

(iii) Extract has all the effects of the sympathetic system.

(iv) It contains adrenaline, a crystalline substance to be derived probably from the tyrosine of protein, an enormously powerful drug. Theory based on this evidence is that the medulla is developed as a tissue to aid the sympathetic nervous system, to follow up its action and prevent its exhaustion (the sympathetic system is used in stress, for fight or flight).

(4) *The Thyroid*.—(a) The gland receives an enormous blood supply containing vesicles with colloid material inside.

(b) Under-activity of the gland in the young produces *cretinism* and in the older *myxœdema*. Over-activity produces *exophthalmic goitre*. Goitres may accompany under-activity or over-activity.

(c) (i) Excision produces myxœdema.

(ii) Excision and graft staves off the effect of excision.

(iii) Extracts or feeding stave off or alleviate the effects of under-activity and in excess produce the effects of over-activity.

(iv) The gland contains *iodine* partly as thyroxine which is a tetra-iodo compound of a tyrosine hydroxy phenyl ether.

Theory based as the evidence is that the gland presides over the manufacture of thyroxine and similar iodine containing substances which are essential in the chemical working of the body. This is confirmed by the fact that thyroid trouble runs parallel with deficiency of iodine in the soil and therefore in the vegetable food of the inhabitants of a country.

(5) *The Pituitary*.—(a) The gland is well supplied with blood, looks like an endocrine organ, and contains vesicles with colloid inside. This colloid is not that of the thyroid.

The Pituitary is derived partly from a downgrowth of the brain, partly from an upgrowth of the epithelium of the fetal roof of the mouth.

(b) Over-activity in the young produces gigantism, in the adult *acromegaly*.

Under-activity in the young produces infantilism and nanism, and in the adult *dystrophia adiposogenitalis*. *Diabetes insipidus* is related to damage of the pituitary.

(c) (i) Excision leads to death, partial excisions to *dystrophia*.

(ii) Excision, plus graft, staves off these symptoms for a time.

(iii) Feeding the gland in birds and rats precipitates sexual maturity, implantation of macerated anterior lobe may do the same or in large amounts produce lutcinisation of the ovaries and cessation of the œstrus cycle. Injection of extracts produces the former or latter according to the nature of the extract. Extracts of the posterior lobe (including *pars intermedia*) produces contraction of all unstriated muscle (including uterus), rise in blood pressure, and an antidiuretic effect. (The drug pituitrin is useful in the second stage of labour, in surgical shock and in diabetes insipidus.)

Theory.—The anterior lobe governs the onset of sexual maturity and the growth of the skeleton and the *pars intermedia*, carbohydrate and fat metabolism, the contraction of unstriated muscle, especially in parturition the permeability of the capillaries and the activity of the kidney.

#### AN IMPORTANT REQUEST.

In the case of the death of a Fellow or Member of the British College of Nurses relatives are asked to communicate with the Secretary of the College at 39, Portland Place, London, W.1, so that their names may be inscribed in the beautiful Book of Remembrance.

## SUPERSTITION.

By SIR ROBERT ARMSTRONG-JONES, C.B.E., M.D.  
An address (abridged) given at the British College of Nurses on February 13th.

So long as darkness has existed in contrast to light, so long as moonlight has been known to man, so long as the mountain cave, the waterfall and the forest have had an interest for human beings, just so long has superstition prevailed; that is, so long has the imagination of mankind been kindled to suspect the existence of supernatural beings—gods or devils, giants and dwarfs, hobgoblins and gnomes, spirits and genii—in order to explain the actions of their daily life.

Superstition is the encroachment of faith on the rights of reason and knowledge. Superstition is founded on ignorance, and is dispelled by education, information and instruction. It is therefore the prerogative of the illiterate rather than the cultured, and one of the characteristic features of primitive and savage man. Although it is more the failing of the poor and the ill-educated to believe in fortune-telling, "wise-women" and planet rulers; the wealthy and the educated not infrequently indulge in superstition, for many believe in table-turning and spirit-rapping. Indeed, some have even considered themselves to be in communication with the spiritual world.

It is difficult to explain these beliefs among sensible people, but, as we know, sensible people accept their social and political news and views from their daily papers. They abrogate their personality and believe what is told them. It is easier to believe a newspaper we read daily than a stranger, and it is easier to believe facts when they harmonise with an accepted system of knowledge, than when they are presented as isolated events. Most Christians believe in the miracles of the Bible, while they regard as superstition the belief that the blood of Saint Januarius—the patron Saint of Naples—liquefies every 19th of September. Our belief in the miracles harmonises with the general body of the Christian doctrine, which we therefore accept.

Ordinarily, we reject supernatural stories because they do not fit in with the conclusions we ourselves have experienced, or the theories we have formed, yet fear, terror, or other emotions may compel us to believe in what we cannot prove or disprove to the satisfaction of our senses. Most of us are unconscious of the narrow range of our own experience, and so involuntarily come to believe in superstition. Psychologically, this suggestion is based upon the instinct of fear, although curiosity, awe, and reverence also enter into it. It implies that the elements of Nature, such as the sun and moon, the planets and thunder, are personified and deified and certain stones and metals or herbs come to be accredited with supernatural powers, as do charms and amulets; certain symbols and signs come to have prophetic meanings. Superstition cannot be described as an innocent mistake; it is a definite wilful belief, and this without shame, for it is a belief in what is not only contrary to the laws of Nature as generally accepted, but also contrary to experience and to common sense.

In the past, superstition related mainly to religion. The idolatry of the heathen, which is fetichism, was based upon religious belief and credulity. We read in the Scriptures that the chosen people could not be restrained from idolatry. They made the Will of God of no avail by their traditions, for they substituted ceremony in place of the religion of their fathers. Probably this custom was imitated and adopted by them from the Egyptians, with whom the Israelites sojourned for over 400 years. The Egyptians acquired their superstitions from the Persians and the Chaldeans, and we can trace superstition far back

[previous page](#)

[next page](#)