

**An Investigation of Incongruity and Distraction Hypotheses:
The Context of Dubbed TV Commercials**

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An Investigation of Incongruency and Distraction Hypotheses: The Context of Dubbed TV Commercials

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Abstract

When one looks at the Television commercials scene in India, one easily sees three distinct patterns of communication. One is the nation-wide campaigns that are language neutral, meaning, they are purely music based. The other kind is a pure regional communications, with regional content starting from the language to the props used. The third variety is more like the ‘transition-ads’ that are between a pure nation-wide and a pure regional communication. These are basically nation-wide commercials dubbed in the regional languages, while not changing any part of the visual: thus they are ‘national’ with their visuals and regional with their sound track. The current study seeks to understand the effectiveness of such dubbed advertisements. Here incongruency and distraction hypotheses are investigated through two experiments. A social message against the use of cell-phones is used with students as target audience. The results of the first experiment while indicates distraction effects, the ANOVA tests have a very low power. The second experiment apart from repeating the first experiment with a little larger sample also looks at amount of counterarguments in the treatment conditions. The results of the second study do not validate any of the hypotheses. However the recall results are intriguing. Divided attention and incongruency are found to be two competing theories in explaining the recall effects of dubbed advertisements.

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1.0 Introduction:

Indian market is truly diverse with its large variety of regional languages, traditions, and beliefs. It is verily a challenging place for any marketer who eyes tapping its potential. Having a product that satisfies local needs is not just enough but the product benefits need to be communicated to the target audience for the product to finally see its fruition. But, the most challenging question is: How do the marketers communicate to this vast variety of people, speaking different languages and having distinct set of beliefs? Indian market is an interesting context to study the innovative ways businesses have found a way through.

When one looks at the Television commercials scene in India, one easily sees three distinct patterns of communication. One is the nation-wide campaigns that are language neutral, meaning, they are purely music based. The other kind is a pure regional communications, with regional content starting from the language to the props used. The third variety is more like the 'transition-ads' that are between a pure nation-wide and a pure regional communication. These are basically nation-wide commercials dubbed in the regional languages, while not changing any part of the visual: thus they are 'national' with their visuals and regional with their sound track. Only about 2 per cent of the ads are re-shot with regional artistes and settings, and most of them are being dubbed in regional languages (Businessworld)³. Effectiveness, in terms of persuasion and recall of these dubbed television commercials will be the focal point of this paper.

The existing literature on advertising debates the relative power of visual and auditory content in an advertisement (Bryce and Yalch 1993). The extant research has fairly studied consumer processing of visual and auditory content (Martin and Ditcham 1986). Russell (2002) argues that visual and auditory elements are processed differently as they convey different meanings. Through an interesting experiment, the author argues different recall and attitude effects of visual and auditory placements of products in TV shows. Advertisements

³Ali, S. Spread The Word. *Businessworld*. <http://www.businessworld.in/content/view/1626>

containing deviant elements in it like visual tropes and schemes have attracted attention in terms of their effectiveness in enhancing ad recall (McQuarrie and Mick 2003). Incongruence between visual and auditory elements of the advertisements, like in the case of dubbed-regional ads (incongruous lip movement and voice track) will be an interesting extension to the understanding of deviant elements of an advertisement. It would be the attempt in this paper to study if this incongruence has any effect on attitudes of consumers towards the message.

As majority of the extant research in advertising have been done in countries where a single language (for example English) is spoken, the need for understanding effectiveness of dubbed-regional language ads is unique to the Indian context. The findings, however, can be extended to similar diverse countries/markets.

Effectiveness of an advertisement can be measured in terms of two broad aspects: recall and persuasibility. Recall of the advertisement depends on how effective the advertisement has been in leaving distinct memory traces in the minds of the audience. Persuasibility depends on how the advertisement has been able to effectively change the attitudes of the audience. This happens at two levels: attitude toward the advertisement, and attitude toward the brand being advertised. The following section introduces the concept of persuasion.

2.0 Literature Review

2.1 Persuasion:

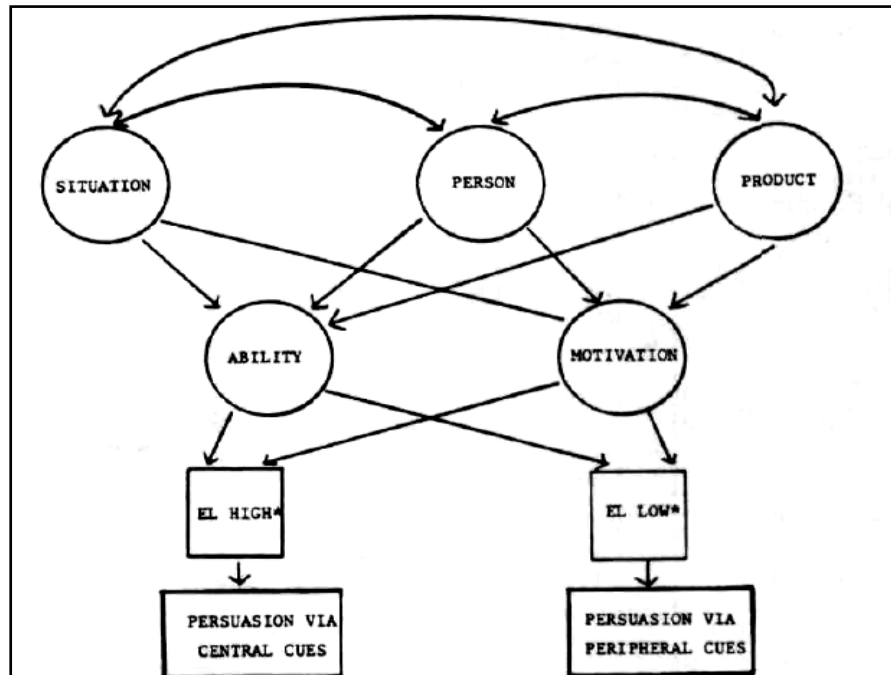
According to Simons (2001) persuasion is “a human communication designed to influence the autonomous judgments and actions of others” (p. 7). It seeks to alter the way others think, feel or act. It also seeks to alter the way people evaluate other people, events, ideas. O’Keefe (2002) delineates the characteristics of a persuasive process in terms of *Success* (The notion of success is inherent in the act of persuasion), *Criteria*: (There exist some criteria to measure success), *Freedom*: (The audience has the freedom (free will), and is not forced into some action), *Communication*: (Persuasion is achieved through communication), and *Mental change*: (A change in action is preceded by a change in the mental state).

According to Bettinghaus (1968), a persuasive message wishes to bring about five kinds of changes: attitude changes, opinion changes, perception changes, affect changes, and action changes. The extant literature reviewed here use opinion change as a measure of persuasion, and being used so in this paper too.

