RUSSELL'S MARGINALIA IN HIS COPY OF WILLIAM JAMES'S *PRINCIPLES OF PSYCHOLOGY*

FRANCES BRENNAN AND NICHOLAS GRIFFIN
Philosophy / McMaster University
Hamilton, ON, Canada L8S 4K1

I. ORIGIN AND DESCRIPTION OF THE MARGINALIA

Russell's relationship to William James is most often discussed in reference either to Russell's critique of pragmatism or his rejection and subsequent acceptance of neutral monism. However, he had an earlier influential encounter with James's work when he read *The Principles of Psychology* in September 1894. Russell's reaction was very favourable but is often unacknowledged. Though he never withdrew his criticisms of James's pragmatism, nor his objections to James's manner of doing philosophy, he did exempt *The Principles of Psychology* from them. In an article written for *The Nation* on James's death, Russell said that James "was at his best where he had concrete facts to deal with", and he went on to single out the *Psychology* for special praise. It was, he said, "by far the most delightful and readable book on the subject".[1]

Russell's interest in the *Psychology* is demonstrated by the great number of marginalia in his copy.[2] There are 450, all in pencil, in a count

[1] "The Philosophy of William James" (1910), *Papers* 6: 268.

[2] Russell's copy is the British issue (London: Macmillan, 1891) of the third printing of the first American edition (2 vols., New York: Henry Holt, 1890). The copy, in his library at McMaster University, is signed "B. Russell | May 1894" and bears the bookplate of Bertrand and Alys Russell. All page references, except where otherwise noted, will be to this edition. The widely available Dover reprint (1950) has the same pagination.

russell: the Journal of the Bertrand Russell Archives
McMaster University Press
n.s. 17 (winter 1997–98): 123–70
ISSN 0036-01631

spanning the two volumes. The second volume, however, is much more extensively marked than the first. The 357 marginalia in the second volume account for approximately 80 percent of the total. Although 328 of the marginalia consist of vertical lines or underlinings without any explanatory remarks, it is still possible to ascertain some general themes in James with which Russell was particularly preoccupied. James's long chapter on "The Perception of Space" (2: 134–282) accounts for nearly one third of the marginalia in the second volume. There are 94 markings in this chapter, including sixteen verbal comments. Also, the final chapter, "Necessary Truths and the Effects of Experience", on the epistemology of the special sciences, seemed to have piqued Russell's interest, as it contains 40 marginalia.

Russell read the *Psychology* just as he was starting work on his Cambridge fellowship dissertation, which was to be on the philosophy of geometry. This was submitted in August 1895 and formed the basis of his first philosophical book, *An Essay on the Foundations of Geometry*.[3] Accordingly, the bulk of his serious reading from June 1894 to June 1895 was on geometry, especially non-Euclidean geometry (which was a relatively new subject to him). That Russell's central concern in his dissertation is to argue for the partially a priori character of geometry explains his interest in James's chapter on space-perception. It also explains part of his interest in the chapter on "Necessary Truths and the Effects of Experience", which contains a short section on geometry (2: 656–9). Russell marked this section heavily and is very critical of James. However, the importance of the *Psychology* to Russell's work is evidenced in the fact that he reread the whole of the second volume in June 1895 when he was actually writing his dissertation.

Though the majority of his marginalia pertain to his dissertation, there are plenty of comments which reveal that he took a personal interest in the "concrete facts"—accounts of experiments, case histories, anecdotes—that James describes. Indeed, James's work is notable in its attention to such factual matters. James himself described the book as "mainly a mass of descriptive details" lacking "any closed system" (1: vii). It is significant that James's main contribution to theoretical psychology in the book, his theory of emotions now commonly known as the

[3] Cambridge: at the U. P., 1897.

James–Lange theory, got short shrift from Russell. According to this theory, an emotion is the felt awareness of bodily reactions to some thought or sensation (2: 449–50). Russell, as a Hegelian idealist, rejected the theory as "materialistic" and "inadequate" from a psychological point of view (**92**; see also **95**).[4] In several other places where James makes philosophical points, Russell was equally critical, especially where James criticized Bradley, even implicitly (see, e.g. **2**, **4**, **36**).

However much Russell disagreed with James's philosophy later in his life, he remained a great admirer of his literary style. Reviewing Émile Boutroux's *William James*, Russell complained that the translation failed to capture James's "native uncouthness ... transatlantic wildness, the roughness ... the simple democratic friendliness which make his writings delightful" (*Papers* 6: 306). In another review, of James's posthumous *Essays in Radical Empiricism*, Russell, despite disagreeing with all its main contentions, still said it was "delightful to read" (*ibid.*, p. 304). Thus, when he singles out two Americanisms in the *Psychology* and writes "Yankee!" in the margin (**64**, **65**) it is doubtful that his comments are meant disparagingly, even though they may seem as if Cambridge, England is being snobbish at the expense of Cambridge, Mass. Since Russell was then engaged to an American, he was unlikely to use "Yankee" as a term of disdain.

Though geometry was clearly Russell's impetus to read the *Psychology*, some of his marginalia are personal. Even some of his criticisms of the James–Lange theory are based on his own reactions (**93**). Not surprisingly, Russell also reveals a great interest in James's various distinctions between different types of learners. On 6 October 1894 he wrote in his diary that James's *Psychology* had lead him to the generalization that the artistic mind was "non-intellectual" while the "remembering mind" was "more intellectual" (*Papers* 1: 67). However, he noted that though this distinction was attractive, it was most likely "either false or old". In the same entry he notes that he had "discovered reading James that almost all my psychical life is carried on in auditory and tactile images". Russell is clearly referring to a series of passages in the chapter on imagination in the second volume of *The Principles of Psychology*. James asserts that "poor visualizers" do not notice or remember visual images

[4] The bold references are to the numbered table of marginalia in sec. III of this paper.

in detail, which Russell thought a fair description of himself (**55**). Russell further comments that he is of "the auditory type", adding that "I never think except in words which I imagine spoken" (**56**). In Volume 1, James relays the experience of an "exceptionally intelligent friend" who could not form an image of his breakfast table, but knew its contents by "verbal images exclusively" (1: 265), to which Russell responds: "this is almost my own case" (**3**).

