

Fig. 2

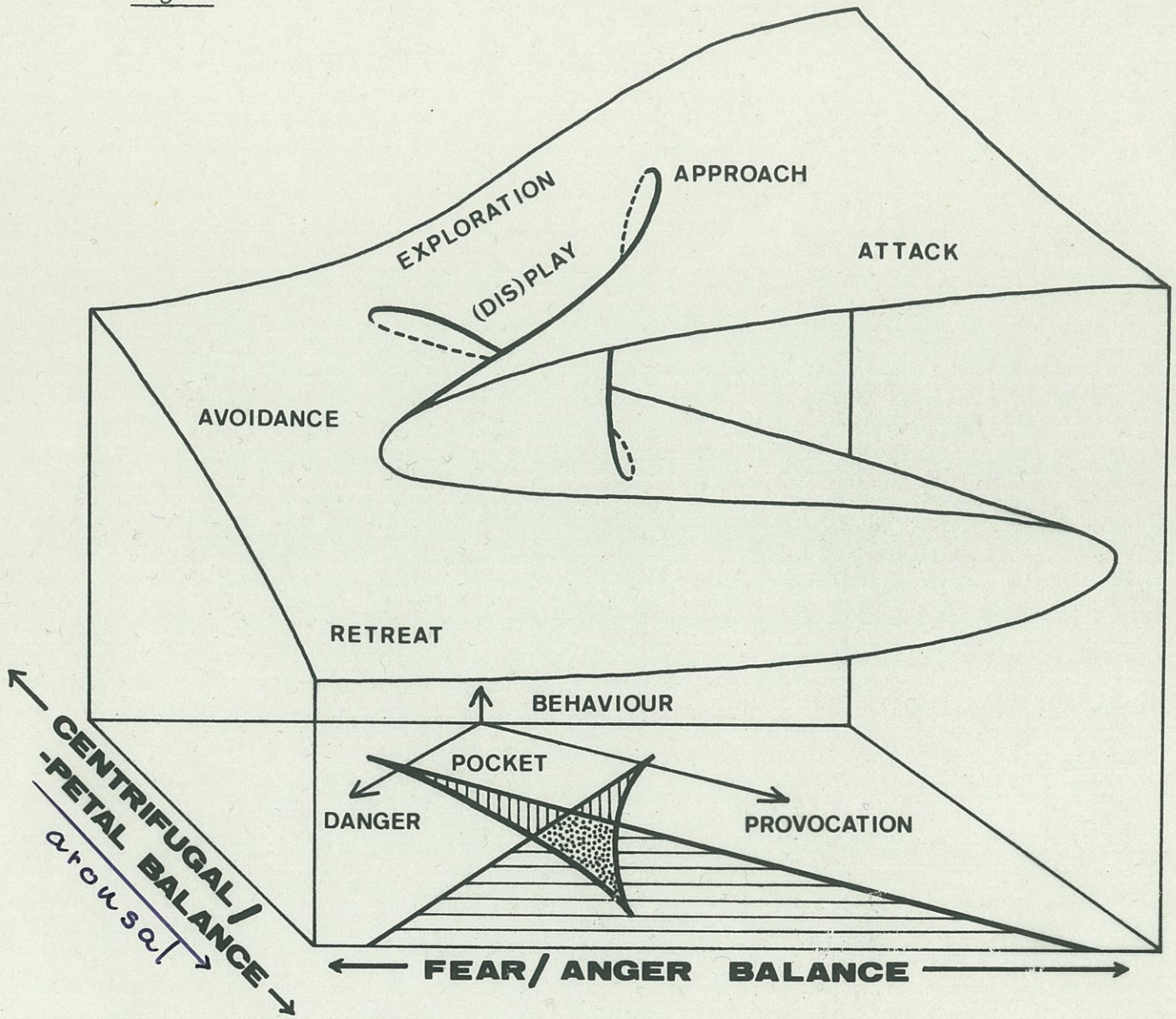

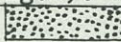


Fig.2: BUTTERFLY CATASTROPHES

An increase of danger and provocation induces agonistic behaviour, which is expressed as attack or escape, depending on the equilibrium between fear and anger. When centripetal forces do not reach extreme values however, playful interaction is also possible, depending on the equilibrium between anger and fear and depending on the previous emotional state (similar to the explanation of Fig.1). Play is possible in the motivational space indicated by **pocket** ,  and  in (the bottom sheet of) Fig.2. The dotted area indicates three possible behavioural modes. Horizontal lines indicate bistability between attack and escape and vertical lines indicate bistability between play and other behaviour. Catastrophic changes in behaviour may occur in half of the motivational states that are indicated by the lines on the bottom projection, depending on the previous motivational state.