An understanding of the process of persuasion has been well established by Cacioppo & Petty (1984). According to their Elaborate Likelihood model (ELM), an individual's attitude formation and change takes place through two routes: Central and Peripheral. The main distinction between these two routes is basically the amount of cognitive effort that is put in by the recipient to process an information flow from the environment. Thus this model talks of the likelihood of such elaborations (cognitive effort) given the individual and situational factors. While the central route on one hand is characterized by attention to the appeal, an attempt to access associated information from the memory, critical evaluation of the message in the light of the associated information, drawing inferences based on the above analysis, and deriving an overall attitude toward the object of the message, the peripheral route on the other hand is characterized by avoidance of effortful cognitive activity, considering the message to be inconsequential, distractions during exposure to information, and lack of prior information on the issue being discussed. The ELM also argues that personal and situation factors also influence the predominance of a particular route to persuasion.

The factors that affect the likelihood of the route to persuasion are captured in the following scheme (Figure 1) as given by Bitner and Obermiller (1985). From Figure 1 it is very clear that the antecedents to the route to persuasion are situational factors, personal factors, and product characteristics. In the advertising context the ad related attributes can also be seen to determine the route to persuasion. However, Bitner and Obermiller (1985) argue that the same ad related attribute can be processed centrally and also peripherally based on the other situational factors.

Figure 1: Routes to Persuasion



Drawing from the above scheme, one could study various situational factors that may influence the route to persuasion keeping the other antecedents constant. One such situational factor is 'distraction' during the exposure to message. ELM argues that when an audience is distracted during exposure, the cognitive resources are spent in the distraction and thus due to lack of enough resources a peripheral route results. The mechanics of this route selection is discussed below. For understanding the mechanics better, the context of dubbed TV commercials is taken. The basic argument is that the dubbing acts as distraction during exposure. Thus from the discussion above, it can be preliminarily expected that dubbed ads are processed through peripheral rather than central route.

The following section discusses as to how this persuasion and recall are effected during distraction. Two competing hypotheses are discussed below that argue for two different ways by which a dubbed TV ad influences persuasion.

2.2 The In-congruency Hypothesis:

In Social cognition literature, studies on person-memory have found that behaviors incongruent with the personality characteristics are remembered more than personality-congruent behaviors. This study of incongruence in advertising literature is very recent and has a lot of scope (Heckler & Childers 1992). Literature on incongruency hypothesis argue that incongruent information necessitates retrieval of additional information from the long-term memory in trying to understand the new incoming information. This extra effort put in by the individual in turn increases the associative pathways stored in the memory (Hastie & Kumar 1979), thus increasing the strength of the memory traces and their retrievability (Hutchinson & Moore 1984). The relationship between incongruent information and recall have been studied in various contexts like picture and word congruity in print ads (Houston, Childers & Heckler 1987), visual and verbal information (Heckler & Childers 1992), ad schema (Goodstein 1993), deviant visual and verbal cues (McQuarrie & Mick 1996), program-ad congruity (Gunter, Bluch, Duffy & Furnham 2002; Furnham, Bergland & Gunter 2002), and music in advertising (Oaks 2007).

Two key characteristics of the elements of information in the context of incongruency hypothesis are: *relevance* and *expectancy*. According to Heckler & Childers (1992), Relevance is the degree to which a part of the information contributes to the identification of the core message of the ad, and Expectancy refers to the degree to which a part of the information fits into some predetermined structure/pattern evoked by the theme. Lee & Mason (1999) argue that unexpected element of information enhance recall, supporting their hypothesis that humor element in an ad will be recalled more as humor by very nature is something unexpected given the existing ad schema. Further, Heckler & Childers (1992) find that irrelevant-unexpected information lead to higher recognition of the advertisement than relevant-expected information elements (Lee & Mason 1999). The effectiveness of irrelevant-unexpected information however is found to be true only in terms of their memory effects and not attitude effects (Heckler & Childers 1992; Lee & Mason 1999).

Incongruent information is found to influence attitude since it leads to more elaboration (Hutchinson & Moore 1984; Heckler & Childers 1992). The reason irrelevant-unexpected information is less effective on attitude is due to the fact that the unexpected element in the ad increases the negative attitude brought in by the irrelevancy of the information (Lee & Mason 1999).

In the context of a dubbed TV commercial, visual (lip movement) and the audio (voice) are not in sync (incongruent). From the relevance perspective, the incongruent lip movement does not help the audience to identify the core message of the communication, and so can be considered irrelevant. However, as the audience would expect the lips to move in a particular fashion for a particular (familiar) language, an incongruent lip movement should be unexpected. From the above stated incongruity hypothesis, it follows that:

Proposition 1a: Dubbed TV commercial will have high recall.

Proposition 1b: Dubbed TV commercial will have less effect on attitude.

2.3 The Distraction Hypothesis:

The distraction hypothesis has been given as an explanation by Festinger & Maccoby (1964) to the results Allyn & Festinger's (1961) experiment. The original experiment of Allyn & Festinger (1961) seeks to understand the relationship between forewarning and persuasion. In their experiment two groups of students are exposed to a persuasive message (that is apposed to the opinion they held), where one group is forewarned about the persuasive intent (through a hand-out) and the other group is not, but are told that they will be asked questions on the personality of the speaker at the end of the speech. It is found that the 'forewarned' subjects are relatively un-influenced by the persuasive message compared to the other group. Festinger & Maccoby (1964) offer an interesting interpretation of these results. The authors contend that there was no real difference between the two groups as the first few statements by speaker would have as well acted as forewarning even in the control condition. However, the fact that the control group is told that they would be asked questions on the speaker's personality, must have led them to focus attention on the speaker rather than the speech. This distraction, the authors argue, must be the reason for more

persuasion among the control group. Thus the distraction hypothesis argues that, when subjects are exposed to a persuasive communication that is opposed to the opinion they hold, distraction inhibits counterarguments, thus leading to higher persuasion. This distraction hypothesis was validated by Festinger & Maccoby (1964).

Distraction affects message processing at two levels: comprehension and counterarguing. Distraction that inhibits counterarguing without affecting comprehension has more influence on opinion change. A non-monotonic relationship is easily discernable when one considers various levels of distraction (Watts & Holt 1979). Low distraction does not inhibit counter-arguing, high distraction inhibits comprehension that offsets the inhibition of counterarguments, and medium distraction is thus found to be more effective in bringing about opinion change (Bither 1972; Watts & Holt 1979). Bither (1972) also argues that levels of distraction that inhibit counterarguments (yielding process) without affecting reception of the message will lead to opinion change.

