All scientific theory is eclectic for a scientist takes the hypotheses of his predecessors and examines them by logical tests and checks them by observation. By these means he selects what he finds to be valid in each hypothesis and works them into a co-ordinated system. He adds his own observations and inferences and these in turn serve as hypotheses till they are verified by independent workers and are recognised as true by the consensus of specialised opinion. I have worked for several years on the subject of magic both by reading and by repeated observation of magical operations among savage peoples in the Anglo-Egyptian Sudan and have therefore had occasion to acquaint myself with most theories of magic and to test them by direct observation.

Writers about magic may be roughly divided into three schools of interpretation, the Intellectualist, the Emotionalist, and the Sociological, though we might include a fourth, the Historical. The constructions of these schools overlap and some writers find themselves in all three but a division of this kind enables me more easily to define the main viewpoints from which the subject of magic has been treated and to select the problems which we have to investigate. I propose in this paper to make a digest, analysis, and criticism, of what we may call the Intellectualist school of interpretation in England, chiefly represented by Tylor and Frazer.

Tylor and Frazer approached the problems of magic from an intellectualist standpoint. They considered that primitive man had reached his conclusions about the efficacy of magic from rational observation and deduction in much the same way as men of science reach their conclusions about natural laws. Underlying all magical ritual is a rational process of thought. The ritual of magic follows from its ideology. It is true that the deductions of a magician are false - had they been true they would have been scientific and not magical - but they are nevertheless based on genuine observation. For classification of phenomena by the similarities which exist between them is the procedure of science as well as of magic and is the first essential process of human knowledge. Where the magician goes wrong is in inferring that because two things are alike in one or more respects they have a mystical link between them whereas in fact the link is not a real link but an ideal connexion in the mind of the magician. A Greek peasant is quite right in classing jaundice and gold together in virtue of their common attribute of colour but he is in error in deducing from this common attribute that they can react on each other. The African peasant is quite right in seeing a connexion between rain falling and water which he has thrown up into the air falling but he is wrong in considering that on account of the similarity between the two processes there is a causal relationship between them. A causal relationship exists in his mind but not in nature. It is a subjective and not an objective connexion. Hence the savage mistakes an ideal analogy for a real connexion.

* Extract from the Bulletin of the Faculty of Arts, (Cairo), 1933, Vol.1., Part II.

1. F. W. Schmidt treats the subject under three headings in his Origine et Evolution de la Religion, translated from the German. Paris. 1931.
Tyler surveyed the facts of magic as a logician. Magic was to him "One of the most pernicious delusions that ever vexed mankind" but at the same time he saw that it contained a logical scheme of thought which can be well understood by civilised men of the twentieth century.

"The principal key to the understanding of Occult Science is to consider it as based on the association of ideas, a faculty which lies at the very foundation of human reason, but in no small degree of human unreason also. Men, as yet in a low intellectual condition, having come to associate in thought those things which he found by experience to be connected in fact, proceeded erroneously to invert this action, and to conclude that association in thought must involve similar connexion in reality. He thus attempted to discover, to foretell, and to cause events by means of processes which we can now see to have only an ideal significance." 2

Nevertheless Tylor pointed out that this ideal or subjective association of phenomena is not haphazard but rests on a rational appreciation of the similarities which exist between phenomena, an appreciation which takes the form of analogy or symbolism. Hence we can generally see at once wherein the analogy of magical symbolism lies, in what consists the symbolic principle of magic, as Tylor calls it.

"Panciful as these notions are, it should be borne in mind that they come fairly under definite mental law, depending as they do on a principle of ideal association, of which we can quite understand the mental action, though we deny its practical results." 3

However, not all symbolism is of this direct and obvious kind but some of it embodies associations which have been arbitrarily invented to fill in gaps in the magical system and never has any rational sense or of which the rational sense had been forgotten.

Tylor thus implicitly, for he does not explicitly discuss the question, recognises that the difference between magic and science is the difference between a false association of phenomena in which the link is of a subjective, symbolic, and ideal, nature, on the one hand, and an association of phenomena in which the link is of an objective, and real nature, on the other hand. In the same way he does not attempt to make a clear theoretical distinction between magic and Religion but is content to claim "as a minimum definition of Religion, the belief in Spiritual Beings" 4 and to leave the rest of the supernatural to magic.

It is evident from Tylor's treatment of the subject that he realised that the province of magic and religion, thus loosely defined, must continually overlap since there is often a notion of animism in the materia medica of magical rites. That he believed the terms were best employed without too great rigidity is shown by his statement that whilst dreams are more properly treated under the heading of religion since they are attributed

3. Id. p. 119.
4. Id. p. 424.
to spiritual intercourse nevertheless the art of oneirocmy, the art of
taking omens from dreams by analogical interpretation (e.g., the dreams of
Joseph), may be treated under the heading of magic.

Tylor's theory of animism, the substratum of all religious experience,
is typical of his intellectualist bias in examining the beliefs of primitive
men and may be compared with his discussion of magic when it will be clearer
from an analysis of his treatment of religion how he came to reach his
conclusions about magic, than if we read his views on magic alone. Tylor
was of the opinion that mankind came to believe in the human soul and, by
extension, in the souls of animals and plants and even of objects which
we call inanimate objects, through an effort to account rationally for such
phenomena as life and death, waking and sleeping, disease and trance,
dreams and visions.¹

His treatment of religious facts throughout thus follows the same
method of rationalistic interpretation as his treatment of magical facts.
This is well illustrated when he asks how it is that mankind has for so long
placed implicit faith in "the whole monstrous farrago" of symbolic magic
in which there is no truth whatever. Explaining the logic of magic,
as Tylor does, by interpreting it as a rational, if mistaken,
inference from natural phenomena, he feels the need to account in a similar
manner for the fact that primitive man did not perceive its falsehood. He
explains what appears to us as unaccountable density of intelligence on
the grounds that magic is not obviously futile since (1) the arts of magic
are associated often with commonsense behaviour; the cunning and knowledge
of the magician achieving what his ritual fails to achieve; (2) it is
difficult to perceive the futility of the magic art when what it sets out
to achieve so often follows its practice; nature performing what the magic
appears to perform; (3) when a magic rite fails, its failure is not attributed
to the futility of the rite, but to neglect of one of the prescriptions or
prohibitions which accompany its performance; (4) there are always hostile
forces at work which may counteract a magic rite, rival practitioners in
particular furnishing a useful excuse for failure; (5) the plasticity of
such notions as success and failure allow that what seems to some people
a complete failure may seem to others a comparative or partial success.
People everywhere find it hard to appreciate evidence and one success
outweighs in their minds and memories many failures; (6) the very weight
of authority behind magical practice forces men to accept what adds support
and confirmation and to reject instances which contradict its claims.

