soul completely.

Anita Desai's another novel *Where Shall We Go This Summer?* (1975) is similar to her first novel *Cry, the Peacock,* and focuses on marital dissonance which accentuated the perceptively highly strong nature of their protagonists. The mismatched couple of Raman and Sita are confronted with the same problem of discord. Sita's marriage to Raman was not based on proper understanding and love between them. Desai gives the explanation as "and finally- out of pity, out of lust, out of a sudden will for adventure and because it was inevitable, he married her." (99) Sita represents a world of sentiment and feminine sensibility while Raman is a man with an active view of life and the sense of the practical. Sita is a restless, responsive middle-aged woman with unstable and emotional reactions to many things that happen to her, she always wants to escape reality and does not want to grow up and face the responsibilities of adult life. Raman represents wisdom, shrewdness and an acceptance of the norms and values of society. He is brisk and precise in dealing with the business of life. He is unable to understand the hostility and passion with which Sita reacts against every unpleasant incident. His response to his wife's recurrent outbursts is a mixture of bewilderment, tiredness, fear

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and finally a resigned acceptance of her abnormality. He cannot comprehend her boredom, her frustration with him. In marital life theme of estrangement and lack of communication is discussed by writer in this novel. Since childhood, Sita remains a disregarded character. She is the result of broken family. She yearns to have the attention and love of others but her father remains busy with his chelas and patients. Even after marriage, she remains lonely as her husband Raman fails to fulfill her expectations. He fails to understand her violence and passion just like Gautama in *Cry, the Peacock.* Raman is wise, lucid and passive whereas Sita is unreasonable. Through Sita, Anita Desai voices the awe of facing all alone "the ferocious assaults of existence" (TOI: 13). The conflict between two polarized temperaments and two discordant viewpoints represented by Sita and Raman, sets up marital discord and conjugal misunderstanding as the *leit-motif* of Desai's novels. They are temperamentally poles apart which accounts for their being unable to forge a harmonious marital relationship.

Where Shall We Go This Summer? May thus be seen as a fable on the incapability of human beings to relate the inner with the outer, the individual with society. It does suggest that a life of complete inwardness is not the solution to the problems of life. It shows that human happiness is in balancing the opposites of life. The novel shows Desai's terrible image of life, in which the blameless bear. They pay a heavy price for their honesty and virtue, as intended by an unkind fate.

In Custody, also focuses on theme of marital friction and relationship problem. Desai has repeatedly tried to project the idea that a blissful conjugal life is a rainbow-colored dream of romantic mind, or wishful thinking of an immature intellect. In a marriage, adjustment for a woman means deleting her individuality, her inner self, her conscience, so that the ideal couple represents the self-satisfied, arrogant husband and his legally bonded woman slave. In this novel, the married couple led a gloomy married life. They are quite different from each other in their temperaments as Deven is a professor of literature and Sarla has no concern in literature. She is unaware that her husband's frequent visit to Delhi is to meet his girlfriend. Sarla is a picture of a discarded wife.

The problem of marital discord in the novels lie in the fact that Gautama in *Cry, The Peacock*, Jiban in *Voices In The City,* Raman in *Where Shall We Go This Summer?* and Deven in *In Custody* are practical and matter -of- fact men while Maya, Monisha, Sita and Sarla in these four novels respectively are idealistic. Maya, Monisha, Sita and Sarla each crave for love and understanding but their tragedy is that they are married to wooden, hard – hearted and insensitive men. All the marriages in her novels are more or less business dealings, the under-counter profits rationally handed over to the male partners. But not infrequently this order

is violently convulsed, the caged bird batters its head against the iron bars and manage to leave a few bloodstains. Similarly a wife revolts, runs away, commits suicide, becomes a homicidal maniac, and finds tremendous freedom in blessed widowhood, the great 'No' is said at least to ensure freedom of body and mind. By implication Mrs. Desai makes it clear that either one should remain unmarried, unfettered and unaccepted by the society as such, or marry and be damned to an everlasting private hell. In consequence, therefore, she is taken with definite discomfort by the complacent reading public. Her novels are indeed chilling encounters of the traumatic experiences of married lives.

Anita Desai is a modern writer as she considers new themes and knows how to deal with them. She explores the grief of women living in modern society. She presents her opinion about human relationships and human conditions as a big contemporary problem. Desai deals with intricacies of such relationships as one of her major theme, which is a universal issue. She endeavors to show this problem without any interferes. Anita Desai's novels can almost be examples of her idea that whereas man is concerned with action, experience and achievement, a woman writer is more concerned with thought, emotion and sensation. Thus, each of the above is a very common trouble dealt with in a marriage. Although these are problems, they can also be prospects for growth, learning and accord. Whether these issues remain problems causing stress in marriage or become an opportunity for growth depends upon man-woman attitude. The result of this trend may be continuing declining of the bonds between the generations and a decline in the mean psychological well-being of the population. It should be kept in mind that controlling access to divorce will not address the central problem, as chronic marital discord between continuously married parents appears to be as detrimental as divorce. More generally, the psychological well-being of the next generation of youth will be enhanced if emerging social trends or policy lead to an increase in the number of children raised by parents with stable and harmonious marriages.