The attitude effects of distraction are found to be short lived (Watts & Holt 1979). The reasons given are twofold. For an element of information to have lasting impact, it should have an influence on the learning that precedes opinion change. In the case of medium distraction such influence on learning is minimal (Watts & Holt 1979). However, it is also true that high distraction interferes with comprehension (thereby inhibiting learning) thus leading to poor opinion change (Haaland & Venkatesan 1968). The other reason that medium distraction leads to short lived opinion change is that, after the subjects (under distraction condition) leave the experimental situation, there is a higher chance of them involving in counterargument (now undistracted). This is expected to dampen any opinion change brought about by the message during the experiment. This is not expected to be so in a non-distracted subject, since much of counter-arguing would have happened even during the exposure to the message (Watts & Holt 1979).

Dubbed TV commercials containing distracting lip movements can be considered in light of the above discussed distraction hypothesis. It is important that the levels of distraction in dubbed ad context is clearly understood. Languages that have very different words and

phrases to convey the same message can be easily seen to have significant differences in lip movements. Thus when a TV commercial originally in one such language (the base language) is dubbed in another language that is significantly different represents a high distraction condition. When the base language and the dubbed-in language share common words and phrases, it represents a medium distraction condition. A non-dubbed ad is a non-/low distraction condition.

From the above discussion on distraction hypothesis, it follows that:

Proposition 2a: Dubbed TV commercial under low distraction condition lead to less opinion change compared to moderate distraction condition.

Proposition 2b: Dubbed TV commercial under moderate distraction condition lead to more opinion change than the high distraction and low distraction conditions.

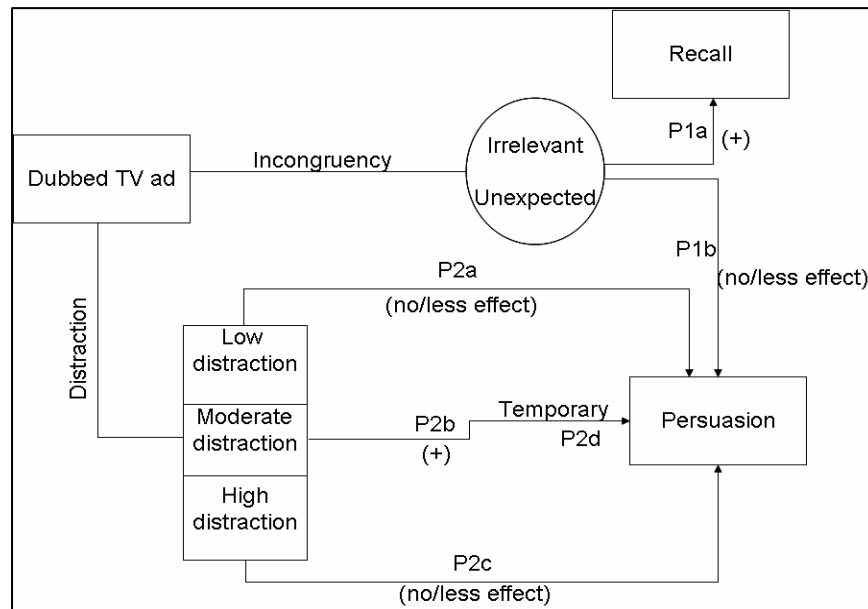
Proposition 2c: Dubbed TV commercial under high distraction condition lead to less opinion change than the moderate distraction condition.

Proposition 2d: The opinion change brought about by Dubbed TV commercial is temporary.

3.0 Conceptual Framework:

From the above discussion it can be seen that the two hypotheses give competing explanations to the effectiveness of a dubbed TV ad. Figure 1 is the conceptual framework developed based on the above discussion. This framework is suggested to be tested using an experimental design.

Figure 2: Conceptual framework



The (+) sign on the arrows denote the direction of influence.

4.0 Experiment:

4.1 Stimulus development:

In order for the persuasive message to be opposed to the general opinion held by the audience (students), a one-minute video clipping on ill effects of using a cell-phone was made⁴. The character in the video film narrates the story of a college student (high relevance to college students) who once a brilliant student loses concentration in studies because of the cell-phone and does very poor in his studies, and that his parents are worried about him (Refer Appendix 1 for the script). This video was made in three languages: Hindi (national language of India), English, and Gujarati (a regional language of a western state in India). The latter two were dubbed in Hindi. Thus the original video in Hindi represented low level of distraction, Hindi dubbed on Gujarati represented moderate level of distraction (since there are structural similarities between the languages), and Hindi dubbed on English represented high level of distraction (as these languages do not share any structural similarities). The levels of distraction thus created were pre-tested and found that they

⁴ Help rendered by EM²RC (Ahmedabad) and Mr. Shourya Goyal is acknowledged.

indeed represented three levels. The low-level of distraction was initially chosen to be the control group.

4.2 Experiment 1:

4.2.1 Sample

The experiment was conducted among first year post-graduate (MBA) students of a local college⁵.

4.2.2 Procedure

The first year MBA class (37 students were present on the day of the experiment) was randomly divided into three groups for the low, moderate and high treatment conditions. The groups were shown the respective video film separately and were asked to fill a questionnaire at the end. The questionnaire gauged the recall of some elements of the video, and opinion of the subjects on usage of cell-phone (Refer Appendix 2 for questionnaire).

Three days later, follow up was done. The same class was visited to get responses to the same questionnaire to test the persistence of persuasion and recall (the video was not shown again). Three students were absent on that day. However, 16 other students who were absent on the first day were present during this session. These 16 students were used as control as they were not exposed to any of the video films. Thus collecting their opinion on usage of cell-phone was thought to give the base level opinion of students against which the opinion of the treatment groups could be compared. The recall questions were deleted from the questionnaire given to this control group. After the questionnaires were got back, the students were asked to express their views on the purpose of the experiment. While the majority of the class thought that they were shown a social message to check if it had any influence on their opinion, the element of distraction by way of dubbing was not easily guessed.

⁵ The authors thank the Director of BK School of Management for allowing the author to conduct the experiment.

4.2.3 Results:

Table 1 gives the percentage recall of the elements of the video film. Element 1 is the name of the student in the story, element 2 is the class in which he was the topper in school, and element 3 is the subject in which he had secured 100 per cent marks.

Table 1.1 : Recall Results

| Level | Recall element | Experiment | Follow up |
|-----------------|----------------|------------|-----------|
| Low | Element 1 | 62% | 73% |
| | Element 2 | 69% | 91% |
| | Element 3 | 92% | 100% |
| Moderate | Element 1 | 33% | 27% |
| | Element 2 | 42% | 55% |
| | Element 3 | 100% | 100% |
| High | Element 1 | 33% | 58% |
| | Element 2 | 33% | 42% |
| | Element 3 | 92% | 92% |

The recall of element 2 is found to reduce as the condition increases from low (69%) to high (33%) in the experiment and the same trend follows in the follow up too. Element 1 is recalled more in low condition than in both moderate and high conditions in both experiment and follow up. Element 3 is recalled more in the moderate condition than the other two conditions during the experiment, and in low and moderate conditions than high condition during the follow up. The results do not support P1a, that is, presence of irrelevant and unexpected elements in the video does not increase recall.