The two positive contributions made by Tylor to a study of magic
were the unravelling of its symbolic principle or its ideational logic
and his analysis of the causes which have prevented its exposure as a
fraud. Both have the merit that they are capable of psychological and
sociological investigation and can therefore be scientifically rejected or
accepted. Tylor's account also, in my opinion, contained a negative
virtue, a virtue all the more to be commended when his bias towards evolu-
tionary interpretation of culture is taken into account. Whilst Tylor's
the development of magical and animistic ideas both in the known chronology
of history and in the logical stratification of cultural types he made no
attempt to build out of his facts a hierarchy of historic stages of magic,
religion, and science, an error into which Frazer was to fall. Tylor
contented himself with demonstrating beyond doubt that whether we consider
those cultures whose history we know, and compare the earlier forms of
their cultures with the later forms of their development, or if we compare

¹. Id. p. 428.
the more primitive societies in the world today with the more advanced societies, we shall find the same broad statement to hold true, that everywhere there is magic and religion and science but that in the later stages of development or in the more advanced societies magical and animistic ideas play a lesser part in the thought and behaviour of men than in the earlier stages of development or in the more primitive societies. In modern civilisation they tend to become idealised or to survive as superstition, though a tinge of pessimism suffuses Tylor's thought when he considers the human psyche and its limitations and makes him conscious that nothing survives which does not spring from deep-lying mental causes whose operation continues always and may at any moment change what appears to be a languishing survival into a flourishing revival. We may perhaps, therefore, present Tylor's scheme of development in a simple diagrammatic form, as we may imagine he would have presented it himself.

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Frazer added little that was new to Tylor's brief survey of magic but he expanded the salient points of the survey and made a deeper analysis of their meaning. Arguments implicit in Tylor's account are developed as explicit theses, illustrated by a lavish catalogue of examples, by Frazer. But if Frazer has built substantially on the foundations laid by Tylor, he has also fallen into some pits which his cautious predecessor avoided. We will discuss his contribution under five headings: (1) his analysis of the logic of magic, (2) his theory of the relationship of magic to science, (3) his theory of the relationship of magic to religion, (4) his chronological scheme of development of magic to religion and from religion to science, (5) his observations on the part played by magic in political development.

(1) Whilst Tylor showed that there is a false association of ideas underlying the ideology of magic he did not then proceed to classify into types the analogies upon which it is based. This task Frazer has accomplished in his Golden Bough which rightly ranks among the great achievements of English literature and scholarship. He writes:

"If we analyse the principles of thought upon which magic is based, they will probably be found to resolve themselves into two: first that like produces like, or that an effect resembles its cause; and, second, that things which have once been in contact with each other continue to act on each other at a distance after the physical contact has been severed. The former principle may be called the Law of Similarity, the latter the Law of Contact or Contagion. From the first of these principles, namely the Law of Similarity, the magician infers that he can produce any effect he desires merely by imitating it: from the second he infers that whatever
he does to a material object will affect equally the person with whom the object was once in contact, whether it formed part of his body or not. Charms based on the Law of Similarity may be called Homoeopathic or Imitative Magic. Charms based on the Law of Contact or Contagion may be called Contagious Magic."^1

And again he says:

"If my analysis of the magician's logic is correct its two great principles turn out to be merely two different misapplications of the association of ideas. Homoeopathic Magic is founded on the association of ideas by similarity. Contagious Magic is founded on the association of ideas by contiguity. Homoeopathic magic makes the mistake of assuming that things which resemble each other are the same; contagious magic commits the mistake of assuming that things which have once been in contact with each other are always in contact."^2

In other words we may say that to a European observer all acts of magic rest upon one or other, or both, of two simple modes of classifying phenomena, by the similarities which exist between them and by their contiguous position in relation to each other. This is a scientific, objective, mode of classification but the ideas of objects which are similar or contiguous are linked in the savage mind by a notion that there is real connexion between them. Hence it is thought they have a sympathetic relationship between them and can act on each other. So Frazer classes the two types of association under a single heading:^3

**SYMPATHETIC MAGIC**

*Law of Sympathy*

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<th>Contagious Magic</th>
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Into this scheme of magic Frazer has incorporated in the second edition of the *Golden Bough* the notion of taboo as Negative Magic and he considers that the basis of taboo is just those two Laws of Similarity and Contact which are the invariable laws of magical thought.

The inclusion of taboos in Frazer's general theory of magic gave it a more rounded form and a fuller comprehension of the cluster of facts which are included in the performance of a magical rite. In his own words:^4

"For it is to be observed that the system of sympathetic magic is not merely composed of positive precepts: it comprises a very large number of negative precepts, that is, prohibitions. It tells you not merely what

2. Id. pp. 53-54.
4. Id. pp. 111-112.
to do, but also what to leave undone. The positive precepts are charms: the negative precepts are taboos. In fact the whole doctrine of taboo, or at all events a large part of it, would seem to be only a special application of sympathetic magic, with its two great laws of similarity and contact. Though these laws are certainly not formulated in so many words nor even conceived in the abstract by the savage, they are nevertheless implicitly believed by him to regulate the course of nature quite independently of human will. He thinks that when he acts in a certain way, certain consequences will inevitably follow by virtue of one or other of these laws; and if the consequences of a particular act appear to him likely to prove disagreeable or dangerous, he is naturally careful not to act in that way lest he should incur them. In other words, he abstains from doing that which, in accordance with his mistaken notions of cause and effect, he falsely believes would injure him; in short, he subjects himself to a taboo. Thus taboo is so far a negative application of practical magic. Positive magic or sorcery say 'Do this in order that so and so may happen.' Negative magic or taboo say 'Do not do this, lest so and so should happen.' The aim of positive magic or sorcery is to produce a desired event; the aim of negative magic or taboo is to avoid an undesirable one. But both consequences, the desirable and the undesirable, are supposed to be brought about in accordance with the laws of similarity and contact.