In other cases, the autobiographical element is less explicit. We may suppose, for example, that the persistent interest Russell takes in James's description of genius is at least in part implicitly autobiographical. This interest may be noted throughout the marginalia, but occurs most obviously in a series of passages marked in Chapter XXII. Russell draws vertical lines beside James's assertions that genius is the "*possession of similar association to an extreme degree*" (2: 360), and that geniuses either create new associations, or expand upon and "obey" them (2: 361). The former class (which includes philosophers and scientists) James calls "abstract reasoners" or "analysts"; the latter (which includes artists and critics) are "the men of intuitions". Lines appear similarly beside James's statements that an "analytic mind" is at a "higher stage" than an "intuitional one" (2: 363) and that an "intense interest or concentrated passion makes us think so much more truly and profoundly" (2: 367). It is hard not to suppose that Russell, in marking these passages, was gauging the temper of his own mind. During his first years at Cambridge, Russell had supposed that he would eventually meet some "really clever people ... whom I should at once recognize as my intellectual superiors" (*Auto.* 1: 64). In his second year, however, he was "disappointed" to discover that he already knew the cleverest people at the university, even though this gave him "increased self-confidence" (*ibid.*). Russell's marginalia demonstrate his intellectual sharpness when he records his own results for some of the tests James mentions—for example, that he could simultaneously multiply 421 312 212 by 2 and recite four verses of poetry in six seconds (**9**), a curious attainment by anyone's standards.

Although it is less evident from the marginalia, Russell's personal interest in the *Psychology* went beyond an attempt to assess his own intellect. When Russell first read the *Psychology*, he was living in Paris where he was working as an honorary attaché at the British Embassy. He had been sent there in a desperate attempt by his grandmother to prevent his marriage to Alys Pearsall Smith, a middle-class American woman five

years older than himself. Granny seems to have convinced herself that Alys was a scheming adventuress who had taken advantage of Bertie's youth and inexperience, and she did everything in her power to prevent the marriage. Her efforts came traumatically to a head in the summer of 1894 when, aided by her daughter, Russell's Aunt Agatha, and a suitably instructed family physician, she attempted to convince Russell that there was madness in both Alys's family and his own, and that any children they might have would suffer from insanity. As regards the Russell family, the allegations were certainly true (though the Pearsall Smiths boasted no more than a "peculiar" uncle).

Granny confronted Russell about Uncle Willy, a son of hers who from 1874 until his death in 1933 was incarcerated in a mental asylum in Middlesex after killing a fellow soldier while in the grip of a delusion. This was the first Russell had heard of Uncle Willy's madness, and though this plan failed to stop Russell from marrying Alys, he was understandably deeply perturbed by the fact that insanity was in his lineage. Russell wrote in his diary that his family was full of "ghosts and maniacs" and expressed the fear that he himself might go mad.[5] It is hard to suppose that a twenty-one-year-old whose own sanity had thus been indirectly called into question would read a long work on psychology without any thought of how it applied to his own case.[6] In fact, he made surprisingly few comments on these topics, though actually there is little in James's *Psychology* about heredity. Several passages (2: 683–7) were marked with lines by Russell, including two about hereditary epilepsy in guinea-pigs. Such markings would be inexplicable but for the fact that Russell's own father had been diagnosed as an epileptic. The fact that he makes so little of these matters suggest that perhaps he was soon able to take Granny's revelations more in his stride than his initial reaction in his diary suggests.

More of Russell's markings concern the social and domestic consequences of falling in love with someone deemed unacceptable by one's family. For example, Russell drew a line beside James's assertion that "there is unquestionably a native impulse in every one to conceal love-

[5] "'A Locked Diary'", *Papers* 1: 65–6 (entry for 20–1 July 1894).

[6] There is some further evidence of his interest from his reading in 1894. In September, just before he read James, he read *Hereditary Genius* by Francis Galton, the founder of eugenics.

affairs" (2: 433), and James's remark that the "impulse to conceal is more apt to be provoked by superiors than by equals or inferiors" (*ibid.*) is also marked by a line (see also **90**).[7] It is difficult to believe that Russell was not thinking of Granny and Aunt Agatha when he noted these passages, perhaps wishing he could have concealed his love for Alys, in light of the considerable turmoil his engagement had created at home. And, when James refers early on in the book to "speaking genially to one's aunt" as "the least thing in the world", Russell underlined the phrase (1: 126). It was, evidently, not the least thing in the world for him.

II. SOME PHILOSOPHICAL TOPICS IN THE MARGINALIA

The main reason that Russell read James, however, was not to gain insight into his own psychological condition, but to prepare for writing his Cambridge fellowship dissertation. In his dissertation, Russell wanted to isolate the a priori in geometry from the purely empirical. For this, psychological data about the origin of spatial concepts would be important if the enterprise was to be properly conducted in the light of the best available scientific evidence. James's chapter on space-perception (2: Chap. xx) was an important source of information for him on these matters.[8]

We know from surviving correspondence that in October 1894 Russell used the *Psychology* for a paper on "Geometrical Axioms" which was read to the Cambridge Moral Sciences Club on 9 November 1894. The psychological part of this paper left him dissatisfied: it was, he said, "the crux of the argument" but had been "treated much too sketchily, for want of the necessary knowledge".[9] Accordingly, he tried again in the dissertation itself. One of its four chapters was on the "Psychological Origin of Space-relations".[10] For this he reread James's second volume in June 1895.

[7] Russell comments on his propensity for concealment in *Auto.* 1: 38.

[8] Other important sources were Karl Stumpf's *Über der Psychologischen Ursprung der Raumvorstellung* (1873) and the well-known articles by Helmholtz collected in the second volume of his *Wissenschaftliche Abhandlungen* (1882–95).

[9] Russell to Alys Pearsall Smith, 29 Oct. 1894. See N. Griffin, *Russell's Idealist Apprenticeship* (Oxford: Clarendon P., 1991), p. 118, for further details about this paper.

[10] This was reported in a letter from Alys Russell to Carey Thomas, 1 Feb. 1896 (Thomas Papers, Bryn Mawr College Archives; copy in RA REC. ACQ. 474).