A one-way ANOVA was done and the results are as given in Tables 2 a&b (only significant [$p < 0.1$] values are given).

Table 1.2: One-Way ANOVA (Experiment)

| | | | Sum of Squares | df | Mean Square | F | Sig. | Power |
|------------|------------|----------------|----------------|----|-------------|-------|-------|-------|
| Experiment | con_low1** | Between Groups | 5.164 | 1 | 5.164 | 4.027 | .055* | 0.355 |
| | | Within Groups | 34.629 | 27 | 1.283 | | | |
| | | Total | 39.793 | 28 | | | | |
| | con_low5 | Between Groups | 4.486 | 1 | 4.486 | 3.131 | .088 | 0.311 |
| | | Within Groups | 38.686 | 27 | 1.433 | | | |
| | | Total | 43.172 | 28 | | | | |
| | con_mod5 | Between Groups | 12.769 | 1 | 12.769 | 9.263 | .005 | 0.311 |
| | | Within Groups | 35.839 | 26 | 1.378 | | | |
| | | Total | 48.607 | 27 | | | | |
| | con_high1 | Between Groups | 6.715 | 1 | 6.715 | 3.490 | .073* | 0.355 |
| | | Within Groups | 50.026 | 26 | 1.924 | | | |
| | | Total | 56.741 | 27 | | | | |
| | con_high5 | Between Groups | 6.715 | 1 | 6.715 | 3.232 | .084 | 0.311 |
| | | Within Groups | 54.026 | 26 | 2.078 | | | |
| | | Total | 60.741 | 27 | | | | |

Table 1.3 One-Way ANOVA (Followup)

| | | | Sum of Squares | df | Mean Square | F | Sig. |
|-----------|-----------|----------------|----------------|----|-------------|-------|-------|
| Follow up | con_mod1 | Between Groups | 8.043 | 1 | 8.043 | 3.239 | .084* |
| | | Within Groups | 62.087 | 25 | 2.483 | | |
| | | Total | 70.130 | 26 | | | |
| | con_mod5 | Between Groups | 6.482 | 1 | 6.482 | 3.521 | .072 |
| | | Within Groups | 46.018 | 25 | 1.841 | | |
| | | Total | 52.500 | 26 | | | |
| | con_high1 | Between Groups | 7.894 | 1 | 7.894 | 4.435 | .045* |
| | | Within Groups | 46.276 | 26 | 1.780 | | |
| | | Total | 54.170 | 27 | | | |
| | con_high5 | Between Groups | 5.632 | 1 | 5.632 | 3.108 | .090 |
| | | Within Groups | 47.109 | 26 | 1.812 | | |
| | | Total | 52.741 | 27 | | | |

* - the score of control is higher than the treatment

** - con_low1 represents the comparison of means between control and low-level condition for question #1

The experiment data shows significant difference ($p < 0.1$) between the scores of control and the three levels for question #5, which is “In my opinion, parents are worried about their children using cell phones”. The same is true for the follow up data but for the low-level condition. One on were to take cue from the p values for the three conditions, it is clear that the moderate condition has led to higher persuasion than either low or high conditions, thus supporting P2b. Further, the significance level of the moderate condition in experiment is higher than that in the follow up. This means that the persuasive effect of the moderate condition declines over time, thus supporting P2d. At $p < 0.05$ significance level, only moderate condition seem to be persuasive ($p = 0.005$), there by supporting P2a ad P2c. The fact that only question #5 is showing this hypothesized trend is discussed later. The other questions seem to be supporting P1b, that is, congruency hypothesis seems to hold good in these cases.

There is significant difference between the control and low and high level conditions for question #1, which is “In my opinion, using cell phone distracts one’s attention away from studies”. Further, the scores of low and high level conditions are lower than the control group. It was found that on a 7 point scale, low condition had a score of 3.87, high condition had a score of 3.66, and control had a score of 4.65. This result is counter-intuitive and is discussed later.

4.2.4 Discussion:

All the questions asked to the subjects to gauge their opinion were all self-directed but for question #5, which was other-directed (parents). Question #1 is “In my opinion, using cell phone distracts one’s attention away from studies”, question #2 is “In my opinion, using cell phone means spending a lot of money in recharging/paying bills”, question #3 is “In my opinion, concentration in studies drops because of using cell phone”, question #4 is “In my opinion, students get poor marks in exams because they spend more time with the cell phone”. All these questions are focused on the personal consequences of using a cell phone. On the other hand, question #6 is “In my opinion, parents are worried about their children using cell phones”, which is focused on the consequences of using a cell phone on the parents. We believe this difference in focus of the question has led to questions having differential persuasive power. Han and Shavitt (1994) and Miller, Foubert, Reardon, and Vida (2006) support this line of thinking. They argue that stressing individualistic benefits as against collective benefits are more persuasive in individualistic society than collectivistic society. Collectivistic societies are characterized by dependence on group, value reciprocation favors, sense of belonging and respect for tradition (Miller, Foubert, Reardon, and Vida 2006). Collectivist society is one that is characterized by extended family system, where protection is offered in exchange for loyalty, and where the ‘We’ consciousness is upheld (Hofstede, 1983). Basing on the definition given by Hofstede (1983), it is easy to see that India is a collectivist society. In this context, the question #5 must have evoked response to other-directed element in the message. Thus the higher persuasion of the other-directed part of the message is well justified.

The other interesting finding of the study is the reversal of scores in the low and high conditions for question #1 (self-directed) in comparison to control group. This means that the under low and high conditions, subjects have expressed opinion that is less favorable compared to control group. In other words, the subjects in these two conditions have resisted the persuasive efforts of the message, and in fact have made their original opinion even more unfavorable. This can be explained by a phenomenon called ‘psychological reactance’ as given by Hammock and Brehm (1966). According to them, psychological reactance is a motivational state directed at re-establishment of eliminated freedom. Thus in the process of re-ascertaining freedom, persuasion is resisted. In this study, when the subjects were asked to give their opinion on whether the cell phone usage distracted them away from studies, it is likely that their freedom to use cell phone was threatened, and thus they expressed an opinion more unfavorable than original. It is easy to see that counter-argumentation accompanies reactance. Thus the subjects in the low and high conditions have counter-argued more than the moderate condition. In other words, the fact that only low and high conditions have shown reactance means that counter-argumentation has been inhibited in the moderate condition. This further confirms the distraction hypothesis.