Thus with the inclusion of taboo in his analysis of magic Frazer presents his conception of the theory and practice of magic in the following diagram:

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MAGIC

Theoretical
(magic as pseudo-science)

Practical
(magic as a pseudo-art)

Positive magic
or
Sorcery

Negative magic
or
Taboo
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When Frazer asks himself why the beliefs and experiments of magic are not at once detected as fraud by the sensible savage, he answers by giving one of the several reasons enumerated by Tylor to account for such supineness, namely that the end aimed at in a magical rite is actually attained sooner or later by processes of nature. Hence the very failure by primitive man to detect the fallacies of magic is a tribute to his rational and enquiring mind which is able to observe that magic rites and such happenings as rain falling, wind blowing, sun rising, man dying, have a temporal sequence which may fairly be considered a causal sequence. Hence the primitive philosopher may point to the evidence of his senses as proving to any intelligent man that magic is a sensible belief. Moreover it is part of Frazer's argument that the more intelligent minds did at least perceive the futility of magic.

(2) The analogy between the basic ideas of magic and those of science which we find merely sketched by Tylor is presented to us as a finished picture by Frazer. To him magic represents a Weltanschauung in every way comparable to the Weltanschauung of science. Both view nature as "a series
of events occurring in an invariable order without the intervention of personal agency."¹ In a well known passage Fraser has stated his theory of the intellectual kinship of magic to science.²

"For the same principles which the magician applies in the practice of his art are implicitly believed by him to regulate the operations of inanimate nature; in other words, he tacitly assumes that the Laws of Similarity and Contact are of universal application and are not limited to human actions. In short, magic is a spurious system of natural law as well as a fallacious guide of conduct; it is a false science as well as an abortive art. Regarded as a system of natural law, that is, as statement of the rules which determine the sequence of events throughout the world, it may be called Theoretical Magic; regarded as a set of precepts which human beings observe in order to compass their ends, it may be called Practical Magic. At the same time it is to be born in mind that the primitive magician knows magic only on its practical side; he never analyses the mental processes on which his practice is based, never reflects on the abstract principle involved in his actions. With him, as with the vast majority of men, logic is implicit, not explicit; he reasons just as he digests his food in complete ignorance of the intellectual and physiological processes which are essential to the one operation and to the other. In short, to him magic is always an art, never a science; the very idea of science is lacking in his undeveloped mind. It is for the philosophic student to trace the train of thought which underlies the magician's practice; to draw out the few simple threads of which the tangled skein is composed; to disengage the abstract principles from their concrete applications; in short, to discern the spurious science behind the bastard art."

And again:

"Wherever sympathetic magic occurs in its pure unadulterated form, it assumes that in nature one event follows another necessarily and invariably without the intervention of any spiritual or personal agency. Thus its fundamental conception is identical with that of modern science; underlying the whole system is a faith, implicit but real and firm, in the order and uniformity of nature. The magician does not doubt that the same causes will always produce the same effects, that the performance of the proper ceremony, accompanied by the appropriate spell, will inevitably be attended by the desired results, unless, indeed, his incantations should chance to be thwarted and foiled by the more potent charms of another sorcerer. He supplicates no higher power: he sues the favour of no fickle and wayward being: he abases himself before no awful deity."³

Magic assumes "a sequence of events determined by law".⁴ Science differs from magic not in its assumptions and approach to reality but in the validity of its concepts and the efficacy of its art.

². Id., pp. 52-53.
⁴. Id., p. 221.
(3) Frazer's distinction between magic and science by the test of objective validity clearly will not hold as a means of differentiating magic from religion, between which Frazer saw "a fundamental distinction and even opposition of principle."¹ Magic is to him something different in kind to religion and not merely the earliest phase in the development of its thought. He differentiates between them in much the same manner as Tylor. Tylor considered belief in spiritual beings to constitute religion and recognised that belief invariably leads to cult. Frazer stresses the cult rather more than Tylor; otherwise their theories are identical. Religion according to Frazer is:

"A propitiation or conciliation of powers superior to man which are believed to direct and control the course of nature and of human life. Thus defined, religion consists of two elements, a theoretical and a practical, namely, a belief in powers higher than man and an attempt to propitiate or please them."²

Hence religion assumes that nature is under the control of spirits and that these spirits can alter its course as they please. Frazer contrasts this notion of a plastic and variable nature with the notion of nature subject to immutable laws as postulated by magic and science.

"The distinction between the two conflicting views of the universe turns on their answer to the crucial question. Are the forces which govern the world conscious and personal, or unconscious and impersonal? Religion, as a conciliation of the superhuman powers, assumes the former of the alternative. For all conciliation implies that the being conciliated is a conscious or personal agent, that his conduct is in some measure uncertain, and that he can be prevailed upon to vary it in the desired direction by a judicious appeal to his interests, his appetites, or his emotions. Conciliation is never employed towards things which are regarded as inanimate, nor towards persons whose behaviour in the particular circumstances is known to be determed with absolute certainty. Thus in so far as religion assumes the world to be directed by conscious agents who may be turned from their purpose by persuasion, it stands in fundamental antagonism to magic as well as to science, both of which take for granted that the course of nature is determined, not by the passions or caprice of personal beings, but by the operation of immutable laws acting mechanically. In magic, indeed, the assumption is only implicit, but in science it is explicit."³

Frazer recognises the problem of reconciling this definition with recorded knowledge of barbaric cultures in which the gods are influenced by magic or are even themselves magicians. Are not magic and religion, as Frazer defines them, in such cases an insoluble compound of ritual and belief? From his intellectualist position Frazer says that they are not insoluble for in such cases it is easy to see whether mankind treats the gods in the same way as he treats inanimate objects, as subject to his spells which they are bound to obey through the same immutable laws as

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1. Id., Preface, xx.
3. Id. p. 223.
regulate all natural and magical causation, or whether mankind admits their absolute control over nature and tries to conciliate or propitiate them in consequence of his belief in their powers.

