

first-cousin marriages are about 1½ per cent. of all marriages; in the urban districts, 2 per cent.; in the rural districts, 2½ per cent.; in the middle and upper middle class, or in the landed gentry, 3½ per cent.; and in the aristocracy, probably 4½ per cent.

Mr. Darwin then collected returns from a number of lunatic and idiotic asylums regarding the proportion of the inmates who were the offspring of consanguineous marriages, and found that where the figures obtained were most reliable, the proportion exceeded but slightly, if at all, the ratio of first-cousin marriages in the country at large, being from three to four per cent. Among deaf-mutes, also, the offspring of first-cousin marriages was almost exactly the same as the proportion of such marriages for the town and country.

Regarding the fertility of first-cousin marriages and of the descendants of such marriages, against which Professor Mantegazza, M. Boudin, and others have pronounced, Mr. Darwin finds, from figures obtained from "Burke's Landed Gentry" and the "Peerage," that the fertility, as shown by the number of sons surviving infancy, is somewhat greater in marriages of first cousins, and where one of the parents was the child of a first-cousin marriage, than when the parents were not consanguineous, the average number of sons in each of these three classes being respectively 1.92 to 2.07, 1.93, and 1.91. As to the youthful death rate, the evidence, from the small number of families (37) for which these data existed (all from the peerage), gave a slightly increased death rate in early years for the children of consanguineous parents.

While admitting a certain amount of truth in the popular sentiment in regard to the evil effects upon offspring of marriages of kin, Mr. Darwin holds that the evil has been much exaggerated.

The writer of the present article collected a series of cases of consanguineous marriages, whose results were embodied in a paper read before the Massachusetts Medical Society, June, 1885, and published in its "Proceedings" for that year. In 108 such unions 103 were fertile, producing 413 children. Excluding from the category of the "healthy" all who had any physical defect, including even polydactylism and strabismus, all who were below the average in mental or bodily vigor, all who developed phthisis or any other constitutional taint, even though it did not appear till late in life, and all who died in infancy, except when the death was known to be from some acute malady, 312 of the children, being 75½ per cent. of the whole number, were classed as healthy. The principal diseases and defects comprised 12 cases of deaf-mutism (all occurring in a small isolated community on the island of Martha's Vineyard), 7 of insanity, 13 of idiocy, and 15 of consumption. The fertility of all of the unions which were known to have lasted twenty-five years or over, 57 in number, was on an average 5 children to each couple.

There were 17 consecutive consanguineous marriages, *i. e.*, those in which one or both the parties marrying in kinship were themselves descended from a similar union. Of these marriages only 9 had lasted the whole child-bearing period, and these produced 50 children. In all, from the 17 marriages, 15 being fertile, 68 children were born, of whom 48 were "healthy."

There were also 128 marriages not consanguineous, but to which one or both of the parties were descended from persons related. Some of the marriages had lasted but a short time; but 110, or 86 per cent., had already proved fertile, with at least 372 children, and probably many more. Only 47 of the unions were known to have lasted twenty-five years or over, and these produced 240 children.

An analogy of considerable significance to the question of consanguineous unions in the human subject is to be drawn from the so-called in-and-in breeding of animals. Bakewell, the brothers Collings, and Bates, in England, were the first to advocate and practise incestuous breeding among cattle. The Leicester breed of sheep and a breed of long-horned cattle were created by Bakewell on this plan, and with a good measure of success. The

