The fact that an observation provides a large outlier is not, of course, good, but it does not necessarily mean that the observation is influential in fitting the chosen model. For example, in Figure 8.1, where the data of Table 8.1 are plotted, we see that the observation marked 19 will certainly be an outlier for most simple models fitted through the data. Its possible influence is moderated by the fact that there are

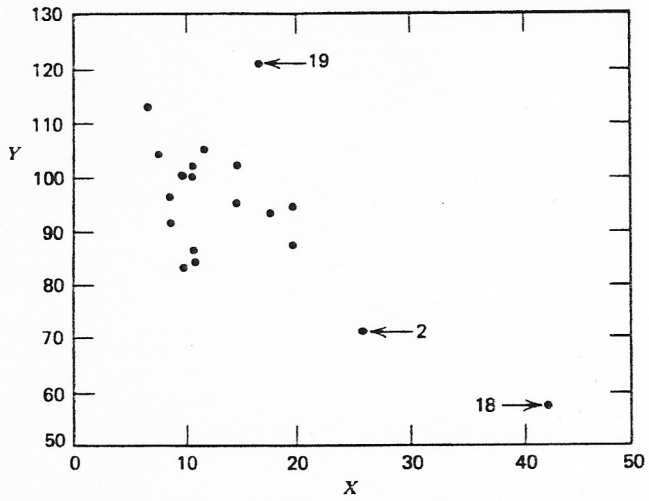

Figure 8.1. A regression with an observation (19) that may not be influential and one (18) that may well be. X represents the age of a child at first word (in months) and Y represents the child's score on an aptitude test. Reproduced by permission from Andrews and Pregibon (1978). The original data were recorded by Dr. L. M. Linde of UCLA and were given by Mickey, Dunn, and Clark (1967). See Table 8.1 for the data.

TABLE 8.1. Age at First Word (X) and Gesell Adaptive Score (Y)

Case	X	Y
1	15	95
2	26	71
3	10	83
4	9	91
5	15	102
6	20	87
7	18	93
8	11	100
9	8	104
10	20	94
11	7	113
12	9	96
13	10	83
14	11	84
15	11	102
16	10	100
17	12	105
18	42	57
19	17	121
20	11	86
21	10	100

Source: Data from Mickey, Dunn, and Clark (1967) but recorded by L. M. Linde of UCLA.

other observations at neighboring X-values. Observation 18, on the other hand, could well be an influential one. Being alone in its territory, it may have a major influence on the position of the fitted model there. It may or may not have a large residual, depending on the model fitted and the rest of the data.