(4) But it is not merely in their philosophies and in their modes of attempting to control nature that magic and religion are different. They belong to different strata in the history of human development and where we find that they have amalgamated we may regard this overlapping of one stage on to the other as being in no sense primitive and we may conclude that "there was a time when man trusted to magic alone for the satisfaction of such wants as transcended his immediate animal cravings."\(^1\) For this startling conclusion, borrowed from Jevons, Frazer gives us three reasons. Firstly he claims that magic is logically more primitive than religion, and may therefore be fairly considered to belong to an earlier stage in the development of thought, since the simplest recognition of similarity or contiguity of ideas is not so complex as the conception of personal agents, even animals being supposed to associate the ideas of things which are like each other or which have been found together in their experience, while no one attributes to the brutes a belief in spiritual agents. To this purely deductive argument Frazer adds a second and inductive observation. He claims that among the aborigines of Australia, "the rudest savages as to whom we possess accurate information, magic is universally practised, whereas religion in the sense of a propitiation or conciliation of the highest powers seems to be nearly unknown. Roughly speaking, all men in Australia are magicians, but not one is a priest; everybody fancies he can influence his fellows or the course of nature by sympathetic magic, but nobody dreams of propitiating gods by prayer and sacrifice."\(^2\)

It is not, therefore, unreasonable, says Frazer, to deduce from the fact that the most backward culture in the world is prolific in magic and barren in religion that all other races have advanced to their higher cultural position through the same historic stages of development from magic to religion and he asks whether the recorded facts from Australia do not justify the query that "Just as on the material side of human culture there has been everywhere an Age of Stone, so on the intellectual side there has everywhere been an Age of Magic?"\(^3\)

His third argument in favour of the priority of magic asserts that since we find everywhere an enormous variation in the forms of religious belief while the essence of magical belief is always the same we may assume that just as magic represents a substratum of belief in civilised communities whose upper social elements are busied with some one or other of the multitude of religious creeds so it represents as well an earlier, more primitive, phase of thought in the history of the human race in which all men held the same magical faith.

"This universal faith, this truly Catholic creed, is a belief in the efficacy of magic. While religious systems differ not only in different countries, but in the same country in different ages, the system

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2. Id., p. 234
of sympathetic magic remains everywhere and at all times substantially alike in its principles and practice. Among the ignorant and superstitious classes of modern Europe it is very much what it was thousands of years ago in Egypt and India, and what is now among the lowest savages surviving in the remotest corners of the world. If the test of truth lay in a show of hands or a counting of heads, the system of magic might appeal, with far more reason than the Catholic Church, to the proud motto, "Quod semper, quod ubique, quod ab omnibus," as the sure and certain credential of its own infallibility.  

Frazer then proceeds to enquire about the process of mental change from an exclusive belief in magic to a belief in religion. He thinks that he can do no more than "hazard a more or less plausible conjecture" about this change in orientation of belief. This conjecture is that the shrewder intelligences began to see that magic did not really accomplish what it set out to accomplish and fell back on the belief that there were beings, like themselves, who directed the course of nature and who must be placated and cajoled into granting man what he hitherto believed himself able to bring about through magic on his own initiative.

"The shrewder intelligences must in time have come to perceive that magical ceremonies and incantations did not really effect the results which they were designed to produce, and which the majority of their simpler fellows still believed that they did actually produce. This great discovery of the in-efficacy of magic must have wrought a radical though probably slow revolution in the minds of those who had the sagacity to make it. The discovery amounted to this, that men for the first time recognised their inability to manipulate at pleasure certain natural forces which hitherto they had believed to be completely within their control. It was a confession of human ignorance and weakness. Man saw that he had taken for causes what were no causes, and that all his efforts to work by means of these imaginary causes had been vain. His painful toil had been wasted, his curious ingenuity had been squandered to no purpose. He had been pulling at strings to which nothing was attached; he had been marching, as he thought, straight to the goal, while in reality he had only been treading in a narrow circle. Not that the effects which he had striven so hard to produce did not continue to manifest themselves. They were still produced, but not by him. The rain still fell on the thirsty ground; the sun still pursued his daily, and the moon her nightly journey across the sky; the silent procession of the seasons still moved in light and shadow, in cloud and sunshine across the earth: men were still born to labour and sorrow, and still, after a brief sojourn here, were gathered to their fathers in the long home hereafter. All things indeed went on as before, yet all seemed different to him from whose eyes the old scales had fallen. For he could no longer cherish the pleasing illusion that it was he who guided the earth and the heaven in their courses, and that they would cease to perform their great revolutions were he to take his feeble hand from the wheel. In the death of his enemies and his friends he no longer saw a proof of the resistless potency of his own or of hostile enchantments; he now knew that friends and foes alike had succumbed to a force stronger than any that he could wield, and in obedience to a destiny which he was powerless to control."  

1. Id., pp. 235-6.  

In the end magic is suppressed by religion and eventually comes under the ban of the priesthood as a black art. So at a late period in the development of human thought we find a distinction drawn between religion and superstition, magic being classed as a superstition.