The key to successful marriage is love, understanding, mutual respect, trust, commitment and togetherness. While many couples are able to find all the key ingredients in their marital relationships, others find one element or more lacking in their bond. This gives rise to consequences that are not always expected, or desired. This is a reason why a number of couples face adverse consequences, like divorce. Visible reasons why married couples find marriage as an intimidating bond is that they face issues like lack of trust, mutual respect, love and understanding in their relationship. It is thus clear that catastrophe in the married world of Anita Desai fiction arises basically because of unreliable incompatibility. What Desai pleads

is a balance, a midway between the two extremes of ideality and fantasy and that is the only way to arrive at a fruitful solution of the problem of marital discord.

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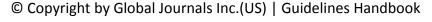4. *In Custody*. Delhi: Orient Paperbacks, 1984.

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13. Have backups: When you are going to do any important thing like making research paper, you should always have backup copies of it either in your computer or in paper. This will help you to not to lose any of your important.

14. Produce good diagrams of your own: Always try to include good charts or diagrams in your paper to improve quality. Using several and unnecessary diagrams will degrade the quality of your paper by creating "hotchpotch." So always, try to make and include those diagrams, which are made by your own to improve readability and understandability of your paper.

15. Use of direct quotes: When you do research relevant to literature, history or current affairs then use of quotes become essential but if study is relevant to science then use of quotes is not preferable.

16. Use proper verb tense: Use proper verb tenses in your paper. Use past tense, to present those events that happened. Use present tense to indicate events that are going on. Use future tense to indicate future happening events. Use of improper and wrong tenses will confuse the evaluator. Avoid the sentences that are incomplete.

17. Never use online paper: If you are getting any paper on Internet, then never use it as your research paper because it might be possible that evaluator has already seen it or maybe it is outdated version.

18. Pick a good study spot: To do your research studies always try to pick a spot, which is quiet. Every spot is not for studies. Spot that suits you choose it and proceed further.

19. Know what you know: Always try to know, what you know by making objectives. Else, you will be confused and cannot achieve your target.

20. Use good quality grammar: Always use a good quality grammar and use words that will throw positive impact on evaluator. Use of good quality grammar does not mean to use tough words, that for each word the evaluator has to go through dictionary. Do not start sentence with a conjunction. Do not fragment sentences. Eliminate one-word sentences. Ignore passive voice. Do not ever use a big word when a diminutive one would suffice. Verbs have to be in agreement with their subjects. Prepositions are not expressions to finish sentences with. It is incorrect to ever divide an infinitive. Avoid clichés like the disease. Also, always shun irritating alliteration. Use language that is simple and straight forward. put together a neat summary.

21. Arrangement of information: Each section of the main body should start with an opening sentence and there should be a changeover at the end of the section. Give only valid and powerful arguments to your topic. You may also maintain your arguments with records.

22. Never start in last minute: Always start at right time and give enough time to research work. Leaving everything to the last minute will degrade your paper and spoil your work.

23. Multitasking in research is not good: Doing several things at the same time proves bad habit in case of research activity. Research is an area, where everything has a particular time slot. Divide your research work in parts and do particular part in particular time slot.

24. Never copy others' work: Never copy others' work and give it your name because if evaluator has seen it anywhere you will be in trouble.

25. Take proper rest and food: No matter how many hours you spend for your research activity, if you are not taking care of your health then all your efforts will be in vain. For a quality research, study is must, and this can be done by taking proper rest and food.

26. Go for seminars: Attend seminars if the topic is relevant to your research area. Utilize all your resources.

27. Refresh your mind after intervals: Try to give rest to your mind by listening to soft music or by sleeping in intervals. This will also improve your memory.

28. Make colleagues: Always try to make colleagues. No matter how sharper or intelligent you are, if you make colleagues you can have several ideas, which will be helpful for your research.

29. Think technically: Always think technically. If anything happens, then search its reasons, its benefits, and demerits.

30. Think and then print: When you will go to print your paper, notice that tables are not be split, headings are not detached from their descriptions, and page sequence is maintained.

31. Adding unnecessary information: Do not add unnecessary information, like, I have used MS Excel to draw graph. Do not add irrelevant and inappropriate material. These all will create superfluous. Foreign terminology and phrases are not apropos. One should NEVER take a broad view. Analogy in script is like feathers on a snake. Not at all use a large word when a very small one would be sufficient. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Amplification is a billion times of inferior quality than sarcasm.

