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them in a Pickwickian sense. So true is this, that whoseever chooses can follow, for instance, from hour to hour, in De Cesare's voluminous chronicle, the conclave of 1878 which elected Leo XIII. There are set down the witticisms of the cardinals, not less than their graver actions, and such details as that. on the night preceding the final vote, Cardinal Pecci was so disturbed by the snoring of he had his mattresses taken into the corridor and slept on the floor. Sig. Berthelet, however, confines his atten-

tion to the legislative rather than to the gossipy history of conclaves, and herein lies his merit. The student of institution cannot fail to be interested in the development of the laws by which the oldest institution in the world has passed on, from pope to pope, during thrice six hundred years, the symbol and reality of its headship. In no other case has elective monarchy been able to maintain an unbroken line. The Holy Roman Empire endured, indeed, for a millennium, but during nearly half of that period its continuity depended on the fact that the succession was practically hereditary in the House of Hapsburg. So, likewise, the Dogeship of Venice the only other elective office which resisted the vicissitudes of many centuries, became after the locking of the Council in 1297, the appanage of a small oligarchy.

Sig. Berthelet wisely refers very briefly t the election of the first Roman pontiffs, be cause the record is often obscure, and his pur pose is not controversial. That corrupt practices early crept in, however, we can surmise for in 498 Symmachus promulgated canons t punish any one who, during the lifetime of a pope, openly or secretly intrigued for the election of his successor. In 681 the Eastern Emperor, Constantine Pogonatus, out of reverence for Benedict II., absolved future popes from the obligation of imperial confirmation But it was not till 1059 that Nicholas II., in creating the College of Cardinals, distinctly granted to them the right of voting for Pope, and left to the clergy and populace only a perfunctory expression of consent. Nicholes specified further that the Pone should, it nossible, be chosen from among the members of the Church at Rome: if none of them were fit, a candidate might be sought outside. It is well to remember, perhaps, that not long before this a corrupt layman, John XIX., had bought his election, and that at least one other layman, Adrian IV., has been Pope. No law day; but a custom stronger than law has limited eligibility to ecclesiastics, and for many hundred years past none but cardinals have been elected.

Alexander III, in the Lateran Council (1179) fixed two-thirds of the cardinals present at a conclave as the majority necessary to make valid an election-the number still required. The long contests of the popes with the German kings, and chronic disorders in Italy, called for more strenuous rules. After the death of Clement IV. in 1268 the interregnum dragged on for thirty-three months, till the people of Viterbo grew enraged, and took off the roof of the building where the conclave sat. Even exposure to the elements could not force the stubborn and fractions cardinals to yield; but the Pope whom they finally chose. Gregory X., compiled a constitution to govern future conclaves, and his constitution is now the first to which reference is usr 'ly secreev should be maintained; that, after five

bread, wine, and water; that they should receive no emolument till they had finished their work; that, under penalty of committing mortal sin, they should not allow their own or their family's interest, or any bargain, to influence their vote. Several succeeding popes legislated to prescribe what the cardinals should eat during the conclave, and Cardinal Paya y Rico and his attendants that | even how they should sleep; but simony and wire pulling were the two great evils against which, down to the end of the sixteenth century, one decent pontiff after another fulmi nated. Thus, Julius II. (1505) declared not only that a pope who got his office by simony should be held an heresiarch and anti-pope, and that the cardinals who supported him should forfeit their benefices and cardinalship, but also that all go-betweens and agents should, if clerics, be deprived of their livings and forbidden to bequeath property by will, and, as if guilty of leze majesty, should forfeit their possessions to the Holy See; if laymen, their of these different constitutions, which he has goods and fiels should revert to their secular lord. Fifty-three years later Paul IV. felt his own. In addition he furnishes important obliged to launch a similar anathema, holding out promise of pardon, however, to those who turned state's-evidence and revealed the names of bargaining cardinals.