"But when, still later, the conception of the elemental forces as personal agents is giving way to the recognition of natural law; then magic, based as it implicitly is on the idea of a necessary and invariable sequence of cause and effect, independent of personal will, reappears from the obscurity and discredit into which it had fallen, and by investigating the causal sequences in nature, directly prepares the way for science. Alchemy leads up to chemistry."1

(5) Finally Frazer rounds off his account of magic by showing the part it has played in the history of political development. Magic is practised in primitive societies not only by private individuals for their own private purposes but also by public functionaries on behalf of the whole community and these men are able to gain great wealth and repute and may acquire rank and authority by their ritual functions. Moreover the profession of public magician selects the ablest, most ambitious, and most unscrupulous, men in society since it sets a premium on knavish imposture. That 'public magic' is often a road to political influence and social prestige and private affluence Frazer shows by many actual examples from Australia, New Guinea, Melanesia, and Africa, and he justly concludes that:

"in point of fact magicians appear to have often developed into chiefs and kings. Not that magic is the only or perhaps even the main road by which men have travelled to a throne."2

In this progress from magician to king the fear inspired by ritual power is backed by the wealth the magician is able to amass in the exercise of his profession. The profession of magician appears to be the earliest professional class in human society and the first sign of social differentiation. Fraser then brings his thesis of political development into connexion with his theory of the chronological sequence of magic to religion. For he believes that the evolution of the magician-chief goes hand in hand with the breakdown of magic and the birth of religion. Hence the magician as he gains political supremacy tends at the same time to emerge as the priest.

"Hence the king starting as a magician, tends gradually to exchange the practice of magic for the priestly functions of prayer and sacrifice. And while the distinction between the human and the divine is still imperfectly drawn, it is often imagined that men may themselves attain to godhead not merely after their death, but in their life time, through the temporary or permanent possession of their whole nature by a great and powerful spirit."3

While Tylor traced the changes which have taken place in the form and functions of magic, religion, and science, through the ages and kept his conception of their growth and decay within the limits set by knowledge

2. Id., p. 332.
derived from history and a comparative study of cultures, Frazer traced the progress of human thought through stratified grades of unilinear development, each grade representing a step on which mankind has everywhere rested awhile on his path of upward progress. We may therefore present Frazer's scheme diagrammatically to compare it with the diagrammatic presentation which we have drawn to demonstrate Tylor's viewpoint.

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Having summarised the theories of Tylor and Frazer I shall now try to sort them out and class them as hypotheses capable of inductive proof and in accordance with present knowledge, hypotheses which cannot be proved inductively but which have heuristic value, and hypotheses which are useless either because they are contrary to ascertained facts or being beyond proof or disproof by inductive enquiry lack also even heuristic value. Into the last class come Frazer's theories about the affective and ideational similarity between magic and science, about the development of thought through stages of magic, religion, and science, and the greater part of his analysis of magical symbolism.

Tylor and Frazer were both dominated by the evolutionary ideas of their time and tended to see different types of behaviour as representatives of historic stages. Frazer especially arranged his types in a temporal sequence which was hardly justified by his methods of investigation. He could have shown the historical development of magic and science, as Thorndike, for instance, has done, in a definite culture of which we have historical knowledge, or he could have carefully defined cultural types on a consensus of cultural traits and demonstrated the correlation between these types and modes of thought. He used neither of these methods with the result that his theory of evolutionary progress of mankind through stages of magic, religion, and science, has earned Harett's title of a platonic myth and it is possible that Frazer would have been content with this description and regarded his scheme as a convenient framework on which to weave his vast assortment of facts. There is nothing in Frazer's arguments which proves a chronological priority for magic over religion and empirical knowledge. Frazer's argument that the Australians, who have the simplest material culture we know, show much magical and little religious behaviour falls to the ground on the impact of critical analysis. It has been pointed out that other peoples who may be considered as low in the cultural scale as the Australians, have little magic; that the Australians cannot be taken as a cultural unit since they differ widely among themselves; and that moreover many Australian tribes have pronounced animistic beliefs and cults. Frazer's plea that animals make mental associations between phenomena and that this is also the essence of magical beliefs is a very remote and superficial analogy. Magic is a system of ritual techniques and not simple mental associations between phenomena. Moreover this evolutionary theory suffers from the same drawback as others of its kind, namely that
it is quite beyond proof or disproof. If anyone had been present when men performed their first rites he might have recorded their nature and we could then have classified them as religion or magic according to our several formulae. Frazer's theory of how mankind changed from a magical to a religious view of the universe is hardly presented as a serious thesis and is not treated as one here.

Nevertheless the priority in time of magic over religion, though it cannot be inductively proved might have been deductively concluded if Frazer had made an exhaustive survey of the facts by the method of correlation such as was employed by Tylor, Steinmetz, and Hobhouse, Ginsberg and Wheeler. It might be possible to show that magic is specially prominent in those societies with a low technological equipment and undeveloped political organisation and that when we examine types of society with more efficient technology and more complex social organisation we find a greater absence of magical rites and a greater number of religious ones and that finally we reach societies of greatest technical efficiency and most complex social life in which magic is almost absent and religion less prominent than in the second type while behaviour and thought are becoming more and more exclusively empirical.

An analysis of the kind suggested here, particularly of the correlation of magical and empirical thought with forms of social behaviour would be well worth the labour that it would cost. There can be no doubt that magic as a dominant form of social behaviour is restricted to savage and barbarous peoples. This does not mean that all uncivilised societies are magic-ridden nor does it mean that magic is totally unknown in civilised communities. What it means is that if we trace the changes which have taken place in those civilisations for which we possess written history we shall find that there is a slow and cumulative increase in empirical knowledge and a slowly diminishing body of magical knowledge and that also if we compare societies without the art of writing and without advanced technology with those that possess the art of writing and are technologically advanced we shall find that on the whole the technique of magic is less prominent a mode of behaviour in the latter than in the former. We may say therefore that magic is a technique characteristic of simple societies and tends to disappear with the advancement of civilisation, a point of view advanced by Tylor and strikingly developed by Levy-Bruhl in the provoking contrast he makes between Primitive Mentality and Civilised Mentality.