32. Never oversimplify everything: To add material in your research paper, never go for oversimplification. This will definitely irritate the evaluator. Be more or less specific. Also too, by no means, ever use rhythmic redundancies. Contractions aren't essential and shouldn't be there used. Comparisons are as terrible as clichés. Give up ampersands and abbreviations, and so on. Remove commas, that are, not necessary. Parenthetical words however should be together with this in commas. Understatement is all the time the complete best way to put onward earth-shaking thoughts. Give a detailed literary review.

33. Report concluded results: Use concluded results. From raw data, filter the results and then conclude your studies based on measurements and observations taken. Significant figures and appropriate number of decimal places should be used. Parenthetical remarks are prohibitive. Proofread carefully at final stage. In the end give outline to your arguments. Spot out perspectives of further study of this subject. Justify your conclusion by at the bottom of them with sufficient justifications and examples.

34. After conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print to the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects in your research.

Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form, which is presented in the guidelines using the template.
- Please note the criterion for grading the final paper by peer-reviewers.

Final Points:

A purpose of organizing a research paper is to let people to interpret your effort selectively. The journal requires the following sections, submitted in the order listed, each section to start on a new page.

The introduction will be compiled from reference matter and will reflect the design processes or outline of basis that direct you to make study. As you will carry out the process of study, the method and process section will be constructed as like that. The result segment will show related statistics in nearly sequential order and will direct the reviewers next to the similar intellectual paths throughout the data that you took to carry out your study. The discussion section will provide understanding of the data and projections as to the implication of the results. The use of good quality references all through the paper will give the effort trustworthiness by representing an alertness of prior workings.

Writing a research paper is not an easy job no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record keeping are the only means to make straightforward the progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear

· Adhere to recommended page limits

Mistakes to evade

- Insertion a title at the foot of a page with the subsequent text on the next page
- Separating a table/chart or figure - impound each figure/table to a single page
- Submitting a manuscript with pages out of sequence

In every sections of your document

· Use standard writing style including articles ("a", "the," etc.)

· Keep on paying attention on the research topic of the paper

· Use paragraphs to split each significant point (excluding for the abstract)

· Align the primary line of each section

· Present your points in sound order

· Use present tense to report well accepted

· Use past tense to describe specific results

· Shun familiar wording, don't address the reviewer directly, and don't use slang, slang language, or superlatives

· Shun use of extra pictures - include only those figures essential to presenting results

Title Page:

Choose a revealing title. It should be short. It should not have non-standard acronyms or abbreviations. It should not exceed two printed lines. It should include the name(s) and address (es) of all authors.

Abstract:

The summary should be two hundred words or less. It should briefly and clearly explain the key findings reported in the manuscript-- must have precise statistics. It should not have abnormal acronyms or abbreviations. It should be logical in itself. Shun citing references at this point.

An abstract is a brief distinct paragraph summary of finished work or work in development. In a minute or less a reviewer can be taught the foundation behind the study, common approach to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Yet, use comprehensive sentences and do not let go readability for briefness. You can maintain it succinct by phrasing sentences so that they provide more than lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study, with the subsequent elements in any summary. Try to maintain the initial two items to no more than one ruling each.

- Reason of the study - theory, overall issue, purpose
- Fundamental goal
- To the point depiction of the research
- Consequences, including <u>definite statistics</u> - if the consequences are quantitative in nature, account quantitative data; results of any numerical analysis should be reported
- Significant conclusions or questions that track from the research(es)

Approach:

- Single section, and succinct
- As a outline of job done, it is always written in past tense
- A conceptual should situate on its own, and not submit to any other part of the paper such as a form or table
- Center on shortening results - bound background information to a verdict or two, if completely necessary
- What you account in an conceptual must be regular with what you reported in the manuscript
- Exact spelling, clearness of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else

Introduction:

The **Introduction** should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable to comprehend and calculate the purpose of your study without having to submit to other works. The basis for the study should be offered. Give most important references but shun difficult to make a comprehensive appraisal of the topic. In the introduction, describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will have no attention in your result. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here. Following approach can create a valuable beginning:

- Explain the value (significance) of the study
- Shield the model - why did you employ this particular system or method? What is its compensation? You strength remark on its appropriateness from a abstract point of vision as well as point out sensible reasons for using it.
- Present a justification. Status your particular theory (es) or aim(s), and describe the logic that led you to choose them.
- Very for a short time explain the tentative propose and how it skilled the declared objectives.

Approach:

- Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done.
- Sort out your thoughts; manufacture one key point with every section. If you make the four points listed above, you will need a least of four paragraphs.

- Present surroundings information only as desirable in order hold up a situation. The reviewer does not desire to read the whole thing you know about a topic.
- Shape the theory/purpose specifically - do not take a broad view.
- As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

Procedures (Methods and Materials):

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.

- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

Please carefully note down following rules and regulation before submitting your Research Paper to Global Journals Inc. (US):

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- Do not give permission to anyone else to "PROOFREAD" your manuscript.

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- To guard yourself and others from possible illegal use please do not permit anyone right to use to your paper and files.

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Grades			
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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