"Duchess" short-horned cattle, produced by Bates in the same manner, were also famous for a time, but have now become nearly extinct. Cattle breeders at the present time are divided in opinion as to the advantages of thorough in-and-in breeding, some claiming that this method in time will impair the fertility of the stock, and pointing for proof of this to the numerical deterioration of some of the breeds first formed on this plan. Their opponents say, on the other hand, that as long as Bakewell himself lived to give the benefit of his judgment to the selection of the individuals to be bred from, the stock retained its excellence. Moreover, there are numerous examples to be adduced in which incestuous breeding has succeeded in not only developing, but perpetuating a breed for long periods. M. Beaudouin tells (*Comptes Rendus*, August 5th, 1862) of having inbred merino sheep very closely for twenty-two years without in any degree diminishing their fertility. The "Jersey" cattle have for one hundred and fifty years been bred on a small island only six miles by eleven (no larger than a western ranch), with no intermixture of foreign blood; yet, when first known to the outside world they were already an established breed, noted not only for their excellence as butter-makers, but for their beauty, docility, and intelligence. The early importations of these cattle to this country were, of necessity, very closely inbred. Indeed, some of the most striking instances of in-and-in breeding on record are among Jersey cattle. Take, for instance, the St. Helier strain. This bull was put successively to his daughter and granddaughter, and by the latter begot a son (Oxoli), which was also a great-grandson, and a daughter (Chromatella), which was also his great-granddaughter. Each of these animals had 87½ per cent. of the blood of their great-grand sire (seventy-five per cent. more than has a child by a non-consanguineous union). Chromatella was bred to the son of her brother Oxoli, and dropped two daughters, both healthy and good breeders. Oxoli also bred to three daughters of St. Helier (having fifty per cent. of the latter's blood), one of them being his own (Oxoli's) granddam. He also bred to several cows having seventy-five per cent. of the blood of St. Helier, of which he himself had 87½ per cent. In fact, the history of this strain shows a large number of unions of the very closest possible nature, a great majority of the descendants having more than fifty per cent. of the blood of their progenitor. Yet for excellence not only of the butter record, but of general health, and for fertility, the strain is most remarkable. Again, the bull Favorite, himself highly inbred, was put successively to his daughter, daughter's daughter, and daughter's daughter's daughter, he being the sire in each case. The result of this last union was a cow having 93¼ per cent. of the blood of Favorite, and the mother of some of the most remarkable animals known.

Among racing horses "Rysdyk's Hambletonian" may be mentioned as an example of a closely inbred horse. Yet it is stated on good authority that during the year 1883, among 190 new performers that entered the list of 2,300 trotters, 41 per cent. were by Rysdyk's Hambletonian, his sons and grandsons; while 20 per cent. of the residue were more or less closely related to Hambletonian.

It is important to bear in mind that what is called "in-and-in breeding" among cattle breeders, means a closeness of mating which is not only out of the question in the human subject on ethical considerations, but is far beyond the bounds of physical possibility. In mankind, a marriage between first cousins would give the offspring but twenty-five per cent. of the blood of the common ancestor of the parents. The child of parents who are uncle and niece will have thirty-seven per cent. of the blood of the common ancestor; and even the product of the union of brother and sister will have but fifty per cent. of the blood of one of its grandparents. In other words, unions equivalent in closeness to the nearest consanguineous marriages made among men are not considered by cattle-breeders worthy the name "in-and-in" at all. Mr. Campbell Brown, speaking (as a disbeliever

in incestuous breeding) of a horse that had been claimed as closely inbred, says "that he had only twenty-five per cent. of the blood of a certain other stallion," and adds "that that is a degree of inbreeding to which there can hardly be rational objection." Yet this is just the per cent. which the child of first cousins has in the blood of their common ancestor.

In comparisons between the results of in-breeding in animals and in man, we are to remember of course that in the former case there is a studied selection of the qualities in the individuals to be mated, while in the union of human beings affection is usually the only guide.

In estimating, however, the effect of consanguinity pure and simple as an element in the determination of offspring, it is proper to take it where it is free from all possible complication by inherited morbid influences. If cattle breeders, in their endeavors to perpetuate a fine breed by the principles of natural selection, can win success out of in-breeding, it follows that there is nothing in the fact of consanguinity itself in parents which of necessity deteriorates the offspring. When, therefore, it is objected that human consanguineous marriages should not be compared to in-and-in breeding among animals, for the reason that in the former the principles of natural selection are not observed as they are in the latter, it may be answered that what is the same in the two classes of animal is unions of kindred, and that it is those similar conditions only which it is sought to compare. It is not denied that "like produces like," whether of bad or of good, and if a union of two imperfect individuals of allied blood produces diseased or defective offspring, it is in obedience to a law of nature too universal to be affected in any way by the accident of consanguinity.