If we mean by science an elaborate system of knowledge, the result of experimentation in the hands of specialists, such as we think of when we speak about science today, there is little difficulty in assigning to it an historical stage in the development of human thought. But if we mean any correct knowledge of natural processes and acquaintance with technological methods then it is clearly improper to place science at one end and magic at the other end of a series of developmental stages, as Fraser has done, since it is evident that no peoples could possibly have lived in a state of culture sufficient to engage in ritual unless they first had sufficient technological knowledge to master their environment. You cannot have agricultural or hunting magic unless you have agriculture and

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1. A vast literature could be cited on magical rites practised by the peasantry of Europe.
hunting. Moreover, the most primitive societies of today are always found
to be equipped with a sound knowledge of nature. The difference between
scientific knowledge used in the first sense and scientific knowledge used
in the second sense is one of degree but it may be generally stated that
the first usage means that you understand that certain things do happen
invariably and that the second usage means that you understand how and
why they happen. In the first case you know that if you plant maize seeds
in a certain type of ground at a certain time of the year maize will grow.
In the second case you know why the seeds grow at all, why they grow in
one soil and not in another, and why they grow at one time of the year and
not at another. But even here there are many degrees of knowledge and the
empirical shades into the scientific.

It is never clear what Frazer means by science for he uses the word
now in one sense now in another but on the whole he seems to mean the
conscious striving after knowledge, the systems of criticism and controls,
and the use of logic and experiment, which the word implies in ordinary
usage today. Used in this sense the analogy which he draws between science
and magic is unintelligible. He says that science and magic both visualize
a uniform nature subject to invariable laws and that the scientist and the
magician have a like psychological approach to nature. It is clear from
accounts of savages that they have no conception of nature as a system
organized by laws and in any case the utilisation of magic to influence the
course of nature is surely in direct opposition to the scientist's con-
ception of the universe. You cannot both believe in natural law and that
you can delay the sun by placing a stone in the fork of a tree. If there
are any regularities and uniformities of thought they are in the workings
of magic and not of nature. But the whole discussion seems rather point-
less for you have to be a scientist to note regularities and uniformities
and organise them into a conscious theory of the universe. Indeed Frazer
himself speaks of the magical view of the universe subject to law and
expressing uniformity as implicit and not explicit and it is difficult to
see any sense in theoretical magic which is not explicit. All it can
mean is that if we used magic in the same way as the savage uses it we
would have a theory that the world was sufficiently regular in its working
for us to rely on magic to control it since it may be expected always to
react in the same manner to the performance of the same spell or rite.
We should generalise our experiences in this manner because we are scienti-
Fically orientated but since we are scientifically orientated we should at
once perceive the fallacy of magic. With regard to the supposition that
the man of science and the man of magic both approach their task with
quiet confidence and masterful assurance and that their psychology contrasts
with the nervous apprehension and humility of the man of religion it can
only be said that Frazer produces no facts in support of his contention.

The apparent futility of Frazer's analogy between science and magic
is due to the fact that he sees both as modes of thinking and not as learnt
modes of technical behaviour with concomitant speech forms. If he had
compared a magical rite in its entirety with a scientific performance in
its entirety instead of comparing what he supposes to go on in the brain
of a magician with what he supposes to go on in the brain of a scientist
he would have seen the essential difference between science and magic.
This difference is most strikingly shown in the experimental standpoint
on the two modes of behaviour. Science experiments and is open to ex-
perience and ready to make adjustments in its notions of reality whereas
magic is relatively non-experimental and the magician is impervious to
experience, as science understands the term, since he employs no methods
of testing or control. If moreover Frazer had not brought the scientific
specialist on to the scene in order to compare him with the magical specialist but had compared magical knowledge and behaviour with scientific knowledge and behaviour, that is to say had compared those forms of knowledge which accord with objective reality with those which distort objective reality and those forms of behaviour which achieve their purpose with those forms of behaviour which are only believed to achieve their purpose, and had compared them as types of thought and behaviour in the same cultural conditions instead of in totally different cultural conditions, his investigations would have been of greater value. He might have compared empirical behaviour with magical behaviour among the savages of Australia and observed their interaction, their social inter-relations, and their concomitant psychological states, with some chance of reaching valid conclusions about the differences which exist between them. Lévis-Bruhl who took an exactly opposite point of view, holding that magical thought and scientific thought stand to each other as black to white, made the same mistake of comparing our science with savage magic instead of comparing savage empiricism with savage magic.

Besides suffering from the influence of current psychological and evolutionary theories Frazer's exposition also suffered from current methodological deficiencies. He used what is known as the comparative method and this does not mean the conviction that any scientific generalisation must rest on a comparative study of similar phenomena, a conviction common to all men of science and an essential part of their methodology, but a particular way of comparing phenomena which was extensively used by all anthropological writers at the end of the last century. It consisted in selecting from a vast mass of data, uneven and often poor in quality, whatever phenomena appeared to belong to the same type. This proved to be a very dangerous proceeding because the selection of facts was made on the grounds of similarity between phenomena in virtue of a single common quality. The qualities which were different in each instance were neglected. This is a perfectly sound method of scientific analysis so long as conclusions are restricted to the particular quality abstracted and it is not then assumed that because phenomena are alike in respect to this single quality that they are alike in other respects which have not been subject to critical comparative analysis. In a study of social facts the procedure is all the more hazardous for these are defined by their inter-relations and if they are abstracted from their social milieu it is essential to realise that they are only comparable in a limited number of respects and not as complete social facts. By use of the comparative method Frazer was successful in demonstrating that the ideology of magic rests upon fundamental laws of thought for it is possible to isolate the ideological associations of a vast number of magical rites and to compare them simply as examples of evident notions which are the raw material of all human thought. But when Frazer then proceeds to find a similarity between magic and science merely because the scientist and the magician use the processes of all thought building, sensation, abstraction, and comparison, the procedure is clearly inadmissible because it does not follow from the fact that both magic and science display in their ideologies the most elementary processes of thought that there is any real similarity between scientific and magical techniques and systems of thought. This _pars pro toto_ fallacy is again shown in Fraser's argument that because magic and science both disregard spiritual beings they are similar in virtue of this absent association. This is equivalent to saying that _x_ is not _y_ and _z_ is not _y_ and that therefore _x_ and _z_ are the same. I conclude therefore that Frazer's theories of the similarity between magic and science and of their historic stages are unsupported by either sound evidence or logic and that they have little heuristic value. Indeed they are formulated in such a manner that it is
difficult to present them in a scientific form at all and consequently they impede rather than assist us in our quest. It is useless to attempt to solve the queries which Frazer raises. We have to formulate the problems anew if we are to conduct a scientific enquiry.

