CHAPTER 6
Design of a Cross-Linguistic Experiment

6.0 Introduction

The hypotheses developed in chapters 3 through 5, along with others, have been tested using a cross-language sentence production design. In this chapter I will present and justify the experimental paradigm and describe in detail the method, including the materials and data processing procedures.

6.1 The Experimental Paradigm

As already noted (chap. 1), the major stumbling block in designing experiments on sentence production has been how to control and specify the input to the production process. The “contaminating” variable of what is comprehended by different subjects must be minimized and the production-process variables maximized. Presenting stimuli in the form of words or sentences clearly does not accomplish this end. Hence, psycholinguists increasingly have been using nonverbal, especially perceptual, stimuli to control the conceptual input. Subjects are asked to view diverse events and states and then to describe these with ordinary sentences. In testing hypotheses, variations in the verbal outputs are analyzed in relation to the manipulated variations in the perceptual inputs. Osgood (1971) has appropriately dubbed this technique simply describing.

The simply describing technique has been employed by a number of psycholinguists to study a variety of sentence-production phenomena. The earliest use, to the best of my knowledge, was in a study by Carroll (1958), in which the purpose was to elicit passive and passive-like sentences. Carroll “acted out” a number of events, and his subjects described
the events in response to questions focusing on different aspects of them. A more elaborate study in which the perceptual input involved live actions was the one by Osgood (1971), to which I have already often referred (since it was the model for the cross-language extension). Here, selective forcing of the subjects' attention to events was accomplished occasionally either by exposing the subjects to actions "in mid-course" or by asking them to describe the actions "in another way" and sometimes "in yet another way" (to elicit, e.g., transformations). For the most part, however, subjects viewed the experimenter's demonstrations "naturalistically" without any extraneous focusing maneuvers. Another study employing "live" perceptual input was that reported by Olson (1970), in which descriptions of a given object were shown to depend on the presence of other objects from which it had to be distinguished (cf. discussion in the previous chapter).

The majority of production studies employing perceptual stimuli, however, have used static pictures (Clark & Chase, 1972, 1974; Flores d'Arcais, 1970, 1975; Hornby, 1971; Hornby & Hass, 1970; Krauss & Weinheimer, 1964, 1967; Maclay & Newman, 1960; Turner & Rommetveit, 1967; among others), drawings (Tannenbaum & Williams, 1968), or cartoons (Prentice, 1967). Many of these studies were concerned with the generation of passive sentences and attempted to induce subjects to focus selectively on one aspect or another of the perceptual input by presenting a cue word, an introductory paragraph, or a picture focusing on one of the entities.

Two studies have used short films as perceptual input—those by Grieve (1973) and by Chafe (1980). Grieve's study, as we saw in the last chapter, demonstrates the correlation between initial versus repeated appearance of an entity and between indefiniteness versus definiteness of articles in describing. Chafe's short (5-minute) film shows a man picking pears from a tree and the stealing of one of the baskets of pears by a young man, who falls off a bicycle and spills the stolen pears. The film was shown in 10 diverse language settings and subjects were asked for global oral descriptions of what was shown. Some of the subjects were asked again 8 weeks later. Chafe's book (1980) contains a number of studies discussing the sub-chunking of the narrative into "thought units," as well as other aspects such as point of view, lexical choice, and maintenance of referential continuity. The emphasis in the analyses was on the cultural and individual variations in how the perceptual input was construed by subjects.

In discussing the use of perceptual materials as stimuli for language production, a very important point—made by Osgood (1971), by Fodor et al. (1974), and by Danks (1977), among others—needs to be kept in mind: the distinction between the sensory stimulation in itself (e.g., a picture, a drawing, a particular shot in a film, etc.), and the subjects' construal of the perceptual experience. As is well known, different people viewing the