The objection has also been made that the product of in-and-in breeding is not a perfect animal, but is, as Dr. Mitchell has expressed it, "a saleable defect," a "perfect pathological specimen," less useful to himself if he were to be left to himself and deprived of artificial care and keeping than the natural animal would be under like circumstances. Here again the influence of consanguinity has been confounded with that of natural selection. In accordance with the latter principle, any quality may be selected as the aim of breeding—as speed or strength in the horse; milk, draught, or flesh in cattle; wool or fat in sheep, etc. According to the point of view of the observer will the product of such breeding be intrinsically beautiful and valuable, or the reverse. A breed of pigs may be produced so fat that they cannot stand, and certainly "less useful to themselves" than in a natural state. Yet we have it on the best authority that no horse bears fatigue so well, or recovers from its effects so soon, as the thoroughbred. "Indeed," says an eminent hunting authority, "there is scarcely a limit to the work of full-bred hunters of good form, constitution, and temper." The argument that the thoroughbred animal is less "useful to himself," because he has become dependent on artificial conditions of food and shelter, would prove equally well that civilized man is inferior to the aborigines.

Deaf-mutism is a defect which has been said to bear a special relation to marriages of near kin. This general impression is doubtless due to the undeniable frequency of deafness among the children of unions where one and especially where both of the parties are deaf. This liability is greatly enhanced if the deafness of the parents is congenital, or if either of them has deaf relatives. On this ground Professor Bell has urgently advised that deaf-mutes, if they marry, should select hearing persons and those too, only, who have no deaf relatives. He says that a deaf person (not born deaf) who has no deaf relatives will not increase the liability to deaf offspring by marrying a blood relation; but a congenital deaf-mute under the same conditions he thinks will. While a deaf person, so born or not, who has deaf relations will especially increase this liability in the offspring if he marries a relative on the same side of his family in which other cases of deafness have occurred.

Boudin asserted that deaf-mutism was specially selected by Providence as the punishment for the violation of

"nature's law" involved in consanguineous marriages, in order that man, as the "talking animal," may bear the brunt of the penalty! But Dr. Child has shown that deaf-mutism is simply a congenital deafness to which mutism has succeeded because the individual cannot hear himself speak, and that the same defect, congenital deafness, may and does exist in the lower animals. Indeed, the whole drift of modern science is against such attempted distinctions. Man is physiologically an animal, and in the manner of his propagation is subject to the same laws as any other animal. If, then, as seems to be the case, analogies drawn from the lower animals show that even "in-and-in breeding," in the hands of practical men working for pecuniary returns, gives good results in the form, usefulness, and fertility of their stock, it is a fair inference that at least the occasional admixture of a comparatively small amount of kindred blood, involved for instance in a marriage of cousins, is innocuous in the human species.

How, then, shall we reconcile the above conclusions with figures such as those published by Bemiss, Howe, Mitchell, and Boudin? Have no unfortunate results been found from consanguineous unions? Undoubtedly; but such results have followed for the most part, and probably exclusively, where consanguineous marriages have intensified morbid characteristics of both parents. Such unions may transmit and intensify admirable attributes as well as undesirable ones. Children have a tendency to revert to a common ancestor. If the common ancestor of both parents is not a remote one (by reason of their consanguinity), the type to which the child reverts is not the common type of the race, but is that of this comparatively recent ancestor, say, a grandfather. Should that ancestor possess exceptionally desirable qualities, the child stands a chance to be above the average of its fellows. But if this common progenitor has a depraved or diseased quality of mind or body, it is more likely to find expression in the child inheriting from him in two lines, than in that inheriting from him only in one. Because any newly acquired taint in an individual is much less likely to lose itself in his descendants if diluted in an extraneous strain than if intensified by being multiplied into itself, and so going on in a sort of geometrical increase.

It must be admitted that many families do possess physical and mental traits whose perpetuation would be undesirable. And it is this fact which lends whatever danger there is to consanguineous marriages. It is perfectly true that what has been called "social consanguinity" in marriage is open to much the same objections as true consanguinity. If marriages are constantly contracted within the same locality and social environment, the resultant offspring may become as eccentric mentally and feeble physically. Certain royal families have suffered perhaps as much from the lack of this social dilution as from anything else short of the actual in-breeding of disease.

To conclude, a danger exists to the offspring of related parents if these parents are sharers in any family disease or tendency thereto, and not otherwise.

Charles F. Withington.

CONSCIOUSNESS, DISORDERS OF THE.—In any discussion, having for its object the setting forth of some aspects of the subject of "Disorders of Consciousness," it is desirable that certain features of normal consciousness should be presented, and yet from the very complexity of this latter subject such a preliminary for the present purposes might seem fruitless.