4.2.5 Interim Conclusion

The study revisits distraction hypothesis through a new approach, that is the out-of-sync audio and video as a source of distraction. The results reveal two interesting phenomena: psychological reactance in the case of self-directed elements of the message, and persuasive ability of the other-directed elements.

4.2.6 Limitations of the study:

One major limitation of this study is the sample size used in the experiment. The results quoted here are very sensitive to sample size changes (Refer Table 1.2 for power of the test), and thus the conclusions can be taken only as indicative. This also means that the future research could confirm or challenge the results of this study by using larger sample sizes.

The other limitation of the study is the possible confounding effects of the subject-generated hypothesis about the study. Disguising the purpose of the study is critical and is another area of improvement. In the debriefing of the subjects, it was realized that the subjects tried to match their answers given in the follow up to that given by them during the experiment. This we believe would have confounded the persistence of persuasion results. One reason identified is that the questionnaire used in the experiment and the follow up had the same format and sequence of questions. Changing the format and sequence of the questions would have helped reduce the matching of answers.

4.3 Experiment 2:

Experiment 1 does not give any conclusive results (due to poor power of the test – Refer Table 1.2). Whether moderate levels of distraction lead to better persuasion, can be looked at in two ways. One is to look at actual opinion of the subjects after exposure to the message, and the other way is to look at the amount of counterarguments that the subjects involve in. While experiment #1 does the former, this experiment tries to do the latter. Here we check if there is any significant difference in amount of counterarguments between different levels of distraction. Thus if moderate levels of distraction lead to fewer counterarguments than in the low level distraction case, we could at least argue for the distraction element in dubbed advertisements. Another interesting outcome will be to check as to what happens at high distraction levels. To reiterate a point made while discussing *distraction hypothesis*: Low distraction does not inhibit counter-arguing, high distraction inhibits comprehension that offsets the inhibition of counterarguments, and medium distraction is thus found to be more effective in bringing about opinion change (Bither 1972; Watts & Holt 1979). In this experiment we check for two things: counterarguments and comprehension. This is done by asking subjects to write down their own opinion about the issue (cell phone usage by students) and that given by the narrator in the video. It is assumed that the latter is a representation of how much the subjects have understood the message. The following hypotheses follow:

H1: Moderate and High levels of distraction are associated with fewer counterarguments than the low level case.

H2: High level of distraction is associated with lower comprehension of the message than either Low or Moderate levels.

4.3.1 Sample:

58 post-graduate students from a local management college (Institute of Petroleum Management, Gandhinagar) formed the sample⁶. They were split randomly into 20, 20 and 18 to form the low, moderate and high condition groups respectively. The sample comprised of 6 female students and 52 male students. Since the purpose of the experiment was to understand counterargumentation that can happen only after the exposure to an opposing message, the low condition was used as the control unlike an explicit control group in the previous experiment.

4.3.2 Procedure:

Each group was shown the video with the instructions to watch carefully. The video was projected on a white screen (80 inches wide) placed about 4 to 6 meters away from the subjects. The subjects were instructed not look at the questions till the video was over. After the video was over, the subjects were asked to take about 2 to 3 minutes to fill the questionnaire. Extra time was allowed if any subject asked for it.

The questionnaire had two parts. The first part contained two questions, one on counterargument and the other on comprehension, and the second part had questions on recall of specific elements of the video and questions on opinion (see Appendix 3 for the questionnaire used). The subjects filled the first part before they answered the second part.

⁶ Help offered by Prof. Sanjay (IPMG) is acknowledged.

4.3.3 Results:

Counterarguments and comprehension questions were open ended, where the subjects gave their opinion apposed about the message in the video, and as given in the video respectively. The following procedure was used to make these two measurable. The counterargument was measured on a ratio scale. This was done simply by counting the number of distinct arguments given by the subjects. The comprehension was rated by the author on a scale of 1 to 5 based on the level of comprehension exhibit in the answer.

Tables 1 through 3 give the results of the one-way ANOVA conducted. In the tables CA refers to counterargument and COM refers to comprehension (Exhibit 1 gives some trends). Exhibit 2 gives the results of the recall test. The exhibit shows the percentage of subjects who rightly recalled three specific elements of the video (name of the protagonist, class, and subject – refer Appendix 1)

Table 2.1: One-Way ANOVA (Low Vs. Moderate)

| | | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----------------|----|-------------|-------|------|
| low_mod1 | Between Groups | 3.600 | 1 | 3.600 | 1.528 | .224 |
| | Within Groups | 89.500 | 38 | 2.355 | | |
| | Total | 93.100 | 39 | | | |
| low_mod2 | Between Groups | 2.500 | 1 | 2.500 | 1.171 | .286 |
| | Within Groups | 81.100 | 38 | 2.134 | | |
| | Total | 83.600 | 39 | | | |
| low_mod3 | Between Groups | 2.500 | 1 | 2.500 | .720 | .401 |
| | Within Groups | 131.900 | 38 | 3.471 | | |
| | Total | 134.400 | 39 | | | |
| low_mod4 | Between Groups | 4.900 | 1 | 4.900 | 2.064 | .159 |
| | Within Groups | 90.200 | 38 | 2.374 | | |
| | Total | 95.100 | 39 | | | |
| low_mod5 | Between Groups | .900 | 1 | .900 | .533 | .470 |
| | Within Groups | 64.200 | 38 | 1.689 | | |
| | Total | 65.100 | 39 | | | |
| low_modCA | Between Groups | .400 | 1 | .400 | .257 | .615 |
| | Within Groups | 59.100 | 38 | 1.555 | | |
| | Total | 59.500 | 39 | | | |
| low_modCOM | Between Groups | .100 | 1 | .100 | .060 | .807 |
| | Within Groups | 63.000 | 38 | 1.658 | | |
| | Total | 63.100 | 39 | | | |

Table 2.2: One-Way ANOVA (Low Vs. High)

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-----------|----------------|----------------|----|-------------|-------|------|
| low_hi1 | Between Groups | 3.603 | 1 | 3.603 | 1.923 | .174 |
| | Within Groups | 67.450 | 36 | 1.874 | | |
| | Total | 71.053 | 37 | | | |
| low_hi2 | Between Groups | 1.313 | 1 | 1.313 | .589 | .448 |
| | Within Groups | 80.161 | 36 | 2.227 | | |
| | Total | 81.474 | 37 | | | |
| low_hi3 | Between Groups | 2.866 | 1 | 2.866 | 1.180 | .285 |
| | Within Groups | 87.450 | 36 | 2.429 | | |
| | Total | 90.316 | 37 | | | |
| low_hi4 | Between Groups | .075 | 1 | .075 | .049 | .826 |
| | Within Groups | 54.978 | 36 | 1.527 | | |
| | Total | 55.053 | 37 | | | |
| low_hi5 | Between Groups | .117 | 1 | .117 | .067 | .798 |
| | Within Groups | 63.278 | 36 | 1.758 | | |
| | Total | 63.395 | 37 | | | |
| low_hiCA | Between Groups | 1.734 | 1 | 1.734 | 1.413 | .242 |
| | Within Groups | 44.161 | 36 | 1.227 | | |
| | Total | 45.895 | 37 | | | |
| low_hiCOM | Between Groups | .379 | 1 | .379 | .241 | .627 |
| | Within Groups | 56.700 | 36 | 1.575 | | |
| | Total | 57.079 | 37 | | | |