Neither the paper on geometrical axioms nor the fellowship dissertation has survived,[11] and, although parts of the dissertation were included in *An Essay on the Foundations of Geometry* and other writings with few substantial changes, the chapter on the "Psychological Origin of Space-relations" has disappeared without trace. The reason for this was its hostile reception by Russell's examiners, in particular his former philosophy tutor, James Ward. Alys Russell reported to Carey Thomas (1 Feb. 1896) that the chapter had been "severely criticized" by the examiners, and that "Ward felt very strongly that it was not necessary for the logically complete treatment of the subject".

Unfortunately, Russell's marginalia provide less information on his early views of space-perception that we might have hoped. The majority of his markings in James's Chapter xx consist of underlinings or vertical lines in the margins intended to mark passages for future reference. His most frequent comments are "Quote" (**68**, **69**, **72**, **73**, **75**, **79**) and "Important" (**68**, **70**, **79**)—unfortunately neither comment, in itself, indicates whether he agreed or disagreed with what James said in the passage thus marked. Moreover, in this chapter as elsewhere, some of his more extended comments concern the various optical tests and thought-experiments that James describes—usually indicating that Russell had tried out the tests (**82**, see also **25** *et al.*). Though these comments reveal how carefully Russell read the book—and something of the habits of a well-trained mathematics student, who was accustomed to working through examples in the course of reading a book—they reveal nothing of Russell's position in his lost writings on space-perception.

Russell did not mark up James's chapter on space-perception uniformly. His selectivity is apparent in the way he marked James's discussion of the construction of real space. This section covered two topics: the division of sensory spaces in order to permit measurement (of which Russell marked almost every page[12]), and the combination into a single space of the various sensory spaces (which Russell did not mark at all[13]). The topics he did not mark extensively are also worth reporting.

[11] See Griffin, pp. 118–23, for what is known of these two works.

[12] The possibility of measurement was the essential ground for Russell's general metrical geometry in *An Essay on the Foundations of Geometry* and also in his dissertation.

[13] The correlation of the various sensory spaces to form a single subjective space should have been a concern in some of Russell's later work, e.g., in *OKEW* where he

It is no surprise that he passed over passages on the physiology of perception (e.g., pp. 140–4, 222–31), or James's long discussion of feelings in the joints and muscles (pp. 189–203), and his discussions of spatial perception in the blind (pp. 203–10). Much of this would be too narrowly empirical to interest someone whose main concern was with the a priori in geometry. It is more surprising that he ignored what James had to say on the selectivity of perception (pp. 240–4) and "the choice of visual reality" (pp. 237–40), or the associated discussion of optical illusions (pp. 246–66), as these are certainly topics of philosophical interest.

Russell's marginalia concentrate overwhelmingly on three topics: James's treatment of spatial relations, and of the three-dimensionality and measurability of space. Little can be learnt from the section on measurement, except for Russell's rather surprising comment on page 175: "may we regard motion as also logically prior to space? I don't see why not" (77). At first sight, the suggestion seems preposterous since motion is surely motion *through space*. But what Russell has in mind is presumably that kinaesthetic and locomotor sensations are an essential presupposition for acquiring the concept of space. Indeed, in *An Essay on the Foundations of Geometry*, metrical space (i.e., space which admits the possibility of measurement) does logically presuppose the possibility of motion, since measurement is effected by congruence which involves the possibility of moving figures through space without distortion. In the *Essay*, however, motion is not a presupposition of every form of space. Projective space, which is logically prior to metrical, does not involve measurement and thus does not presuppose motion. Russell's comment in James tends to confirm the view, supported by other evidence, that projective geometry did not figure importantly in his dissertation.

Regarding spatial relations and the three-dimensionality of space, Russell took important doctrines from James. He accepted James's peculiar doctrine about the nature of spatial relations and followed James in rejecting Berkeley's New Theory of Vision. The latter fact is not revealed in Russell's marginalia; we learn it rather obliquely, through his relation with his future brother-in-law, the art connoisseur Bernard Berenson. Writing to Sylvia Sprigge, Berenson's biographer, in May 1954, Russell said that he thought Berenson was "under a misapprehension in following Berkeley's mistaken theory of vision. I put B.B. on to William James's *Psychology* to dissuade him from this view."[14]

developed his theory of perspectives, but again he largely ignored the matter.

Berkeley had argued that perception of distance must be a learned ability involving both sight and touch, since sight alone could only reveal the angle subtended by an object in the line of sight, and thus could not distinguish the angle subtended by a large, distant object from that subtended by a small, close one. Sight thus provided sensations in two dimensions, and we acquire the third through experience involving both sight and touch.[15] James controverts the theory at some length, taking account not only of Berkeley's work but of that of later writers, including Reid and Helmholtz (2: 212ff.). According to James, all sensation involves an inherent element of voluminousness (as he seeks to show with many examples, several marked by Russell). It is from this element of voluminousness alone that the notion of distance and the third-dimension arises (2: 134–44).

Russell marked several relevant passages with lines (e.g. on pp. 212, 213, 216, 218, 219). He seems particularly impressed with James's argument that if the third dimension were arrived at, as Berkeley said, in a way radically different from that of the other two, it would not "feel" homogeneous with the others and would be unlikely to be commensurable with them (p. 216; Russell marked this passage with two lines).[16] He also wrote "Good" against a passage on page 215 where James stresses

[14] Quoted in Sylvia Sprigge, *Berenson: a Biography* (Boston: Houghton Mifflin, 1960), p. 140n. The occasion for this was Russell's reading the manuscript of Berenson's *Florentine Painters of the Renaissance* in July 1895. For full details on this see Carl Spadoni, "Bertrand Russell on Aesthetics", in C. Spadoni and M. Moran, eds., *Intellect and Social Conscience: Essays on Bertrand Russell's Early Work* (Hamilton, Ont.: McMaster U. Library P., 1984), pp. 61–5; *Russell*, n.s. 4 (1984): 61–5. It is odd that Russell talks of putting Berenson on to James, since Berenson had been James's student at Harvard. And despite Russell's critique of the manuscript, Berkeley's theory remains unchallenged in Berenson's published book (cf. *Florentine Painters* [New York: Putnam, 1909], p. 3).

[15] George Berkeley, *An Essay towards a New Theory of Vision* (1709), §§ii–vi.