To Pius IV. belongs the constitution, promulgated in 1562, which established much of the ceremonial and procedure that have since been followed. He prescribed, for instance, that the cardinals shall enter the conclave ten days after a pope dies; that they shall take at least one vote a day, besides the accessus, or supplementary vote; that the cells occupied by them shall be drawn by lot: that each cardinal may have two attendants, or conclavists; that a cardinal who has not taken orders shall not vote; that the food shall be carefully inspected to prevent surreptitious letters from being forwarded in it to the cardinals, etc. On most of these matters, the constitutions framed by subsequent popes—those of Gregory XV. and Clement XII. are the most importan -either repeated the injunctions, or amplifled them by going into more minute details. Gregory XV., for example, laid down the rules still in force as to the methods of election-by inspiration, by compromise, and by ballotprescribing also the size and form of the ballots, and how they should be counted.

This rapid survey will illustrate the steady tendency towards rigid formalism which we should expect to find in an ancient institution like the Roman Church, which depends so against the election of a layman exists to this largely on tradition and precedents. But as a proof of the sagacity of its rulers, as well as of the vitality of the institution, we find also in the legislation governing papal elections ample provision made for emergencies. To prevent the cardinals from usurping pontifical authority during an interregnum, to compel them to elect a new pone as speedily and honestly as possible, and to insist on rigid conformity to canonical procedure in ordinary circumstances, did not suffice; the laws must also instruct the cardinals how to proceed when political disturbances make it impossible to follow the usual routine. Within the past century, for example, the popes have twice been fugitives from Rome, and, since 1870, they have ceased to rule there as temby Bonaparte, and foreseeing that the concessor. He further absolved them from va- and of other matters. Meantime the two most

days, the cardinals should be put on a diet of rious prescribed forms, while insisting, however, that the new Pope must secure twothirds of the votes of those present. Pius IX. likewise, after the loss of the temporal power in 1870, issued three several bulls releasing the cardinals from their oath to observe the electoral constitution as to time, place, and conclave, as well as the more purely ceremonial customs. He also determined what should be done in case the concleve had to assemble outside of Rome, by instructing the cardinal dean, or the next in seniority, to choose its meeting-place. Thus we see how the papal legislators have succeeded in making laws, now rigid and now supple, to correspond on the one hand to the assumed immutability of their institution, and on the other to the most varied emergencies. In this respect, at least, they have shown themselves unequalled mas ters of statecraft.

The great value of Sig. Berthelet's book lies in the fact that it contains the text, in Italian. knit together with succinct explanations of extracts from papal bulls and rescripts on the temporal power and on papal nepotism, and appendices containing the ceremonial prescribed by Gregory XV., the autograph instructions of Clement XII. in regard to the procedure of the conclave, the vestments prescribed by the Master of Ceremonies in 1878. and the text of the oath which each cardinal takes on his admission to the Sacred College. The work is sufficiently important to deserve translation into English.

KÜLPE'S OUTLINES OF PSYCHOLOGY.

Outlines of Psychology, Based upon the Results of Experimental Investigation. By Oswald Külpe. Translated from the German by Edward Bradford Tichener. London: Swan Sonnenschein & Co.: New York: Macmillan & Co.

This work is dedicated "To my revered teach. er Wilhelm Wundt," and it pursues, in general, the method of Wundt. The translation is exact, but too literal. The sentences are not sufficiently broken up; and inaccuracies of expression, customary enough in German, are enroduced, which will be serious obscurities to the English reader. Thus, the effect of the translation upon the mind of the English reader is not so close to the effect of the original upon the German reader as it would be if literainess had been somewhat sacrificed to English habits of thought. Psychology is ow, of course, one of the inductive sciences; and the present work is not a popular presentation, but a higher treatise on the science. It is not an encyclopædic handbook. It is, as its title describes it, an outline account, yet it is by no means an elementary book; and it has 450-odd pages, of 42 lines to the page and 10 words to the line. It has the usual qualities, good and bad, of a German treatise. It is scientific, earnestly bent upon the ascertainment of the truth, in the general current of scientific research, painstaking. Let us examine a section or two, which shall be fair samples of the whole,

