various grades of intensity. In accordance with this, it seems from experimental evidence to be *relatively indefatigable.* It thus satisfies a demand that the principle of the common path must make regarding it.

3. In the transition from one reflex to another a final common path changes hands and passes from one master to another. A fresh set of afferent arcs becomes dominant on the supersession of one reflex by the next. Of all the conditions determining which one of competing reflexes shall for the time being reign over a final common path, the *intensity* of reaction of the afferent arc itself relatively to that of its rivals is probably the most powerful. An afferent arc that strongly stimulates is *caetcris paribus* more likely to capture the common path than is one excited feebly. A stimulus can only establish its reflex and inhibit an opposed one if it have intensity. This explains why, in order to produce examples of spinal inhibition, recourse has so frequently been made in past times to *strong* stimuli. A strong stimulus will inhibit a reflex in progress, although a weak one will fail. Thus in Goltz’s inhibition of micturition in the “ spinal ” dog a *forcible* squeeze of the tail will do it, but not, in the present writer’s experience, a weak squeeze. So, likewise, any condition which raises the excitability and responsiveness of a nervous arc will give it power to inhibit other reflexes, just as it would if it were excited by a strong stimulus. This is much as in the heart of the Tunicate. There the prepotent spot whence starts the systole lies from time to time at one end and from time to time at the other. The pre­potent region at one end which usually dominates the common path is from time to time displaced by local increase of excitability at the other under local distension of the blood­sinuses there.

In judging of intensity of stimulus the situation of the stimulus in the receptive field of the reflex has to be remembered. One and the same physical stimulus will be weak if applied near the edge of the field, though strong if applied to the focus of the field.

Crossed reflexes are usually less easy to provoke, less reliable of obtainment, and less intense than are direct reflexes. Con­sequently we find crossed reflexes usually more easily inhibited and replaced by direct reflexes than are these latter by those former. Thus the crossed stepping-reflex is easily replaced by the scratch-reflex, though its stimulus be continued all the time, and though the scratch-reflex itself is not a very potent reflex. But the reverse can occur with suitably adjusted intensity of stimuli.

Again, the flexion-reflex of the dog’s leg is, when fully developed, accompanied by extension in the opposite leg. This crossed extensor movement, though often very vigorous, may be considered as an accessory and weaker part of the whole reflex, of which the prominent part is flexion of the homonymous limb. When the flexion-reflex is elicitable poorly, as, for instance, in spinal shock or under fatigue or weak excitation, the crossed ex­tension does not accompany the homonymous flexion and docs not appear. But, where the flexion-reflex is well developed, if not merely one but *both* feet be stimulated simultaneously with stimuli of fairly equal intensity, steady flexion at knee, hip and ankle results in *both* limbs, and extension occurs in neither limb. The contralateral part of each reflex is inhibited by the homolateral flexion of each reflex. In other words, the more intense part of each reflex obtains possession of the final common paths at the expense of the less intense portion of the reflex. But if the intensity of the stimuli applied to the right and left feet be not closely enough balanced, the crossed exten­sion of the reflex excited by the stronger stimulus is found to exclude even the homonymous flexion that the weaker stimulus should and would otherwise evoke from the leg to which it is applied.

It was pointed out above that in a number of cases the transference of control of the final common path FC from one afferent arc to another is *reversible.* The direction of the trans­ference can *caeteris paribus* be easily governed by making the stimulation of this receptor or that receptor the more intense. A factor largely determining whether a reflex succeed another or not is therefore intensity of stimulus.

4. A fourth main determinant for the issue of the conflict between rival reflexes seems the functional species of the reflexes. Reflexes initiated from a species of receptor appa­ratus that may be termed *noci-ceptive* appear to particularly dominate the majority of the final common paths issuing from the spinal cord. In the simpler sensations we experience from various kinds of stimuli applied to our skin there can be distinguished those of touch, of cold, of warmth and of pain. The adequate stimuli for the first-mentioned three of these are certainly different; mechanical stimuli, applied above a certain speed, which deform beyond a certain degree the resting contour of the skin surface, seem to constitute *adequate* stimuli for touch. Similarly the cooling or raising of the local temperature, whether by thermal conduction, radia­tion, &c., are *adequate* for the cold and warmth sensations. The organs for these three sensations have by stigmatic stimuli been traced to separate and discrete tiny spots in the skin. In regard to skin-pain it is held by competent observers, notably by V. Frey and Kiesow, that skin-pain likewise is referable to certain specific nerve-endings. In evidence of this it is urged that mechanical stimuli applied at certain places excite sensations which from their very threshold upward possess unpleasantness, and as the intensity of the stimulus is increased, culminate in " physical pain.” The sensation excited by a mechanical stimulus applied to a touch-spot does not evoke pain, however intensely applied, so long as the stimulation is confined to the touch-spot. The threshold value of mechanical stimuli for touch-spots is in general lower than it is for pain-spots; and conversely the threshold value of electrical stimuli for touch-spots is in general higher than it is for the spots yielding pain. Similarly it is said that stimulation of a cold spot or of a warm spot does not, however intense, evoke, so long as confined to them, sensa­tions of painful quality. But pain can be excited not only by strong mechanical stimuli and by electrical stimuli, but by cold and by warmth, though the threshold value of these latter stimuli is higher for pain than for cold and warm spots. If these observations prove correct there exist, therefore, numerous specific cutaneous nerve-fibres evoking pain.

A difficulty here is that sensory nerve-endings are usually provided with sense organs which lower their threshold for stimuli of one particular kind while raising it for stimuli of all other kinds; but these pain-endings in the skin seem almost equally excited by stimuli of such different modes as mechanical, thermal conductive, thermal radiant, chemical and electrical. That is, they appear *anelective* receptors. But it is to be re­marked that these agents, regarded as excitants of skin-pain, have all a certain character in common, namely this, that they become *adequate* as excitants of pain when they are of such intensity as *threatens damage to the skin.* And we may note about these excitants that they are *all able to excite nerve* when applied to naked nerve *directly.* Now there are certain skin surfaces from which, according to most observers, pain is the only species of sensation that can be evoked. This is alleged, for instance, of the surface of the cornea—a modified piece of skin. The histology of the cornea reveals in its epithelium nerve-endings of but one morphological kind; that is, the ending by naked nerve-fibrils that pass up among the epithelial cells. Similar nerve-endings exist also in the epidermis generally. It may therefore be that the nerve-endings subserving skin- pain are free naked nerve-endings, and the absence of any highly evolved specialized end-organ in connexion with them may explain their fairly equal amenability to an unusually wide range of different kinds of stimuli. Instead of but one kind of stimulus being their adequate excitant, they may be regarded as adapted to a whole group of excitants, a group of excitants which has in relation to the organism one feature common to all its components, namely, a *nocuous* character.

With its liability to various kinds of mechanical and other damage, in a world beset with dangers amid which the individual and species have to win their way in the struggle for existence,