[16] However, he controverted another of James's arguments designed to show that the three-dimensionality of experienced space was a purely visual phenomenon. James remarked on the curious fact that looking at a landscape with the head inverted gives "a startling increase in perspective" (*Psychology*, 2: 213). Russell (**80**) commented that this did not prove James's point. He also cited a brief note, "The Perception of Distances in the Inverted Landscape" by Margaret Washburn of Cornell University (*Mind*, n.s. 3 [1894]: 438–40), which offered an explanation of the phenomenon but contested some of James's claims about the conditions under which it occurs.

the active role of the mind in interpreting data by trying to "unify" as much of it as possible (**81**). In this passage James agrees with Berkeley that the *measurement* of distances is learnt from experience (Russell is careful to highlight "measurement"), but maintains, against Berkeley, that sight alone is sufficient for this task.

Nonetheless, Russell did not, apparently, accept James's view that *all* sensations have a felt quality of voluminousness. Using introspection as his basis, he argued that "the source of a sound is localized, but not ... voluminous"; in so far as a sound had a volume it felt, according to Russell, as if it were in the ear (**66**). On the other hand, there are plenty of subsequent passages that Russell marked without comment; e.g., the passage on page 135 in which James says that this element of voluminousness "*is the original sensation of space*, out of which all ... exact knowledge of space ... is woven by processes of discrimination, association, and selection." There is, of course, no inconsistency here. It was, after all, *visual* sensation that James thought sufficient for distance and three-dimensionality, so the fact that sounds were not voluminous would not affect the refutation of Berkeley. The difficulty, for James, was that of showing (in the face of Berkeley's arguments to the contrary) that *purely* visual sensations were voluminous (and not merely extended).

The fact that Russell accepted James's critique of Berkeley was probably one reason for James Ward's objections to his dissertation, for Ward remained an adherent of Berkeley's theory. Ward's psychological views were stated first in his important article "Psychology" in the ninth edition of the *Encyclopaedia Britannica* (1886), and then, at much greater length, in *Psychological Principles*.[17] There is a remarkable degree of consistency between these two works, despite the long lapse between their publication. Although Ward does not refer to Berkeley's theory in the article, the book cites some of the grounds Berkeley gave in its favour and concludes that spatial magnitude (both real and apparent) presupposed the "tactual perception of space", that visual magnitude thus depended upon tactile magnitude, and that "distance is in the last resort entirely a tangible or locomotor magnitude" (pp. 153–4).

James's peculiarly empiricist view of relations is the second doctrine that Russell followed. James contrasts his own view with that of a "Platonist" who treats a relation as "quite incommensurable with the data of sensibility between which it may be perceived to obtain" (p. 148). For James a relation, at least a spatial relation, is of the same type as its relata: "Just as, in the field of quantity, the relation between two numbers is another number, so *in the field of space the relations are facts of the same order with the facts they relate*" (p. 149). Russell marked this passage "Very important" (**70**), and he quoted it approvingly in the *Essay* (p. 171).

James's claim is certainly an odd one, and his analogy does little to clarify his point. What does it mean to say that the relation between two numbers is another number? James adds to the confusion by further explanation:

> When we speak of the relation of direction of two points towards each other, we mean simply the sensation of the line that joins the two points together. *The line is the relation.* (*Psychology, ibid.*)

But suppose we imagine two points, say one above the other, joined by a line. How can the line be "the relation of direction" between them? There are two relations of direction—top-to-bottom and bottom-to-top—but only one line.

All this material is heavily marked in Russell's copy of James. It would seem to be an extreme form of empiricism, and thus of very little use to someone, like Russell, who was investigating the a priori in geometry. The use Russell makes of it is even more puzzling, since it occurs as part of an argument that any two points uniquely determine a line, especially in spherical geometry. But this is by no means guaranteed on James's account. Surely we can "see", "feel" or "imagine" (to stick to James's options) any one of a number of lines connecting the two.

More intelligibly, Russell appeals to the doctrine in an attempt to reconcile his view that space is purely relational with the fact that it is infinitely divisible. He notes (*Essay*, p. 137) that talk of dividing a relation may seem absurd, but the absurdity vanishes if the relation is a line. The apparent substantiality of spatial lines, which is one of the fundamental antinomies which Russell as a neo-Hegelian finds in geometry, is, he thinks, "a psychological illusion, unavoidably arising from the fact that spatial relations are immediately presented" (*Essay*, p. 196)—a view for which James's support is cited.

If Russell found much to agree with in James's account of space-

[17] Cambridge U. P., 1918.

perception, he was much less favourably impressed by James's account of geometry later in the *Psychology*. "This discussion of Geometrical axioms is worthless", he wrote at the end of James's section on "Mathematical Relations" (**119**). It is not hard to find the reasons. James's extreme empiricism would hardly have been congenial to Russell's apriorism (cf. **113**). The peculiarly neo-Hegelian character of Russell's enterprise is revealed in his next marginalium. James considered two worlds, one in which "all objects were in flux" and one (harder to discern) in which "all things differed, and in which what properties there were were ultimate and had no farther predicates" (pp. 651–2). Russell's comment that "our sensible world was, strictly, of both these kinds" and that "it was only logical necessity that made us think otherwise" (**114**), reveals how little faith he had that purely empirical experience was capable of producing scientific knowledge. It was "logical necessity", exhibited by the a priori principles of knowledge, that forced us to suppose the world more tractable for scientific theorizing.

On one point, however, James's views were more advanced than Russell's. On page 658 James considers spaces of variable curvature, claiming that a geometry "as absolutely certain as ours" could be constructed for them. Russell rejects the idea emphatically (**118**). One of his chief conclusions about metrical geometry in the *Essay* was that only spaces of constant curvature were a priori possible. On this point, at least, it is easy now to see that James was right and Russell wrong.