Of what value is the whole Tylor-Frazer conception of magic as a mistaken association of ideas? Here we may distinguish between two propositions:

(1) in the words and actions of magic we can discern the operation of certain elementary laws of thought. The associations which link the rite and its objective are so simple that they are evident to us who are far removed from the cultures in which magic flourishes. They are found to rest on perception of position and perception of similarities.

(2) These associations are to us no more than memory images of qualities of things which have an ideal relationship in our minds but the savage mistakes these ideal relations for real relations in the world around him. We and savages both think in the same way insofar as perception and comparison of sensations are concerned but the savage then leaves us behind and goes a step further by believing that because two things are associated together in his memory image that they are objectively associated. He believes that because things are like each other they will act on each other since they are bound by an invisible link.

We can accept the first proposition without hesitation. It was clearly enunciated by Tylor and abundantly illustrated by Frazer. We can adopt the terminology of the Golden Bough and speak of Homeopathic Magic and Contagious Magic. But it is surprising that Frazer made no deeper analysis, for to tell us that magical thought rests on perception of position and similarities is not to tell us much since these are the elementary processes of all thought and it follows from the fact that magic is man-made. A more comprehensive analysis could be made by listing the particular qualities of objects which are associated in the ideology of magic. For example in the instance of the gold-jaundice association it is the quality of colour. The mental associations embodied in magic can thus be resolved into even simpler elements than Frazer's laws of similarity and contagion; they can be resolved into the simplest of conscious sensations and the notions and memory images resulting from them. It can be shown upon which abstractions magic is built up, whether of sight, hearing, odour, taste, or touch. Then a stone figures in magic which of its qualities is abstracted in the magical association, its size, its colour, its roughness, its temperature, or its weight? Magical associations can likewise be resolved into elementary notions of the dimensions of sensations, position in space, position in time, dimensions of size, and so on. He might also have shown us how in a complicated rite a single part of a process is selected to stand for the whole, as Thurnwald has done. A third, but difficult, task would be to show whether it figures in a number of cultural situations; sometimes even being given a permanence and inevitability by language. Are gold and jaundice associated together only in the magical situation of therapeutic treatment or have they an association outside this situation in the minds of Greek peasants? An example of association fixed by language is elephantiasis for when we speak of the disease we inevitably mention this animal. The Azande of the Nile-Uele Divide make the same comparison and the association is embodied in the word and is therefore not restricted to situations in which elephant's foot is used to cure elephantiasis. We have to enquire also whether the abstraction of a quality in magical associations is always a culturally indicated perception, e.g. in colour.
associations; and other lines of enquiry could be suggested.

The second proposition is most misleading and is illustrative of one of those perilous leaps backwards and forwards in the dark from observable social behaviour to individual psychological processes which distinguish anthropological gymnastics. Frazer's argument runs as follows: to the Greek peasant jaundice and gold are of the same colour and since things which are alike react on one another gold if used according to certain rules will cure jaundice. I would prefer to state the proposition as follows: gold and jaundice produce the same sensations of colour and this similarity is culturally indicated by their association in magical behaviour. It is the middle expression in Frazer's thesis to which objection is taken. In his account he frequently informs us that in savage minds like produces like and that contiguous things remain in contact when their contiguity ceases to be objective and remains, as we would say, only a memory image. We are told that "the magician infers that he can produce any effect he desires merely by imitating it" and that "homoepathic magic makes the mistake of assuming that things which resemble each other are the same."

We may first note in criticism of this point of view that it is always uncertain what Frazer means by his statements because the inferences he refers to are only "implicitly believed" or "tacitly assumed". But beliefs and assumptions are judgments, they are conscious processes in which the middle term between two associated images is known to the thinker. Apart from this terminological haze which hangs over the whole discussion and which alone serves to obscure all issues there is a hopeless jumble of psychological and sociological problems in which psychological concepts are used where they are quite irrelevant. We must keep our problems distinct if we are to find our way through this labyrinth of vague generalisations. Sensations and abstractions and simple comparison of abstractions are psychological processes common to all mankind and in a sociological study of magic they do not concern us as psychological facts. We are also not concerned with the question why magical associations embody notions of position and resemblance. It is inconceivable that they should not. The problem which concerns us is related to the social value or social indication which is given to objects and qualities. This value may be empirical, that is to say it may attribute to a thing, and utilise, the qualities which it really possesses. For example, a stone is considered to be hard and is therefore used as a tool. Or the value may be mystical, that is to say it may attribute to a thing qualities which it does not possess and which are not subject to sensory impressions. For example a stone may be used in magical rites or be considered the dwelling place of a spirit. The perception of similar colouring in gold and jaundice is a psychological fact which requires a psychological explanation. The embodiment of this perception in a social technique is a sociological fact and requires a sociological explanation. It is not our business to explain the sensations which the physical qualities of an object produce in men but it is our task to explain the social qualities with which men invest the object. The tendency of Tylor and Frazer to explain social facts in terms of individual psychology have been justly criticised by Durkheim and his school. Either this means that a pattern of thought can be explained in terms of psycho-physical functioning of an individual's brain which appears to be absurd if only because the pattern existed before the individual was born and he inherited it as part of his social heritage, even when it involves sensations which have to be individually experienced, or it means that a pattern of thought can be explained by an individual's mental content which is, of course, no explanation at all.
Even the simplest associations if they are to be anything more than passing images are creations of social usage, of language, of technology, of magic, and so on. This is why in experiments on association there is really so little free association and why the responses evoked in so many subjects are so often of the same type. One is not surprised that a Greek peasant can see a resemblance between the colour of gold and the colour of jaundice but the problem is why he should associate these two things together in magical performances when he does not associate them together in other situations and why he associates these particular things and not other things which have the same qualities of colour. It would never occur to us to associate gold and jaundice together so why should the Greek peasant associate them together? The answer can hardly be avoided that he associates them together in certain situations because he learns to do so when he learns to speak and behave as other members of his society learn to speak and behave. But one presumes that the Greek peasant does not always make this association and that it is possible for him to think of and use gold without thinking of jaundice and even that he can think of jaundice without associating it with gold. It is also pertinent to ask why he should associate gold and not something else with jaundice, and in posing this question a whole range of problems present themselves. We ask whether there are other things which in their culture fulfil the conditions of colour and adaptibility to the requirements of magical usage, we ask what is the social value given to gold in other situations, we ask whether there is evidence of the association, in the situation of jaundice, having been borrowed as a single trait from neighbouring peoples, and we may ask many other questions.

