The present study was undertaken with the aim to develop a reliable and valid Hindi version of the Mehrabian and Epstein (1972) Questionnaire Measure of Emotional Empathy. The main objectives were to describe the procedures followed in the adaptation of the Hindi version of the said scale, to evaluate the equivalence of the Hindi version and the original questionnaire measure of empathic tendency, to determine the internal consistency of the Hindi questionnaire measure of empathy, its split-half and test-retest reliability and to present evidence of its criterion-related validity and the construct validity.

Table 1 reveals that males obtained a greater mean score (15.10) on the Hindi Empathy Scale as compared to the mean score (15.10) on the English Empathy Scale. On the other hand, females got a higher mean score (23.10) on the Hindi Empathy Scale as compared to the mean score on the English Empathy Scale i.e. 22.90. The t-ratios for the two sets of mean scores of males and females (.15 and .05, respectively) were found to be nonsignificant. For the total sample, the mean score (19.60) for the English
Empathy Scale was greater than the mean score (19.40) on the Hindi Empathy Scale. The t-ratio for this set of mean scores (.07) was again found to be nonsignificant.

Table 1 also reveals that the mean scores of females on both the Hindi and English Empathy Scales (23.10 and 22.90, respectively) were higher than the mean scores of males on these two scales (15.70 and 15.10, respectively). The results reveal that the females have comparatively more empathic tendency than males.

A nonsignificant mean difference may be due to the clear understanding of the concept in both the scales. Since the sample for this study was pooled from the general population excluding student population, the responses were obtained from mature and responsible people. Again, as the minimum qualification was set as graduation and all the subjects had a good knowledge of both Hindi and English, the responses were almost the same for both the scales.

The equivalence of the Hindi and English Empathy Scales was evaluated by means of computing the correlation between scores on the two scales for the total sample of 100 subjects and for scores of males and females, separately. Table 2 reveals that the correlation between
scores on the Hindi and English Empathy Scales of males and females (.79 and .86, respectively) and males and females combined (.84) were all significant beyond the .01 level. The results indicate that the Hindi Empathy Scale established high equivalence with its English counterpart. The results also indicate that the females are more empathic in nature than males as the correlation for females (.86) was greater than that for males (.79). Many other findings including those of Mehrabian and Epstein (1972) has shown that females are more empathic than males (Maccoby and Jacklin, 1974; Block, 1976; Davis, 1983, etc.).

As for internal consistency of the Hindi Empathy Scale, Table 3 reveals a high coefficient alpha reliability ($\alpha = .56$) which is significant beyond the .01 level. The high coefficient alpha reliability indicates the high consistency reliability of the Hindi Empathy Scale. The results imply that the items in the scale are homogenous.

Internal consistency of the Hindi Empathy Scale was also determined by adopting another method i.e. by determining the item-total correlation for all the 33
items. The results show that out of 33 items, 18 items were significant at the .01 level and three items were significant at the .05 level. The results also reveal that 12 items yielded nonsignificant item-total correlations. Out of 12 nonsignificant items, one item was showing a negative correlation. The overall results show that a part of the scale consisting of 12 items was not fully internally consistent. Although the 12 items were nonsignificant, yet ten of them had a positive correlation with the Hindi Empathy Scale. In this sense, only two items were not internally consistent with the Hindi Empathy Scale, one was showing a negative correlation and another was showing a zero correlation. The discovery of the nonsignificant or internally inconsistent items may be attributable to the scoring system of the scale which involves making a response out of as many as eight possible choices. As explained in Chapter 3, the choice of responses of the subjects vary from +4 (very strong agreement) to -4 (very strong disagreement) which is a difficult and confusing task for the S. Due to the greater number of these response categories, inconsistent responses for different items might have been given by the subjects leading to low correlations between the item-score and the total-score.
However, despite these results, the overall picture suggests that a larger part of the scale is internally consistent as the majority of the items show a positive correlation with the total score.

Table 5 reveals that the split-half reliability ($r = .62, \text{df}=98, p<.01$) was found to be highly significant, thus strengthening the reliability of the Hindi Empathy scale. Table 6 reveals a high test-retest reliability ($r = .81, \text{df}=23, p<.01$), involving 30 days' retest period. The results showed a strong test-retest reliability for the Hindi Empathy Scale, even after 30 days of first testing. The above discussion explains that the Hindi Empathy Scale was a reliable measure of empathic tendency as it showed a fair internal consistency, high split-half reliability and test-retest reliability.

To examine the validity of the Hindi Empathy Scale, two kinds of validity were determined: criterion-related and construct validity. According to Edwards (1959), pure criterion measures are generally not available and as a result, self-ratings or ratings by peers have frequently been substituted for the pure criterion measures.

In the present study, both the substitutions suggested by Edwards (1959) were considered in order to
get a pure criterion. For peer-ratings, a negative correlation \((r = .10, \text{df}=23, \text{n.s.})\) was obtained which indicates that what the subjects had expressed in the scale was not consistent with the ratings by their peers. However, it may be pointed out that the peer-ratings regarding the empathic tendency of the subjects may not be correlated with their empathy scores as empathic concern is a person's entirely internal affair and there are always individual differences. On the other hand, some subjects may be deceptive in nature.

Another criterion of self-rating was fulfilled by some part of the sample \((N=25)\) rating certain pictures containing an element of empathy. In this case, a high positive correlation \((r = .68, \text{df}=23, p<.01)\) was obtained.

The construct validity was also determined for the Hindi Empathy Scale. According to Anastasi (1988), the construct validity of a test is the extent to which the test may be said to measure a theoretical construct or trait. For this purpose, scores of the test may be validated against those on another test measuring the same theoretical construct or trait. In the present study, scores on the Hindi Empathy Scale were validated against
those on the "Attitude Scale" developed from EPPS (Edwards Personal Preference Schedule, 1959) as mentioned in the previous chapter. This "Attitude Scale" was intended to measure empathy. Table 9 reveals a high correlation ($r = .65$, df=98, $p<.01$) between the scores of the Hindi Empathy Scale and the said "Attitude Scale". The high correlation indicates that the Hindi Empathy Scale has a high construct validity also.

The foregoing discussion reveals that the Hindi Empathy Scale has a high equivalence value with the English Empathy Scale, high internal consistency reliability as computed by coefficient alpha, and larger part of the scale was found to be internally consistent as determined by item-total correlations. The scale also has high split-half and test-retest reliabilities, high criterion-related validity (except peer-ratings) and high construct validity as seen through its validation against the "Attitude Scale" measuring empathic tendency.

Besides this, the range of scores for the Hindi Empathy Scale (-34 to 72) and for the English Empathy Scale (-18 to 90) indicate that empathic tendency is highly governed by individual differences. This finding is supported by Davis, 1983; Eisenberg et al. 1983, etc.
Finally, to sum up, a fairly internally consistent, reliable and valid Hindi version of the original Mehrabian and Epstein (1972) Questionnaire Measure of Emotional Empathy has been developed.

As the Hindi Empathy Scale has a high equivalence with the original English Empathy Scale, it can be freely used in the Indian context. Thus, the aim of the present study, viz., developing a reliable and valid Hindi version of the Mehrabian and Epstein (1972) Questionnaire Measure of Emotional Empathy has been fulfilled to a great extent.