

**[0088]** If the "stroking" action is done, the numerical value +2 is read for the basic parameters a and c from the parameter/temperament table by the numerical-value providing unit 451. In this manner, as indicated by the parameter/temperament tables shown in Figs. 8A and 8B, the numerical values set for the individual basic parameters are read by the numerical-value providing unit 451 according to the dog's current temperament, and the read values are added for each parameter by the addition unit 452. The parameter/temperament tables shown in Figs. 8A and 8B are preset for all the actions that influence the basic parameters. Any actions that affect the basic parameters may be set as desired.

**[0089]** If the cumulative value is a negative value, a predetermined positive value is added by the addition unit 452. If the cumulative value is a positive value, a predetermined negative value is added by the addition unit 452. The cumulative value can thus be adjusted. Among the adjusted values, the greatest and the second greatest absolute values are selected. Then, based on the two selected basic parameters, the temperament to be set is determined by referring to the temperament conversion table shown in Fig. 9. The selection of the two basic parameters and the determination of the corresponding temperament are performed by the reading unit 453.

**[0090]** For example, it is now assumed that the two selected basic parameters are c and b. By referring to column c and row b of the temperament conversion table shown in Fig. 9, the temperament setting is changed to C if c is a positive value and b is a negative value. If c is a negative value and b is a positive value, the temperament setting is changed to H. In selecting two basic parameters, the unadjusted cumulative values may be used. Alternatively, the unadjusted cumulative values may be used only for specific basic parameters. The parameter/temperament tables and the temperament conversion table shown in Figs. 8A, 8B, and 9 have been stored, together with the calculation expressions, in a storage unit, such as in the recording medium 40.

## (2) Changing the emotion setting

**[0091]** In the game used in this embodiment, one of the four emotions, such as "joy", "anger", "sadness", and "happiness", of a given (selected) dog, is set (determined), as shown in Fig. 10, in accordance with the action performed on the dog by the game player and the dog's temperament when the action has been made. According to the newly set emotion, the dog's action (behavior) is changed, thereby making the game dynamic and highly entertaining.

**[0092]** The emotion setting is changed every time the game player performs some action on the dog, for example, in the following manner. The dog's emotion toward the action made by the game player is first determined. More specifically, as indicated by the emotion

determining tables illustrated in Figs. 11A and 11B, when the "praising" action is done, the emotion "joy" is exhibited if the dog's temperament is A, and the emotion "happiness" is exhibited if the dog's temperament is C. When the "stroking" action is done, the emotion "anger" is exhibited if the dog's temperament is A, and the emotion "joy" is exhibited if the dog's temperament is B. The emotion is read from the emotion determining table by the reading unit 461 according to the action performed by the game player.

**[0093]** The four emotions are represented by numerical values used as indices, and the total value of the four emotions is set to be 100. If the emotion "joy" is exhibited when a predetermined action is done, 1 is subtracted from each of the three emotions "anger", "sadness", and "happiness" by the subtraction unit 462, and 3 is added to the emotion "joy" by the addition unit 463. If the emotion "anger" is exhibited when a predetermined action is done, 1 is subtracted from each of the three emotions "joy", "sadness", and "happiness" by the subtraction unit 462, and 3 is added to the emotion "anger" by the addition unit 463. The emotion having the greatest value is selected from the four emotions by the selection unit 464, and the selected emotion is set to be the dog's current emotion. The emotion determining tables illustrated in Figs. 11A and 11B have been stored, together with calculation expressions, in a storage unit, such as in the recording medium 40.

**[0094]** In this game, it is not essential that the four emotions "joy", "anger", "sadness", and "happiness" be required. Only two or three emotions may be selected from the four emotions. Alternatively, other emotions may be added to the four emotions.

(3) Demands from the dog to the game player

**[0095]** In the game used in this embodiment, various demands or behavior are autonomously made from the dog to the game player regardless of instructions given from the owner, i.e., the game player. More specifically, the dog makes various demands for, for example, "walking", "playing", "cleaning after doing the toilet", "stroking", "feeding", etc., according to predetermined conditions, and also makes some action in response to "persistent orders" (rebellious action against the owner). It is determined whether the above-mentioned demands, except for a demand for "feeding", are performed according to the relationships between the dog's temperament shown in Fig. 6 and the cumulative values of the predetermined basic parameters partly shown in Fig. 7.

**[0096]** According to the above-described demands, the game can be made dynamic and highly entertaining. Meanwhile, the game player is able to recognize the dog's current state by checking the dog's behavior, thereby performing a suitable action on the dog. In this game, it is not necessary that all the demands be provided. Some of the demands may be selected, or other