III. TEXT OF THE MARGINALIA

A full record of the passages in James's *Principles of Psychology* marked by Russell has been made and deposited in the Russell Archives. In section III we give all those marginalia in which Russell supplied a comment. Square brackets in the Marginalium column are Russell's own, as is all underlining. Editorial commentary is enclosed in angle brackets. All footnotes are the editors'. Russell employed his standard manuscript abbreviations in composing his marginalia. Since their meaning is not doubtful, they have been expanded silently here.[18]

[18] We would like to thank Ken Blackwell for his careful editorial work on this paper.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
1. VOLUME I, *p. 130* To Descartes belongs the credit of having first been bold enough to conceive of a completely self-sufficing nervous mechanism which should be able to perform complicated and apparently intelligent acts.	& Hobbes?[19]
2. *p. 242* *Whatever* the content of the ego may be, it is habitually felt *with* everything else by us humans, and must form a *liaison* between all the things of which we become successively aware.	cf Bradley in Mind[20]
3. *p. 265* An exceptionally intelligent friend informs me that he can frame no image whatever of the appearance of his breakfast-table. When asked how he then remembers it at all, he says he simply *'knows'* that it seated four people, and was covered with a white cloth on which were a butter-dish, a coffee-pot, radishes, and so forth. The mind-stuff of which this 'knowing' is made seems to be verbal images exclusively.	this is almost my own case
4. *p. 299* For this central part of the Self is *felt*. It may be all that Transcendentalists say it is, and all that Empiricists say it is into the bargain, but it is at any rate no *mere ens rationis*, cognized only in an intellectual way, and no *mere* summation of memories or *mere* sound of a word in our ears. It is something with which we also have direct sensible acquaintance, and which is as fully present at any moment of consciousness in which it *is* present, as in a whole lifetime of such moments.	cf Bradley again[21]

[19] Russell here refers to Hobbes's mechanistic conception of human nature expounded in *Leviathan*, Pt. I.

[20] F. H. Bradley, "Consciousness and Experience", *Mind*, n.s. 2 (1893): 211–16.

[21] *Ibid.*

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
5. *p. 341* It <the present moment of consciousness> may feel its own immediate existence—we have all along admitted the possibility of this, hard as it is by direct introspection to ascertain the fact—but nothing can be known *about* it till it be dead and gone.	this is paradoxical but I daresay it is true
6. *p. 347* Even if the brain could not cognize universals, immaterials, or its 'Self', still the 'Thought' which we have relied upon in our account *is* not the brain, closely as it seems connected with it; and after all, if the brain could cognize at all, one does not well see why it might not cognize one sort of thing as well as another. The great difficulty is in seeing how a thing can cognize *anything*. This difficulty is not in the least removed by giving to the thing that cognizes the name of Soul. The Spiritualists do not deduce any of the properties of the mental life from otherwise known properties of the soul.	There is some resemblance here to Locke's doctrine that matter might think, only then it would also be spirit.[22]
7. *p. 393* In *'mediumships'* or *'possessions'* the invasion and the passing away of the secondary state are both relatively abrupt, and the duration of the state is usually short—i.e., from a few minutes to a few hours. Whenever the secondary state is well developed no memory for aught that happened during it remains after the primary consciousness comes back. The subject during the secondary consciousness speaks, writes, or acts as if animated by a foreign person, and often names this foreign person and gives his history.	Important. cf. Moses
8. *p. 406* Even Dugald Stuart opines that every *minimum visibile* of a pictured figure	

[22] Locke, *Essay*, IV.iii.6.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) "constitutes just as distinct an object of attention to the mind as if it were separated by an interval of empty space from the rest.... It is impossible for the mind to attend to more than one of these points at once; and as the perception of the figure implies a knowledge of the relative situation of the different points with respect to each other, we must conclude that the perception of figure by the eye is the result of a number of different acts of attention. These acts of attention, however, are performed with such rapidity, that the effect, with respect to us, is the same as if the perception were instantaneous."	ass!
9. *p. 408* M. Paulhan compared the time occupied by the same two operations done simultaneously or in succession, and found that there was often a considerable gain of time from doing them simultaneously. For instance: "I write the first four verses of Athalie, whilst reciting eleven of Musset. The whole performance occupies 40 seconds. But reciting alone takes 22 and writing alone 31, or 53 altogether, so that there is a difference in favour of the simultaneous operations." Or again: "I multiply 421 312 212 by 2; the operation takes 6 seconds; the recitation of 4 verses also takes 6 seconds. But the two operations done at once only takes 6 seconds, so that there is no loss of time from combining them."	I tried the same, with the same result: the difficulty came at the beginning of every line of the poem.
10. *p. 419* "And it is reported of Newton that, while engaged in his mathematical researches, he sometimes forgot to dine."	Like Stout![23]

[23] G. F. Stout, one of Russell's philosophy teachers.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
11. *p. 419* "On the day of his marriage the great Budaeus forgot everything in his philological speculations, and he was only awakened to the affairs of the external world by a tardy embassy from the marriage-party, who found him absorbed in the composition of his *Commentarii.*"	!!!
12. *p. 458* It <displacement activity> drains away nerve-currents which if pent up within the thought-centres would very likely make the confusion there worse confounded. But may it not also be a means of drafting off all the irrelevant sensations of the moment, and so keeping the attention more exclusively concentrated upon its inner task?	Tobacco
13. *p. 467* Let it be a polygonal space, which we cut into triangles, and of which we then affirm that it *is* those triangles. Here the experimentation (although usually done by a pencil in the hands) may be done by the unaided imagination.	<Russell has tried the experiment and has drawn a pentagon cut into 5 triangles.>
14. *p. 468* They <conceptions> form an essentially discontinuous system, and translate the process of our perceptual experience, which is naturally a flux, into a set of stagnant and petrified terms.	The important point is that conceptions are discontinuous.
15. *p. 473* A universal or general conception is of an entire class, or of something belonging to an entire class, of things. The conception of an abstract quality is, taken by itself, neither universal nor particular.* If I abstract *white* from the rest of the wintery landscape this morning, it is a perfectly definite conception, a self-identical quality which I may mean again; but, as I have not yet individualized it by expressly meaning to restrict	But an individual is universal at least in the sense of persistence in time: cf. Bradley's Logic.[24]

[24] Bradley, *Principles of Logic*, Bk. I, Chap. I, §§4–10.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) it to this particular snow, nor thought at all of the possibility of other things to which it may be applicable, it is so far nothing but a 'that,' a 'floating adjective,' as Mr. Bradley calls it, or a topic broken out from the rest of the world.	
16. *p. 493* It is the mind-dust theory, with all its difficulties in a particularly uncompromising form; and all for the sake of the fantastic pleasure of being able arbitrarily to say that there is between the things in the world and between the 'ideas' in the mind nothing but absolute sameness and absolute not-sameness of elements, the not-sameness admitting no degrees.	But see Bradley on this point in Mind.[25]
17. *p. 499* The explanation (I devoutly expect) will be found some day to depend on cerebral conditions. Until it is forthcoming, we can only treat the sequence as a special case of the general law that every experience undergone by the brain leaves in it a modification which is one factor in determining what manner of experiences the following ones shall be (*cf.* pp. 232–236).	?? Surely psychology is bound to seek a purely psychological solution.
18. *p. 511* *And only when this different* SETTING *has come to each is our discrimination between the two flavors solid and stable.*	?
19. *p. 511* The names differ far more than the flavors, and help to stretch these later farther apart. Some such process as this must go on in all our experience. Beef and mutton, strawberries and raspberries, odor of rose and odor of violet, contract	Yes but the difference of name is not included in that of taste