Table 2.3: One-Way ANOVA (Moderate Vs. High)

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-----------|----------------|----------------|----|-------------|-------|------|
| mod_hi1 | Between Groups | .003 | 1 | .003 | .001 | .971 |
| | Within Groups | 71.050 | 36 | 1.974 | | |
| | Total | 71.053 | 37 | | | |
| mod_hi2 | Between Groups | .155 | 1 | .155 | .087 | .770 |
| | Within Groups | 64.161 | 36 | 1.782 | | |
| | Total | 64.316 | 37 | | | |
| mod_hi3 | Between Groups | .024 | 1 | .024 | .008 | .927 |
| | Within Groups | 101.450 | 36 | 2.818 | | |
| | Total | 101.474 | 37 | | | |
| mod_hi4 | Between Groups | 3.538 | 1 | 3.538 | 1.617 | .212 |
| | Within Groups | 78.778 | 36 | 2.188 | | |
| | Total | 82.316 | 37 | | | |
| mod_hi5 | Between Groups | .338 | 1 | .338 | .166 | .686 |
| | Within Groups | 73.478 | 36 | 2.041 | | |
| | Total | 73.816 | 37 | | | |
| mod_hiCA | Between Groups | 3.734 | 1 | 3.734 | 2.680 | .110 |
| | Within Groups | 50.161 | 36 | 1.393 | | |
| | Total | 53.895 | 37 | | | |
| mod_hiCOM | Between Groups | .095 | 1 | .095 | .087 | .770 |
| | Within Groups | 39.300 | 36 | 1.092 | | |
| | Total | 39.395 | 37 | | | |

Figure 3: Persuasion Trend

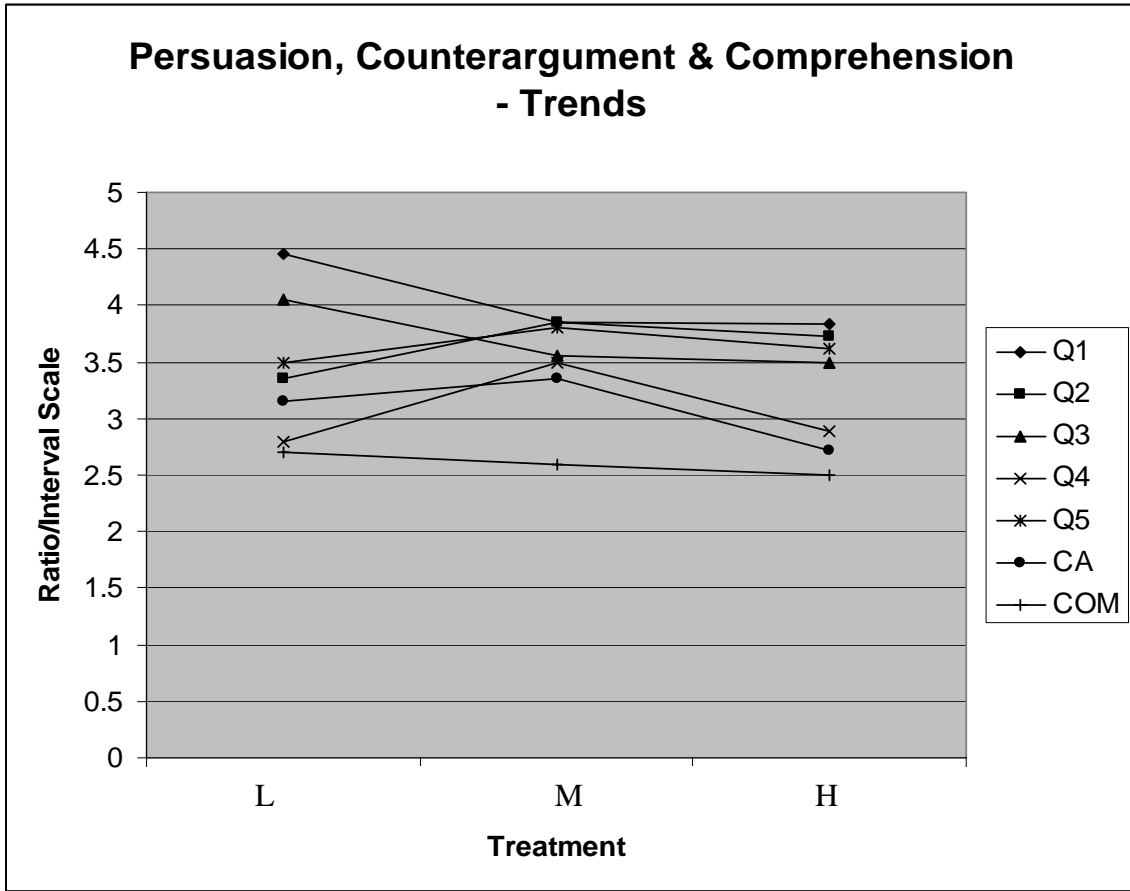
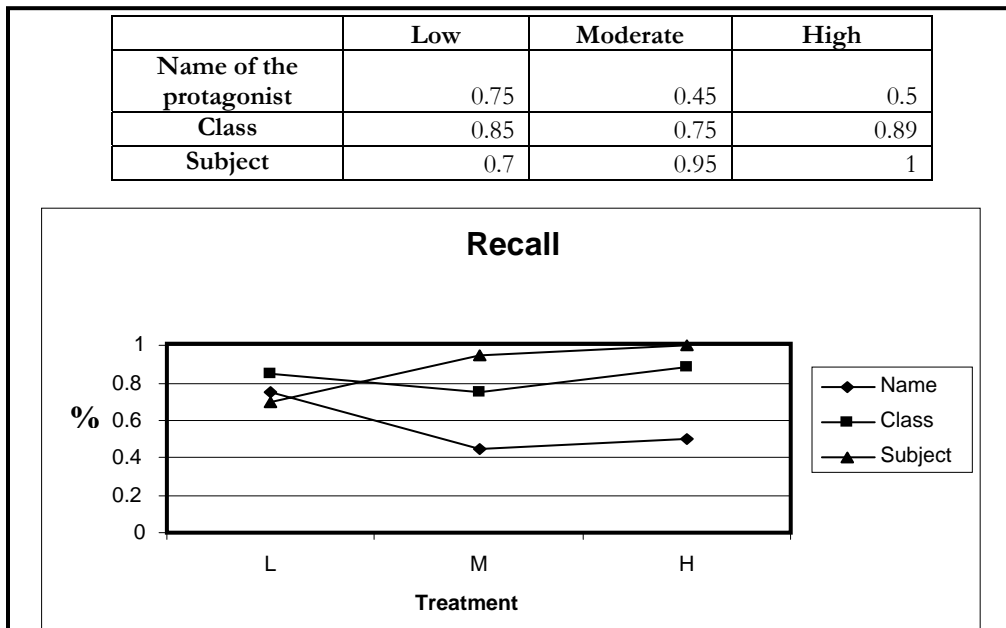