The subchapter on the quality of visual senporal sovereigns. Pius VI., driven into exile sations begins with a section (\$17) which we are told at its opening is to treat of the relaclave would be greatly embarrassed, decreed tions existing between sensation and the varithat in whatever city the largest number of our forms of light stimulation. But when we cardinals happened to be at the time of his come to read it, we find that it also treats of made for authority. He ordered that strice death they should convene and choose his suc-

striking relations of the kind proposed to be treated—namely, first, that two lights which, when unmixed, match to the eye, also have precisely the same effect in mixtures, and, second that a three-dimensional continuum is adequate to represent the relations of lights, in so far as they appear differently to the eye—are neither of them stated. The first assertion in the section, after delineating the subject of it so falsely is that "the velocity of the individual waves is very different in different cases." This vague German way of speaking of "different cases" ought in a translation to give way to the more definite style to which the English reader is accustomed, and be rendered, "for different parts of the spectrum." But, of course, the statement is not true. No doubt, the author was thinking of the frequency of oscillations, which is not a velocity at all. He next goes on to say that the sensation of brightness varies from the deepes black to the most brilliant white. This is a capital error. The color of brightness is not white, but intense yellow. Whoever is capable of making an observation of what he sees (as a psychologist, at any rate, ought to be able to dol, and who compares the color of a piece of white paper where direct sunlight falls upon it with the color of the rest of the paper illu minated by irregular reflection from white walls, will find the bright part to be yellow and exact experiment will show that the colo of brightness is a yellow, differing little from though somewhat more chromatic than, the D line. To mistake white for the color of brightness is to involve the subject in a terrible

Light is absurdly divided into mixed and ho mogeneous. Mixed light is defined as that "in which no particular wave length has a noticea ble predominance," so that it might be of any color: but we soon find the author means white light. Then comes the following: "We reach two conclusions, then: (1) that brightness qualities do not possess intensity as a separate, variable attribute; and (2) that an analysis of the qualities contained in mixed light requires their spatial or temporal isolation." Observe what this means. It is, first, that if we take a certain colored surface (for whether it be white or not, makes no difference) and merely vary its illumination, we shall vary it in only one respect. Perhaps the author means that the nestion will have the same hue with all intensities; but that is not true. And second it is gravely stated that to analyze the "qualities" it is necessary to separate their constitu ents. This may mean that we cannot analyze them by attending to one and neglecting the rest; but (not to speak of the inappropriate ness of the remark in a section on sensation pure and simple), since the sensation itself is incomplex, the author might as well remark that nobody can analyze water by attending to the hydrogen and overlooking the oxygen. In short, the conclusion introduced so formally is as good as meaningles.

Külpe then goes on to homogeneous light. "Homogeneous light, in the strictest sense of the term, has never been seen, so that we cannot say how it would be lensed." This is not true. The parts of any good spectrum of considerable dispersion, say from half-a-dozen flint-glass 60° prisms, are sensibly homogene ous. But perhaps what our author is thinking of may be that on Young's hypothesis, ac cording to which there are three fundamental sensations-red, green, and violet-the pure green is certainly not seen by a normal eye, and probably not the red either; so that we | whoever will actually make experiments in the | bing, and is likely to do better work, now that cannot exactly imagine how they would look. general line of Külpe's will find them instruc- she has cleared her desk and thus freed her

Külpe then goes on to say, "We thus have the curious result that what we call a color is really a connection of two simple qualities, color-tone and brightness." Now, in the first place, there are three, and not two elements only. They may be stated as hue, chroma (or saturationintensity), and illumination; or they may be stated as red, green, and violet; or in any one of innumerable other ways. Külpe has given no proof that any one of these methods of analysis is more or less true than any other, certainly not that the particular method he imperfectly describes is the only true one. He goes on to talk of sensations as if they were so many distinct entities, as contradistinguished from coordinates of a continuum, without the slightest pretence to any proof of such a concep tion. Then he makes this formal statement "A mixture of two mixed lights produces on the physical side a mean intensity, and on the psychological a brightness sensationlying mid their mind's ear and experiment upon the way between the two primary sensations." This is simply absurd. Do two lights shining on a piece of paper illuminate it less than the brighter light alone would do? He refers to the result of aggregating the lights and then halving the energy. But even that is very false "on the psychological side." There is no use of following further this sadly confused, vague, and somewhat inaccurate description As Külpe proceeds, it becomes worse and worse, and the section on "Theories of Visual Sensa tion." besides overlooking entirely the theory of Mrs. Franklin, discusses the other three weakly, and without understanding what real arguments can be brought forward.