[25] Bradley, "On Professor James' Doctrine of Simple Resemblance", *Mind*, n.s. 2 (1893): 83–8, and rejoinders, *ibid.*, 366–9, 510.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) different adhesions which reinforce the differences already felt in the terms.	
20. *p. 525* ... Prof. Cattell found the time required for distinguishing a white signal from no signal to be, in two observers: ... 0.030 sec. and 0.050 sec.; that for distinguishing one colour from another was similarly: 0.100 and 10.10;	? 1.010 or .101[26]
21. *p. 532* "Our very calling one of the notes a 'middle' note is the expression of a judgment of this sort. But where here is the identical and where the non-identical part? We cannot think of the overtones; for the first-named three notes have none in common, at least not on musical instruments. Moreover, we might take simple tones, and still our judgment would be unhesitatingly the same, provided the tones were not chosen too close together...."[27]	Good
22. *p. 540* *This difference-threshold should be a constant fraction* (no matter what is the size of *S*) *if Weber's law holds universally true.* The difficulty in applying this method is that we are *so often in doubt* whether anything has been added to *S* or not. Furthermore, if we simply take the smallest *d* about which we are *never* in doubt or in error, we certainly get our least discernible difference larger than it ought theoretically to be.	Is Weber's law the same as Fechner's? Apparently. [v p. 545].

[26] Later printings of James convert the second figure to "0.110".
[27] The quotation is from Stumpf's *Tonpsychologie*, 1: 111–21.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
23. *p. 546* These assumptions are all peculiarly fragile. To begin with, the *mental fact* which in the experiments corresponds to the increase of the stimulus is not an *enlarged sensation*, but a *judgment that the sensation is enlarged.* What Fechner calls the 'sensation' is what appears to the mind as the *objective phenomenon* of light, warmth, weight, sound, impressed part of body, etc. Fechner tacitly if not openly assumes that such a *judgment of increase* consists in the simple fact that an *increased number* of sensation-units are present to the mind; and that the judgment is thus itself a quantitatively bigger mental thing when it judges large differences, or differences between large terms, than when it judges small ones. But these ideas are really absurd. The hardest sort of judgment, the judgment which strains the attention most (if *that* be any criterion of the judgment's 'size'), is that about the *smallest* things and differences. But really it has no meaning to talk about one judgment being bigger than another. And even if we leave out judgments and talk of sensations only, we have already found ourselves (in Chapter VI) quite unable to read any clear meaning into the notion that they are masses of units combined. To introspection, our feeling of pink is surely not a portion of our feeling of scarlet; nor does the light of an electric arc seem to contain that of a tallow-candle in itself.	Is this criticism quite fair?
24. *p. 546* Compound *things* contain parts; and one such thing may have twice or three times as many parts as another. But when we take a simple sensible quality like light or sound, and say that there is now twice or thrice as much of it present as there was a moment ago, although we seem to	But v. Kant, Anticipationen der Wahrnehmung[28]

[28] *Critique of Pure Reason*, "Transcendental Analytic", Bk. 2, Chap. 2, sec. 3.2 ("Anticipations of Perception").

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) mean the same thing as if we were talking of compound objects, we really mean something different.	
25. *p. 576* If the word *tooth* now suddenly appears on the page before the reader's eye, there are fifty chances out of a hundred that, if he gives it time to awaken any image, it will be an image of some operation of dentistry in which he has been the sufferer.	It has just happened so with me in reading this sentence.
26. *p. 579* Foot-ball and gas-jet are in no respect similar—that is, they possess no common point, no identical attribute. Similarity, in compounds, is partial identity. When the *same* attribute appears in two phenomena, though it be their only common property, the two phenomena are similar in so far forth.	James must then distinguish this similarity from the "resemblance" he spoke of above as more ultimate than identity
27. *p. 581* … possibly neural laws will not suffice, and we shall need to invoke a dynamic reaction of the form of consciousness upon its content.	meaning?
28. *p. 581* To sum up, then, we see that the *difference between the three kinds of association reduces itself to a simple difference in the amount of that portion of the nerve-tract supporting the going thought which is operative in calling up the thought which comes.*	1st & 3rd kinds are limiting forms of the 2nd
29. *p. 586* Now all these added associations *arise independently of the will,* by the spontaneous process we *know so well. All that the will does is to emphasize* and linger over those which seem pertinent, and ignore the rest.	This accounts admirably for the gradual acquirement of ease in symbolic operations whether in Mathematics or Logic, the irrelevant suggestions becoming

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.)	weakened & the relevant ones strengthened by habit.
30. *p. 589* "The other circumstance is, that every kind of reasoning is nothing, in its simplest form, but attention."[29]	& imagination
31. *p. 593* Recent writers, in fact, all reduce it <contrast> either to similarity or contiguity. Contrast always presupposes generic similarity.…	cf Welsh Guide-Book "The torrent walk at Dolgelly has been contrasted with the far-famed Drachenfels on the Rhine." Clearly reducible to similarity!
32. *p. 594* Everything else is pretty certainly due to cerebral laws. My own opinion on the question of active attention and spiritual spontaneity is expressed elsewhere. But even though there be a mental spontaneity, it can certainly not create ideas or summon them ex abrupto. Its power is limited to *selecting* amongst those which the associative machinery has already introduced or tends to introduce. If it can emphasize, reinforce, or protract for a second either one of these, it can do all that the most eager advocate of free will need demand; for it then decides the direction of the next associations by making them hinge upon the emphasized term; and determining in this wise the course of the man's thinking, it also determines his acts.	? Surely this perpetual reference to the brain is a methodological error. But what does create ideas? To say "the brain" is the crudest materialism.
33. *p. 597* "Nothing is requisite to make any man whatever he is, but a sentient principle with this single	!