Figure 4: Recall Trend



4.3.4 Discussion:

From the one-way ANOVA results it is very clear that none of the hypotheses have been validated by the data. A further look at the trends gives some indication that only Q4 seems to have the hypothesized trend, however it is statistically insignificant. Further, the counterarguments have also not decrease in the case of moderate distraction. On the whole, the results show that unsynchronized lip-movement and audio does not act as distraction during exposure. Thus we may not able to study the resultant persuasion.

The recall test gives some interesting results. It can be seen that recall of the element 'subject' has improved with distraction. This is in accordance with incongruity hypothesis. However, in the case of 'name' and 'class' recall the performance reduces with distraction. This can to some extent be explained using *Divided Attention* hypothesis.

According to Johnston, Greenberg, Fisher and Martin (1970), recall is inversely proportional to the difficulty of the subsidiary task. In our case, the subsidiary task will be identification of the pattern of lip-movement (ie. identification of the base-language in which the video is shot), and the primary memory task will be the recalling of specific elements in the message (ie. recall the auditory elements that are in a different language). Since in our experiment we had not explicitly asked the subjects to perform the subsidiary task, we may not be able to extend this argument further. However, a casual exposure of these videos to some friends with an instruction to perform the subsidiary task in fact indicates toward divided attention effects. This line of investigation needs more robust empirical study.

5.0 Overall Conclusion:

While the first experiment results were marginally validating the hypotheses of this study, the vulnerability of the results to sample size variations became very evident in the second experiment. Thus the results of the first experiment do no hold any water with regard to the persuasive power of dubbed advertisements. However, the second experiment in its own right has unraveled interesting debate on the recall of dubbed advertisements. The results of the two experiments conducted are indicative of the fact that dubbing of advertisements do

not lead to *distraction* thus leading to better persuasion. However, there is some evidence for two other competing theories – *incongruency* and *divided attention*.

Abstracting from the above mentioned results one take away is that auditory elements grab a higher share of the subject's cognitive space than visual elements especially when both are out of sync. This argument is in line with what Russell (2002) opines: "auditory information is more meaningful and thus processed more deeply than visual information" (p. 314). This study in a way makes a theoretical contribution by adding to the visual vs. audio debate with respect to effectiveness of advertisements in the audio-visual media.

We believe that the dubbing of advertisements is a very interesting phenomenon still nascent. This study is just an attempt to understand the theoretical underpinnings of the audience response to such advertisements. More research is required in this area, as this has got direct managerial implications.

6.0 References:

- Allyn, J., & Festinger, L. (1961). The effectiveness of unanticipated persuasive communications. *Journal of Abnormal and Social Psychology*. Vol. 62. Pg. 35-40.
- Bettinghaus, E.P. (1968). *Persuasive Communication*. New York: Holt, Rinehart and Winston, Inc.
- Bither, S. W. (1972). Effects of distraction and commitment on the persuasiveness of television advertising. *Journal of Marketing Research*. Vol. 9. Pg. 1-5.
- Bitner, M.J., & Obermiller, C. (1985). The Elaboration Likelihood Model: Limitations and Extensions in Marketing. *Advances in Consumer Research*. Vol. 12 (1). Pg.420-425
- Bryce, W.J., & Yalch, R.F. (1993). Hearing versus seeing: A comparison of consumer learning of spoken and pictorial information in television advertising. *Journal of Current Issues and Research in Advertising*. Vol.15(1). Pg. 1-20.
- Cacioppo, J.T. & Petty, R.E. (1984). The Elaboration Likelihood Model of Persuasion. *Advances in Consumer Research*. Vol.11 (1). Pg.673-675.
- Festinger, L., & Maccoby, N. (1964). On resistance to persuasive communications. *Journal of Abnormal and Social Psychology*. Vol. 68 (4). Pg. 359-366.

- Furham, a., Bergland, J., & Gunter, B. (2002). Memory for television advertisements as a function of advertisement-programme congruity. *Applied Cognitive Psychology*. Vol. 16. Pg. 525-545.
- Goodstein, R. C. (1993). Category-based applications and extensions in advertising: Motivating more extensive ad processing. *Journal of Consumer Research*. Vol. 20. Pg. 87-99.
- Gunter, B., Baluch, B., Duffy, L. J., & Furnham, a. (2002). Children's memory for television advertising: Effects of programme-advertisement congruency. *Applied Cognitive Psychology*. Vol 16. Pg. 171-190.
- Haaland, G. A., & Venkatesan, M. (1968). Resistance to persuasive communications: An examination of the distraction hypotheses. *Journal of Personality and Social Psychology*. Vol. 9 (2). Pg. 167-170.
- Hammock, T., & Brehm, J. W. (1966). The attractiveness of choice alternatives when freedom to choose is eliminated by a social agent. *Journal of Personality*. Vol. 34 (4). Pg. 546-554.
- Han, S., & Shavitt, S. (1994). Persuasion and culture: Advertising appeals in individualistic and collectivistic societies. *Journal of Experimental Social Psychology*. Vol. 30 (4). Pg. 326-351.
- Hastie, R., & Kumar, P. A. (1979). Person Memory: Personality traits as organizing principles in memory for behaviors. *Journal of Personality and Social Psychology*. Vol.37. Pg. 25-38.
- Heckler, S. E., & Childers, T. L. (1992). The role of expectancy and relevancy in memory for verbal and visual information: What is Incongruency?. *Journal of Consumer Research*. Vol. 18. Pg. 475-492.
- Hofstede, G. (1983). National cultures in four dimensions. *International Studies of Management & Organization*. Vol. 13 (1/2). Pg. 46-74.
- Houston, M. J., Childers, T. L., & Heckler, S. E. (1987). Picture-word consistency and the elaborative processing of advertisements. *Journal of Marketing Research*. Vol. 24(4). Pg. 359-69.
- Hutchinson, J. W., & Moore, D. L.(1984). Issues surrounding the examination of delay effects in advertising. *Advances in Consumer Research*. Vol. 11. Pg. 650-655.
- Johnston, W. A., Greenberg, S. N., & Fisher, R. P. (1970). Divided Attention: A vehicle for monitoring memory processes. *Journal of Experimental Psychology*. 83(1). 164-171.