In the present exposition it is assumed that it is not known what consciousness is: one is cognizant only of what one feels at any particular moment. Reasoning along such lines many modern psychologists assume the "stream-like character of consciousness," with its continuous flow; the moment's consciousness being in focus as the stream goes by. This moment's consciousness is made up dimly of the apperceptions of things about to come into consciousness and faintly fringed about with

perceptions which have come and gone or are out on the edge of the conscious field. Thus in every moment's consciousness there are parts which are vivid and sharply outlined, and parts, probably by far the greatest number, which are faintly foreshadowed and dimly outlined, and still others which make an impress somewhere on the cerebral mechanism, which never under ordinary circumstances are known, and are thus truly called sub-conscious. Thus, restricting the consideration of a moment's consciousness, there exists an immense gamut of conscious perceptions which may be traced through the various grades of definiteness to the vast mass of sub-conscious contacts. This gamut even with the most primitive intelligence is of immense scope, and its complexity, for man, in time and in space, and as registered on the organs of sight, hearing, touch, taste, smell, and the various illy defined sense organs, with their sensory elements, is of the complexity of human life and human experience.

Digressing for a moment, it is a corollary that anything which interferes with any incoming tract, by cutting out a certain path of incoming sensations, interferes with the character of the moment's consciousness and with the interpretation of it by the subjective ego and society at large. Such a corollary has its obvious relationship to many of the insanities, especially bearing on the development of hallucinatory and delusional states, since many of these have been shown to be based on organically defective sense organs conveying defective sense perceptions.

Lloyd Morgan's categories of the various conscious states is here partly followed. Certain molecular disturbances bring about psychical states. Those disturbances which are dominant become focal in consciousness, or the mind is fully conscious of such. Those that are sub-dominant bring about marginal or sub-conscious psychical states, and finally those impulses or irritations which are infra-dominant act, in the psychical sphere, below the threshold of consciousness and bring about infra-conscious or extra-marginal psychical activities. All of these have their determining influence on conduct; and conduct is the chief if not the only objective sign by which we can judge of conscious states in others than ourselves.

CEREBRAL LOCALIZATION.—The general biological principle of the concentration of energy as a feature of advanced evolutionary development finds its expression for the psychical sphere in the more or less distinct localization of definite functions to certain portions of the brain.

For the purely vegetative activities such localization is fairly definite, and we know that the areas governing the various members are accurately located. The important sense organs also show a like integration, and the localization of the centres for sight, hearing, smell, and motor speech now admits of little question.

It is, by more or less common consent, based on general grounds, as well as on the data afforded by physiological experiment and pathological observation, as well as by the study of the comparative psychology of the lower animals (Romanes, Darwin, Morgan, Mills, and Thorndike), that the higher mental processes (*i. e.*, those that are more complex and those which have developed late in the evolution of the race) are located in the frontal lobes of the brain; but it is certain that as far as the ego, taken in its totality, is concerned, no such localization can exist. The whole brain is the psychical organ, and the sense of the ego depends on such a multitude of sensory impressions that its location is coexistent with the nervous system in its totality. It is to be borne in mind that the complex nexus of associational fibres should be considered constant factors in the idea of a consciousness. The great modifications that occur in consciousness—due to the cutting out of action of certain of such associated fibres—is a constant feature in certain hemiplegic states, and probably some similar pathological entities lie at the foundation of some of the modifications of consciousness in some of the insanities, notably general paresis.

Within recent years the labors of the histopathologists have brought into prominence the importance of minute structural changes of the connections of the various nerve processes; collaterals, axis cylinders, and dendrites, forming plexuses of communication between various systems of nerve-cell groups. Such changes are closely correlated and are the probable direct causative agents of many of the symptoms of mental disease, such as loss of attention, diminished initiative, amnesia, blunting of the higher ethical ideas, insomnia, and many of those psychical activities which modify conduct so largely, and hence are representative of the empirical ego. As put by Mills, from Andriezen: "The earliest changes in many if not most of the insanities are in the cortical fields of conjunction, the regions in which anatomical units or groups of them are brought together. These fields of conjunction become less and less permeable to all forms of excitation, and one of the first results is 'delay in reaction time.' The association system, which gives way first in these cases, is probably represented most in the polymorphic layer of the cortex; it is the last and the least organized, although subserving the highest functions, especially volition, and in chronic processes of disintegration it is the first to go."