Let us, by way of another sampling, see how the limen is defined. "The just noticeable stimulus is technically termed the stimulus limen, and the just noticeable stimulus-difference the difference limen." Now the stimulus limen is not a question of noticing at all. It s the limit between what is sensed and what is not sensed. As for the "difference limen," if there is any such thing, it is not what can be just noticed, but what the subject makes just sufficient effort to notice, and nothing more.

Let us next assay the chapter on Association. Here we find matter of real, though mainly negative, value. The first remark is, that the common assertion of the English school that ideas differ from sensations only in being fainter,"has never been demonstrated." Certainly, if it be meant that remembering the sight of a Jacqueminot rose is indistinguishable from seeing a tea rose, it has not only not been demonstrated, but we are in possession of all the facts needed to explode it for ever. It may be doubted whether any English writer has ever distinctly stated that there are two sorts of intensities to sensations -the objective intensity of the sensation, and the subjective intensity of the percept, or height of consciousness, insistency of presence and overriding of other ideas. Külpe describes some experiments instituted by himself to ascertain whether ordinary persons could, in their normal waking state, mistake fancies for things seen or the reverse. He finds that when, in a perfectly dark room, a light very close to the stimulus limen is thrown upon a screen most persons, though not all, occasionally, but rarely, think that it is only fancy and that they do not really see it; and that the same persons more often fancy they see a light when there is none. Some persons never have such fancies. This accords with ordinary experience so entirely that we might be tempted to declare the experimentation futile. Yet or has done better work than this piece of job-

tive. If they are so made that they can be subjected to mathematical analysis, it will be found that there is a subjective intensity (whatever that consists in) which, in ordinary persons, for sensations well above the limen, is vastly greater than for any ideas, but which depends besides upon the objective character of the ides, upon the effort of attention, upon the strength of the association, etc. Persons there are whose ideas so closely resemble sensations that they can distinguish some of them as unreal only by their being more influenced by efforts of attention. Thus, some artists speak of copying upon the canvas the imaginary pictures which they see by the side of their easels, and will request a person who stands where the image is to stand aside. Composers with a genius for instrumentation do something still more surprising when they combine the sounds of different instruments in effects so produced. Other persons, as Külpe has found, have no memorial or imaginative ideas which seem to them at all comparable with sensations. It is remarkable that those persons have not necessarily bad memories for ensations. The writer of this notice, until past middle life, could not seem to call up in is mind anything in the least like a color; but he has since acquired the power in a slight degree. Yet he always had an unusually accurate memory for colors. Külpe divides recognition into the direct and the indirect. The former is that in which the feeling "I am acquainted with that," or "That is what I am after," appears directly as soon as the right object is presented to sense. Indirect recognition is recognition by means of a comparison with an image carried in the memory. Kulpe remarks that the existence of direct recognition is proved by certain diseases of the brain. Thus, a patient has been known to describe a fork accurately, and yet when a fork was put into her hands she declared she was familiar with it, but did not know what it was. Now her not recognizing it as a fork shows that a satisfactory image was not called up by the definition of the fork; and yet the feeling of being acquainted with it was there just the

It appears, then, that the merit of this work s unequal. Sections which are exceedingly instructive will be found sandwiched with others upon which not sufficient study seems to have been bestowed.

My Literary Zoo. By Kate Sanborn. D. Appleton & Co. 1896. 16mo, pp. 149. Four handed Folk. By Olive Thorne Miller.

Boston: Houghton, Mifflin & Co. 1896. 12mo, pp. 201.

The Evolution of Bird-Song: With Observations on the Influence of Heredity and Imitation. By Charles A. Witchell. London: A. & C. Black; New York: Macmillan. 1896. Crown 8vo, pp. x, 253. Artistic and Scientific Taxidermy and

Modelling, etc. By Montagu Browne. London: A. & C. Black; New York: Macmillan. 1896. Fcp. 4to, pp. xii, 463, 33 illust. THE title of Miss Sanborn's booklet becomes intelligible on discovering that she means a collection of the sayings of literary people about their dogs, cats, and other pets; but there is nothing povel and hardly anything original in this lot of staple ana. The collectTHIS PAGE LEFT BLANK INTENTIONALLY