- Lee, Y. H., & Mason, C. (1999). Responses to information incongruity in advertising: The role of expectancy, relevance and humor. *Journal of Consumer Research*. Vol. 26(2). Pg.156-169.
- Martin, D.S., & Ditcham, L. (1986). Information-processing analysis of television advertisement recall. *Journal of General Psychology*. Vol. 114(1). Pg 5-12.
- McQuarrie, E.F., & Mick, D.G. (2003). Visual and verbal rhetoric figures under directed processing versus incidental exposure to advertising. *Journal of Consumer Research*. Vol. 29. Pg. 579-587.
- Miller, C., Foubert, B., Reardon, J., & Vida, I. (2006). Teenagers' response to self- and other-directed anti-smoking messages. *International Journal of Market Research*. Vol. 49 (4). Pg. 515-532.
- O'Keefe, D.J. (2002). *Persuasion: Theory & Research*. Thousand Oaks: Sage.
- Oakes, S. (2007). Evaluating empirical research into music in advertising: A congruity perspective. *Journal of Advertising Research*, Mar2007, Vol. 47. Pg.38-50.
- Russell, C.A. (2002). Investigating the effectiveness of product placements in television shows: The role of modality and plot connection congruence on brand memory and attitude *Journal of Consumer Research*. Vol. 29 (3). Pg.306-318.
- Simons, H.W., Morreale, J., & Gronbeck, B. (2001). *Persuasion in Society*. Thousand Oaks: Sage.
- Watts, W., & Holt, L. E. (1979). Persistence of opinion change induced under conditions of forewarning and distraction. *Journal of Personality and Social Psychology*. Vol. 37 (5). Pg. 778-789.

Appendix 1

Social Message

I am going to tell you a story ... a story about a college student named Raju. He was very good in studies...was class topper in his 12th class, got a 100 out of 100 in mathematics...his parents were very happy and proud. When he got into college...he got into a very bad company...the cell phone. His concentration on studies slowly started dropping....and he was most of the time sending sms, reading sms, making calls, or receiving calls....or playing games. In the process he spent a lot of money in recharging his sim card and focusing less on studies. Because of the cell phone he got poor marks in all the subjects. If only he never had a cell phone, he would have been a topper in the college also...made his parents proud again....but now...his parents are worried about him.

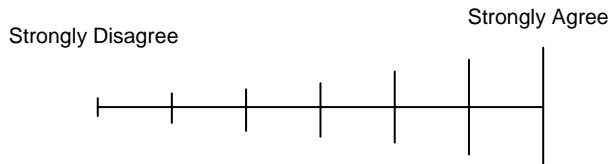
Appendix 2

Questionnaire used for Experiment 1

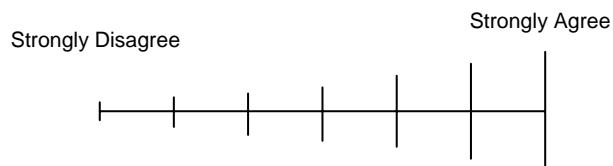
1. What is the name of the college student in the story? _____
2. When was he/she the topper in class? _____
3. Which subject he/she got 100/100? _____

- Read the following statements carefully and kindly mark **X** at an appropriate place on the following scales

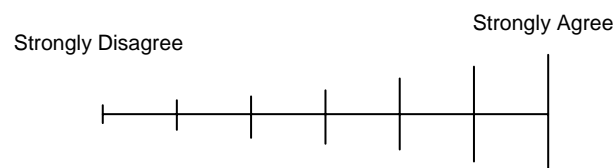
- **To what extent do you agree that using cell phone distracts one's attention away from studies**



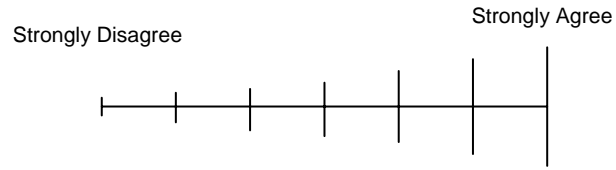
- **To what extent do you agree that using cell phone means spending a lot of money in recharging/paying bills**



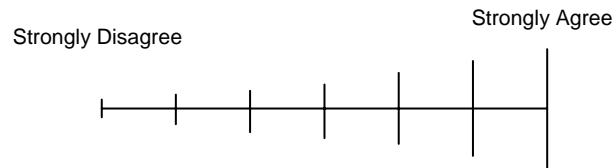
- **To what extent do you agree that concentration in studies drops because of using cell phone**



- **To what extent do you agree that students get poor marks in exams because they spend more time with the cell phone**



- **To what extent do you agree that parents are worried about their children using cell phones**

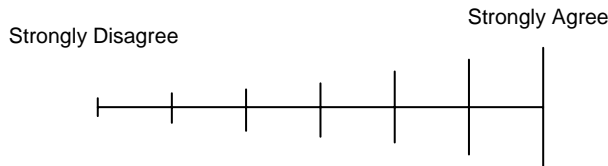


Part 2

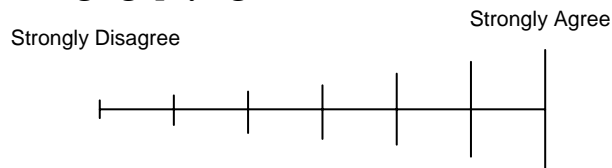
1. What is the name of the college student in the story? _____
2. In which class was he/she the topper? _____
3. Which subject he/she got 100/100? _____

- Read the following statements carefully and kindly mark **X** at an appropriate place on the following scales

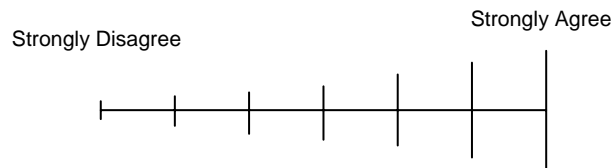
- **To what extent do you agree that using cell phone distracts one's attention away from studies**



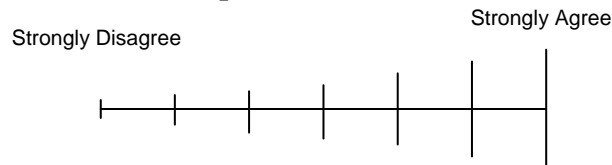
- **To what extent do you agree that using cell phone means spending a lot of money in recharging/paying bills**



- **To what extent do you agree that concentration in studies drops because of using cell phone**



- **To what extent do you agree that students get poor marks in exams because they spend more time with the cell phone**



- **To what extent do you agree that parents are worried about their children using cell phones**