From such a purely preliminary sketch it can be seen that it is futile to attempt to speak of a localization of consciousness as if such a faculty were a thing *per se* rather than an attribute of psychical nerve activities.

Connected, however, with this question there are to be considered certain localizations of some of the more clearly defined psychical activities.

Evidence derived from the lower animals points to the fact that following the ablation of the prefrontal lobes there is more or less mental degradation. Close attention is lost, and observation which looks for the safety of the animal is often notably affected. Attention, judgment, memory, and notably inhibition are factors of the ego which are notably modified by disease or injury to the frontal lobes, and with such are associated hesitation, fear, uncertainty, and motor restlessness due to impaired inhibition.

Much discussion has been indulged in with reference to the functions of the basal ganglia and the relations of such to the phenomena of automatism, double consciousness, and the like. While much is known from the investigations of Ferrier, Ziehen, March, Danilewsky, Hale, White, Bourneville, and others relative to lesions in the caudate and striate nuclei, little of definite value for generalization has been thus far adduced. Cortical connections are definite though slight.

Much the same uncertainty exists for the functions of the thalamus; its connections, however, with the cortex are more direct, and it is widely believed that it serves as a special centre intermediate between special sensory centres and the cerebral cortex. The symptomatology of pure thalamic involvement is still uncertain.

WHAT ARE DISORDERS OF CONSCIOUSNESS?—From the unconsciousness of death and that of accident, and the profound intoxications, to sleep; through the simple stages of consciousness in many of the sleep phenomena, somnambulism, the hypnotic state and its allies; through normal waking consciousness; through the active exalted states of dramatic abandon, ecstasy, the minor intoxications, to the distinctly diseased emotional states of hysteria and epilepsy and the insanities, finally to the living death of dementia, there is the gamut of the human psychical activities divided into a few cardinal categories which admit of general classification.

Just what shall constitute a normal state and what an abnormal state must be left largely to the study of majorities. Conduct is the great criterion of consciousness, and for most practical purposes it may be assumed that disordered consciousness is correlative with disordered conduct.

In discussing the subject of disordered consciousness it has been the custom to describe three types: exalted, diminished, and perverted states. While this classification is extremely convenient for many purposes, it fails

to give an idea of the clinical significance of any particular phase. It is only too frequently the case that the same clinical entity, hysteria or epilepsy, for example, will demonstrate all these separate states, which at times merge within each other or follow one another with bewildering rapidity.

The more important question seems to be: Given a definite mental state, which, judged from conduct, departs so far from what a broad experience teaches to be a fairly normal state, to what factor or factors is such an abnormal state due, into what category does it fit, and how can it best be regulated or controlled to insure the best results to the individual and to society?

The subject of categories of the clinical groupings of such disordered conscious states will be here only touched upon. Such a problem in classification is manifestly extremely difficult because of the extreme richness of the emotional content of consciousness, and the few rather broad categories here proposed are to be regarded purely in the light of general convenience rather than as attempts to cover the entire ground.

The disorders of consciousness for the present purposes are broadly divided into a few general groups. These are: (1) Disorders of sleep and the allied phenomena; (2) disorders of the neuroses, hysteria and epilepsy, including the phenomena of automatism, double consciousness, amnesia, etc.; (3) the intoxications; and (4) the insanities. Such a classification is manifestly incomplete and imperfect. Thus many of the phenomena of groups (1) and (2) are interchangeable. It is moreover popular at the present time to attribute most of the psychical ills to various toxæmias, either autogenous or heterogenous, and it is certain that no hard-and-fast line can be drawn clinically between certain maniacal states due to intoxication and those of primary etiology. In the present unsettled conditions of neural pathology, to say nothing of psychological classification, the question of categories may be an academic one after all.

1. Disorders of Sleep and Allied Phenomena: Dreams, Somnambulism, Trance, Lethargy, Catalepsy, Hypnotism, etc.—Under this category there are included a large number of closely allied phenomena, the most striking feature of which is what it is at present popular to call a dissociation of consciousness. In most of these phenomena the ordinary waking conscious state, with its refinements of judgment, inhibition, etc., is in temporary abeyance, naturally or artificially induced, while the more primitive states of consciousness, the ordinary motor functions, are active.