[29] The quotation is from Shadworth Hodgson's *The Theory of Practice,* 1: 400.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) law.... Not only all our intellectual pleasures and pains but all the phenomena of memory, imagination, volition, reasoning and every other mental affection and operation, are but different modes or cases of the association of ideas."	
34. *pp. 598–9* Belief in anything *not* present to sense is the very lively, strong, and steadfast association of the image of that thing with some present sensation, so that as long as the sensation persists the image cannot be excluded from the mind.	Hume's definition
35. *p. 599* Judgment is 'transferring the idea of *truth* by association from one proposition to another that resembles it.'[30]	!!
36. *p. 604n.* Mr. F. H. Bradley seems to me to have been guilty of something very like this *ignoratio elenchi* in the, of course, subtle and witty but decidedly long-winded critique of the association of ideas, contained in book II., part II. chap. I. of his Principles of Logic.	I doubt this: his discussion is purely epistemological & prefaced by the remark that in Psychology it is not a theory but a fact.
37. *p. 620* It takes but a small exertion of introspection to show that the latter alternative is the true one, and that *we can no more intuit a duration than we can intuit an extension, devoid of all sensible content.*	of course
38. *p. 622* This composition out of units of duration is called the law of time's *discrete flow*. The discreteness is, however, merely due to the fact that	The discreteness in short is only in the intellectual elaboration

[30] The quotation is from Joseph Priestley's *Hartley's Theory of the Human Mind*, p. xxx.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) our successive acts of *recognition* or *apperception* of *what* it is are discrete.	of the sensible datum.
39. *p. 627* Exactly parallel variations occur in our consciousness of space. A road we walk back over, hoping to find at each step an object we have dropped, seems to us longer than when we walked over it the other way. A space we measure by pacing appears longer than one we traverse with no thought of its length. And in general an amount of space attended to in itself leaves with us more impression of spaciousness than one of which we only note the content.	A space in a new place seems far longer than when grown familiar: this corresponds to the slower passage of time in youth.
40. *p. 628* "<The only case in which> ... our perceptions can truly correspond with outer reality, is that of the *time-succession* of phenomena. Simultaneity, succession, and the regular return of simultaneity or succession, can obtain as well in sensations as in outer events. Events, like our perceptions of them, take place in time, so that the time-relations of the latter can furnish a true copy of those of the former. The sensation of the thunder follows the sensation of the lightning just as the sonorous convulsing of the air by the electric discharge reaches the observer's place later than that of the luminiferous ether."[31]	This only amounts to asserting the outer world to be a happening, like the inner.
41. *p. 631* But *the original paragon and prototype of all conceived times is the specious present, the short duration of which we are immediately incessantly sensible.*	Psychologically i.e.

[31] The quotation is from Hermann von Helmholtz's *Handbuch der physiologishen Optik*, 1: 445.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
42. *p. 640* Express acts of memory replace rapid bird's eye views. In my own case, something like this occurs in extreme fatigue. Long illnesses produce it.	in my own case too & I suppose in everyone's
43. *p. 644* All the intellectual value for us of a state of mind depends on our after-memory of it. Only then is it combined in a system and knowingly made to contribute to a result. Only then does it *count* for us. So that *the* EFFECTIVE *consciousness we have of our states is the after-consciousness*; and the more of this there is, the more influence does the original state have, and the more permanent a factor is it of our world.	Cf suggestion above that under anaesthetics we perhaps suffer but forget.
44. *p. 664* We may say, then, that a man's native tenacity will fluctuate somewhat with his hygiene, and that whatever is good for his tone of health will also be good for his memory. We may even say that whatever amount of intellectual exercise is bracing to the general tone and nutrition of the brain will also be profitable to the general retentiveness.	But it is just as easy to affect one's body as one's mind by conduct
45. *p. 676* I must confess that the quality of mystery seems to me a little strained. I have over and over again in my own case succeeded in resolving the phenomenon into a case of memory, so indistinct that whilst some past circumstances are presented again, the others are not. The dissimilar portions of the past do not arise completely enough at first for the date to be identified. All we get is the present scene with a general sugges-	Surely this is insufficient; the experience is accompanied by surprise, by a haunting feeling at every 4th occurrence: why, all this happened before—& yet often it never has really happened before

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) tion of pastness about it. That faithful observer, Prof. Lazarus, interprets the phenomenon in the same way;* and it is noteworthy that just as soon as the past context grows complete and distinct the emotion of weirdness fades from the experience.	so far as one can ascertain.
46. *p. 678* Now, if 1 and 3 in the first list were learned in that order merely by 1 calling up 2, and by 2 calling up 3, leaving out the 2 ought to leave 1 and 3 with no tie in the mind; and the second list ought to take as much time in the learning as if the first list had never been heard of.	But surely some labour would be saved by the fact that the individual words were known; I should have thought this would make the 2nd process not purely associative. [On 2nd thoughts I am persuaded the inference in the text is sound.]
47. *p. 689* But why not 'pool' our mysteries into one great mystery, the mystery that brain-processes occasion knowledge at all?	This would surely be more than a mystery; being, if true, itself knowledge, it would be a vicious circle.
48. VOLUME II, *p. 7* Conceptual systems which neither began nor left off in sensations would be like bridges without piers. Systems about fact must plunge themselves into sensation as bridges plunge their piers into the rock.	applies to Metageometry
49. *p. 8* In his dumb awakening to the consciousness of *something there*, a mere *this* as yet (or something for which even the term *this* would perhaps be too discriminative, and the intellectual acknowledgement of which would be better expressed by the bare interjection 'lo!'), the infant encounters	

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) *an object in which (though it be given in a pure sensation) all the 'categories of understanding' are contained. It has objectivity, unity,* substantiality, causality, in the full sense in which any later object or system of objects has these things.	? Surely it takes consciousness of at least 2 things to give Causality.
50. *p. 10* The only reals for the neo-Hegelian writers appear to be *relations*, relations without terms, or those terms are only speciously such and really consist in knots, or gnarls of relations finer still *in infinitum.*	This is only poor Green's view—it is not fair to foist it on Hegelians in general.[32]
51. *p. 11n.* The ubiquity of the 'psychologist's fallacy' (see p. 196) in his pages, his incessant leaning on the confusion between the thing known, the thought that knows it, and the farther things known about that thing and about that thought by later and additional thoughts, make it impossible to clear up his meaning.	Good
52. *p. 29* Similarly there is a *chromatic minimum* of size in objects. The image they cast on the retina must needs have a certain extent, or it will give no sensation of colour at all.	cf. Stumpf.[33]
53. *p. 32* Our earliest, most instinctive, least developed kind of consciousness is the objective kind; and only as reflection becomes developed do we become aware of an inner world at all.	cf Kant, Refutation of Idealism[34]

[32] T. H. Green, one of the first Hegelian philosophers in Britain. The reference is to his highly critical introduction to his edition of Hume's *Treatise* (1874). See §§146, 188.

