In an animal's environment certain objects and events stand out as significant, as eliciting response. Thus the smell of food excites the dogfish to search for it; any small moving object is harpooned as prey by the dragonfly nymph; a sudden shadow cast upon the tubeworm causes it to retract its crown of tentacles with lightning rapidity. Such objects and events I propose to call valent, and the criterion of valence, is, simply, behavioural response.

The word was first introduced (1931) as a translation of Lewin's term „Aufforderungscharakter“; what I propose here is a generalised use of it, retaining however its essential meaning as defined by Lewin. Any object or event in respect of which the animal manifests behaviour will be said to possess valence, to be valent. It is to be noted that the definition gives no indication as to what kinds of objects and events possess valence; the definition is quite formal and general; any object or event may be valent, if at any time an animal manifests behaviour with respect to it.

Instead of saying that an object or event possesses valence, one might call it a significant or meaningful stimulus. But this is open to objection on account of the teleological connotation of the words significance and meaning. Used in this connection, these might be taken to imply (1) that the animal is aware of the significance or meaning of the stimuli to which it responds, or (2) that the stimuli eliciting response are, as a class, significant or meaningful in relation to the well-being of the animal, as being, for example, signs of food or of danger. But neither of these propositions is a self-evident truth, hence it is preferable to employ a neutral term like valence, which can be exactly defined, and carries with it no extraneous reference.

It is desirable also to avoid the use of the word stimulus, which has acquired a physiological meaning, connoting a physico-chemical process or event impinging upon the sense-organs of the animal and determining a
physiological reaction. We shall see that valence is not a quality of the object or process per se, but depends essentially upon the needs and "interests" of the animal; in this respect a valent object or event differs profoundly from a physico-chemical stimulus.

The fact that valence is relative to the animal’s momentary psychobiological state, and especially to its needs, is emphasised by Lewin (1935), who writes: "The valence of an object usually derives from the fact that the object is a means to the satisfaction of a need, or has indirectly something to do with the satisfaction of a need. The kind (sign) and strength of the valence of an object or event depends directly upon the momentary condition of the needs of the individual concerned; the valence of environmental objects and the needs of the individual are correlative" (p. 78).

A simple example of this truth is the fact that to a satiated animal food-objects lose their positive valence and may even acquire negative valence, eliciting movements of avoidance. To the dog in pursuit of a bitch on heat objects have valence only in so far as they further or hinder the attainment of his desire; other objects, normally valent, become neutral or indifferent; he neglects his food and his home.

Perhaps the most striking and instructive example of the relativity of valence so far studied is that described by Brock (1927) in his investigation of the "Umwelt" of the hermit crab Pagurus arrosor with special reference to its commensal anemone Sagartia parasitica. This hermit-crab has certain requirements, in the absence of which it is uneasy and manifests behaviour directed towards satisfying these needs. Its main requirements are (1) a gastropod shell into which it can insert its abdomen and carry round with it as a mobile "house", (2) one or more specimens of Sagartia parasitica planted on its shell, (3) sufficient food. When all these (and other) needs are satisfied the Pagurus is in a state of behavioural equilibrium, a "stable situation" (Brock), and shows no active behaviour.

If now all the anemones are removed from the house of a well fed Pagurus it will search round for a Sagartia, and, finding it, tap it and stroke it to induce it to lose tonus and loosen its hold on the bottom; it will then swing it up and press it against the shell until it adheres. The Sagartia has in this case its normal valence as "something to be placed on the shell".

If however a Pagurus which has been long deprived of food, but possesses a house well covered with Sagartia, is given one of these anemones, it will strip pieces off it and eat them. The Sagartia has lost its normal valence and acquired food-valence.

Thirdly, a well fed Pagurus, with its house removed, treats a Sagartia