Somnambulism.—The simplest type of such is found in some somnambulistic states. In these the individual may perform, while still asleep, many of the simpler acts of the waking state, and indeed even many extremely complex acts are carried to completion. The patient awakes without any knowledge whatever of the acts performed, and often such actions have been harmful to self and society.

The clinical phenomena are not constant. The eyes are frequently closed or semiclosed, or even wide open and staring. The pupils are apt to be sluggish in their reactions, but may be normal in diameter, dilated or contracted. The data collected by Gould and Pyle* may be referred to by those who would learn more of the complicated motor acts that many notable cases have been known to perform. Suicide and homicide have been committed by persons in the somnambulistic state.

The most important etiological factor seems to be heredity. This is usually associated with a highly neurotic or emotional temperament.

Nightmare.—These represent some of the simplest forms of the pathological condition. In many instances, where such are extremely distressing, they have been known to precede grave cerebral disturbance. Cerebral congestion, hemorrhage, paresis are often associated with markedly disagreeable nightmares. As they influence

* "Anomalies and Curiosities of Medicine."

conduct but little, they are to be regarded as disordered states only in certain severe cases.

Lethargy, Catalepsy, Trance.—These are terms used to describe abnormal subconscious states which are as yet imperfectly classified, partly on account of the fugitive character of the alterations and partly because of the complications of the picture with other symptoms of the hysterical and epileptic conditions. The phenomenon of hypnotic sleep is best put in this category.

In catalepsy the prevailing phenomenon consists of the wax-like rigidity which the limbs can be made to assume, at times unconsciously; again, especially in the hypnotic condition, by the suggestion of the operator. In trance conditions there may be manifest a great variation of phases, most of which are accompaniments of the hysterical state.

Hypnotic States.—Hypnotic subconscious states are too involved and complex to be more than touched upon. Medical and psychological literature is full of interesting instances. Many false phenomena are undoubtedly collected and made to pass as true hypnotic phenomena; but, notwithstanding such, there seems to exist a certain type of consciousness which may be placed in such a condition as to be peculiarly capable of manifesting the conditions of dissociation, so that two different states of mental activity may be made to appear, on suggestion, following proper methods of induction. Such mental states may be totally different and the patient may exhibit many grades of amnesia with reference to the other state. Space does not permit a fuller discussion of this peculiarly induced condition, which is often reproduced in certain pathological conditions, notably in hysteria and epilepsy (see *Hypnotism*).

2. The Disordered Conscious States of Hysteria and Epilepsy.—These two neuroses, so closely allied at some points, are often associated with such marked modifications of consciousness, which present so many points in common, that they are discussed as part of the hysterical or epileptic phenomena. These have been termed by various names, but more particularly are classed as pervasions of consciousness, amnesic states, automatism, double consciousness, etc. There are observers who claim that all such states, when noted in nature and not artificially produced by the influences which bring about the hypnotic state, are due to the hysterical or epileptic influence. This is warmly disputed, but the study is too much in its infancy to admit of positive dicta, and we prefer here to class these conditions as epi-phenomena of these neuroses.

The celebrated case of Dr. Jekyll and Mr. Hyde illustrates the central type of the phenomenon. The personality may suffer but a very short and transitory change, or it may undergo serious modification, as it undoubtedly does in many epileptics, and for a considerable length of time. Craig Colony for epileptics is filled with patients who show double personalities, covering a space of weeks or even months, during which their ordinary personality has been considerably modified. There are cases recorded in literature which seem to be bona fide where such an alteration has persisted for years.

Automatism.—Some of the minor grades of automatism are well illustrated in epilepsy. The patient may or may not suffer from a pronounced epileptic attack, but following one he may be noted to go about, sometimes in a dazed condition; then again, he may even resume playing a game of baseball profoundly oblivious of what he is doing, and yet be able to catch and toss the ball as though in his normal state. Altered emotional tone is especially common in the hysterical or epileptic automatic. Crying, weeping, intense anger, culminating in the homicidal impulse, may be the prevailing note of the altered personal state.

Amnesic Conditions.—Cases too numerous to mention have been reported in literature of the gradual or sudden loss of memory of a former state of existence. The person lives in new surroundings, under new impulses, and there occurs just as sudden a reversion to the memory of the former condition and a total loss of memory