The point I wish to emphasize is that these associations are situational associations. They derive their sociological significance because they are social facts and not because they are psychological facts. It is the social situation which gives them meaning, which even gives them the possibilities of expression. Magic and gold come into cultural associations in the life of an individual because they are linked together by a magical rite. We must not say that a Greek peasant sees that gold and jaundice have the same colour and that therefore he can use the one to cure the other. Rather we must say that because gold is used to cure jaundice colour associations between them become established in the mind of a Greek peasant. It may even be asked to what extent the resemblance between their colours is consciously formulated by the performer of the rite, to what extent he is aware of the colour link in the association of gold and jaundice.

No savage believes that everything which has the same size, or colour, or weight, or temperature, or sound, etc., are in mystical connection and can be used to operate on one another. If primitive man really mistook an ideal connection for a real one and confused subjective with objective experiences his life would be chaos. He could not exist. It is a psychological absurdity. Why then do savages only sometimes make these associations between phenomena and not always make them? Why do some peoples make them and others on the same cultural level, not make them? Knowledge of the cultural situation in which the association is made will alone answer these questions. The association will be found to be not a general one but a particular one which is specific in a certain situation. Stones and sun are not linked in a general association but only in the special situation in which a stone is placed in the fork of a tree to keep the sun from sinking. The association comes into being by the performance of a rite. There is no mystical relation between sun and stones but man endows a particular stone with a ritual quality by using it in a rite and for the duration of the rite. When a savage throws water into the air he does not imagine that by doing so he produces rain. He only thinks this when he throws water into the air during the performance
of a rite to produce rain. Hence there is no mistaken association of ideas. The association between a certain quality in one thing and the same quality in another thing is a correct and universal association. It does not violate the laws of logic for it is a psychological process altogether outside their sphere. It would certainly be a mistake were the savage to hold that because things are alike, in virtue of their likeness alone, act on one another at a distance or that by merely imitating an act he can produce it. But here again the savage makes no such mistake. He believes that certain rites can produce certain results and the mimetic or homeopathic elements in the rite are the manner in which the purpose of the rite is expressed. It is the rite itself, the performance of standardised movements and the uttering of standardised words and the other stereotyped conditions of ritual, which achieves the result. The savage does not say "Whatever I imitate will happen so that if I throw water into the air rain will fall". What he says is "There is no rain at this season of the year when there ought to be rain and if we get the rain-maker to perform a rite rain will fall and our crops will be saved". Why rites so often take a mimetic form is a psychological problem which we shall not discuss here. Harett has put forward a brilliant hypothesis but it is possible to advance other theories. We must therefore make the objection with Freud "dass die Assoziationslehre der Magie bloss die Wege aufklärt, welche die Magic geht, aber nicht deren eigentliches Wesen, nämlich nicht das Missverständnis, welches sie psychologische Gesetze an die Stelle natürlicher setzen heisst". 1

If I have criticised Frazer severely I render homage to his scholarship. The Golden Bough is an essential source-book for all students of human thought and the faithful way in which he has treated his authorities is an assurance that we drink at an undiluted stream. His writings have always been, and no less today than in the past, a stimulus to those working in the same field and every criticism is a tribute. But we can go farther than making these acknowledgments - we must take over from Tylor and Frazer many sound ideas and use them in the foundations of any theory of magic which is to stand the test of criticism and research. As we are, as it were, taking those ideas away with us, they may be listed as briefly as possible since in future writings they will be utilised, while those ideas which we believe to be erroneous and to which we have devoted lengthy criticism are being jettisoned once and for all.

(1) Tylor's exposition of the variations of magic as a form of social behaviour with variations in cultural development.

(2) Tylor's brilliant analysis of the mechanisms which compel and maintain faith in magic among savage and barbarous peoples.

(3) Frazer's observation, cautiously stated, of the oft found identity of the public magician with the political chief.

(4) The division of ritual into religion and magic on the formal basis of presence or absence of belief in spirits with attendant cult, put forward by Tylor and adopted by Frazer, is an acceptable terminological device. So much time and labour has been expended in a futile endeavour to define the respective spheres of magic and religion in the abstract that it is necessary to state that sociology studies social behaviour and distinguishes between one type of behaviour and another and whether a particular type of behaviour is labelled with one term or with another term is of minor interest. What is of importance is that all students in the same field should use key terms like magic and religion with the same meaning. Magic and religion are clearly what we define them

1. Totem und Tabu, p. 111
them to be in terms of behaviour. We do not want a discussion about the relation of abstractions to one another in a cultural vacuum but we want a discussion about the relations between magical behaviour and religious behaviour in specific cultures. Tylor and Frazer defined religion much more clearly than they defined magic and their division has been accepted by many scholars and may be used as a convenient starting point for more intensive research.

(5) Frazer's division of magic into "homoeopathic" and "contagious" likewise is a step in advance of Tylor's analysis and serves as a basis for still further analysis of the symbolism of magic.

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1. To mention only one: W. H. R. Rivers, Medicine, Magic and Religion, Kegan Paul, 1927, p. 4 and passim. This writer does not consider, however, that primitive peoples have the "concept of the natural" and therefore not of the supernatural.