This chapter provides an overall view of the methodology which has been adapted for the study of divergence patterns as observed in Kashmiri-English language pair.

2.1 Methodology

This Study “Kashmiri to English Machine Translation: A Study of Morpho-syntactic Divergence Patterns” has a practical objective of providing a theoretical impetus to any MT system which may be developed in the future for Kashmiri-English language pair. The analysis phase of this study began with examining different traditional grammars in both the languages. This was followed by collection of data in Kashmiri. Both textual and spoken data was used for this study. The textual data consists of books, magazines and newspapers. The spoken data consists of about 80 hrs of recordings. The recordings were taken from both formal and informal settings through participant and non-participant observations. The need for spoken data arises because it was observed that a number of grammatical processes are not represented properly in the written texts and get more representation in the spoken data.

The collected data was carefully sifted and finally a set of representative data was chosen on which the present work progressed. The examples illustrating the concepts which were discussed for the first time in Kashmiri grammar like the expression of empathy, and different mechanisms for expression of modality were thoroughly discussed with the native speakers as well as the language experts for an objective evaluation. A systematic approach was adopted which was aimed towards a comprehensive presentation of almost all the major morpho-syntactic divergence patterns identified for Kashmiri-English language pair. The study follows a
Methodology

Chapter 2

descriptive methodology in describing the major morpho-syntactic divergence patterns of Kashmiri-English language pair.

After selecting representative examples, morpho-syntactic divergence patterns were described in a systematic manner. First, different word classes were studied including their major morpho-syntactic features. As verbs form the central word class, verbs were analysed first followed by nouns, adjectives, adverbs, prepositions/postpositions and conjunctions. The central morpho-syntactic features of all the major word classes were described and their implications for morpho-syntactic divergence patterns were discussed in the Analysis-1 chapter. The word level analysis was followed by analysis at phrasal and sentential level which forms the subject matter of the Analysis-II chapter.

All the phrase types were discussed along with their morpho-syntactic divergence patterns. Different sentence types like declarative, interrogative, imperative and exclamatory and the associated divergence patterns were then discussed in this chapter. Sentences were also analysed in terms of simple, compound and complex distinctions examining different kinds of coordination and subordination in Kashmiri and English, and the associated divergence patterns were analysed. This was followed by a discussion of the different types of coordinate and subordinate clause types in Kashmiri and the divergence which results from a particular type of construction.

An analysis of different tense types and the divergence which is observed while translating these different tense types was also presented in this chapter. Different question types and the associated divergence were also discussed in this chapter. The chapter then goes on to analyze the imperatives and the vocatives in Kashmiri and the divergence which results while translating imperatives and vocatives from Kashmiri to English. This chapter also discusses the divergence which is observed when one translates subject-less/pro-drop constructions from Kashmiri to English. The Analysis-II chapter ends with a discussion on the translation of empathic statements from Kashmiri to English and the divergence which is observed when one translates empathic statements from Kashmiri to English. The Analysis-III chapter takes two major grammatical phenomena i.e., modality and passivization as its subject matter. A new descriptive framework has been proposed for describing the mechanism of
modality and passivization phenomena in Kashmiri and the associated divergence patterns have been outlined. This is followed by the conclusion of the study.

Fig. 2.1: Showing the Scheme of Methodology followed in the Analysis