[33] Cf. Karl Stumpf, *Über den psychologischen Ursprung der Raumvorstellung* (1873), §5.

[34] *Critique of Pure Reason*, "Transcendental Analytic", Bk. 2, Chap. 2, sec. 3.4.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
54. *p. 53* "*They can also become painters of the rank of Royal Academicians.*"	!!
55. *p. 57* The poor visualizer says: "My ability to form mental images seems, from what I have studied of other people's images, to be defective, and somewhat peculiar. The process by which I seem to remember any particular event is not by a series of distinct images, but a sort of panorama, the faintest impressions of which are perceptible through a thick fog.—I cannot shut my eyes and get a distinct image of anyone, although I used to be able to a few years ago, and the faculty seems to have gradually slipped away.—In my most vivid dreams, where the events appear like the most real facts, I am often troubled with a dimness of sight which causes the images to appear indistinct.—To come to the question of the breakfast table, there is nothing definite about it. Everything is vague. I cannot say what I see. I could not possibly count the chairs, but I happen to know that there are ten. I see nothing in detail. The chief thing is a general impression that I cannot tell exactly what I do see. The colouring is about the same, as far as I can recall it, only very much washed out. Perhaps the only color I can see at all distinctly is that of the tablecloth, and I could probably see the color of the wall-paper if I could remember what color it was."	This would do for a description of my own case, except in the case of childish memories, & a few others of strong emotional interest.
56. *p. 60* "*The auditory type,*" says M. A. Binet, "*appears to be rarer than the visual.* Persons of this type imagine what they think of in the language of sound. In order to remember a lesson they impress upon their minds, not the look of the page, but the sound of the words. They reason, as well as remember, by ear. In performing a mental addition they repeat verbally the names of the figures, and add, as it were, the sounds, without any thought of the graphic signs."	Mine is the auditory type. I never think except in words which I imagine spoken.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
57. *p. 61n.* I must trace the letter by running my mental eye over its contour in order that the image of it shall have any distinctness at all.	So must I.
58. *p. 68* So far as I know there is only one other published report of a similiar experience <of a negative after-image of something imagined visually>.	I find it my own case that in the effort to imagine any visual or tactual sensation, the words which describe it intervene & baffle me—but if I mentally rehearse a conversation, so that my mind is intent on auditory images, I see & feel its appropriate background dimly, as I should in a real conversation.
59. *p. 71* At night hearing a very faint striking of the hour by a far-off clock, our imagination reproduces both rhythm and sound, aud it is often difficult to tell which was the last real stroke. So of a baby crying in a distant part of the house, we are uncertain whether we still hear it, or only imagine the sound.	I have often heard the chimes at night go on at intervals for 5 or 10 minutes & been quite unable to tell the real from the imagined
60. *p. 94* Take a single pair of crossed lines (Fig. 49), hold them in a horizontal plane before the eyes, and look along them, at such a distance that with the right eye shut, 1, and with the left eye shut, 2, looks like the projection of a vertical line.	[It is necessary to have one's eyes on a level with the paper.]
61. *p. 95* <Figure 50.>	This illusion is extraordinarily vivid.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
62. *p. 97* Similarly at the so-called 'materializing séances' which fraudulent mediums give: in a dark room a man sees a gauze-robed figure who in a whisper tells him she is the spirit of his sister, mother, wife, or child, and falls upon his neck. The darkness, the previous forms, and the expectancy have so filled his mind with premonitory images that it is no wonder he perceives what is suggested. These fraudulent 'seances' would furnish most precious documents to the psychology of perception if they could only be satisfactorily inquired into. In the hypnotic trance any suggested object is sensibly perceived. In certain subjects this happens more or less completely after waking from the trance. It would seem that under favorable conditions a somewhat similar susceptibility to suggestion may exist in certain persons who are not otherwise entranced at all.	cf. the puzzled effort to harmonize sensation with the expected perception on waking in a different place from that of our dreams—it becomes almost impossible for a time to pass from sensation to perception.
63. *p. 112n.* Illusions would thus be *logical fallacies*, if true perceptions were valid syllogisms. They would draw false conclusions from undistributed middle terms.	So would true perceptions, according to the account above given.
64. *p. 118* "About eight o'clock in the evening I went into the dining-room to <u>fix</u> a cup of tea...."	Yankee!
65. *p. 119* "I did not speculate particularly about the strange appearance of the night before, and though I thought of it <u>some</u>, I did not tell anybody."	Yankee again!
66. *p. 134* *In the sensations of hearing, touch, sight, and pain we are accustomed to distinguish from among the other elements the element of voluminousness.*	The volume of a sound, as introspection shews it me, feels as if it were

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.)	inside the ear: the source of the sound is localized, but not so far as I can discover, voluminous.
67. *p. 147* This element of constructiveness is present in a still higher degree, and carries with it the same consequences, when we deal with objective spaces too great to be grasped by a single look. The relative positions of the shops in a town, separated by many tortuous streets, have to be thus constructed from data apprehended in succession, and the result is a greater or less degree of vagueness.	Hence maps
68. *p. 148* Distance-apart, too, is a simple sensation—the sensation of a line joining the two distant points: lengthen the line, you alter the feeling and with it the distance felt.	Important [quote]
69. *pp. 148–9* We may consequently imagine a disciple of this school to say to us at this point: "Suppose you *have* made a separate specific sensation of each line and each angle, what boots it? You have still the order of directions and of distances to account for; you have still the relative magnitudes of all these felt figures to state; you have their respective positions to define before you can be said to have brought order into your space. And not one of these determinations can be effected except through an act of relating thought, so that your attempt to give an account of space in terms of pure sensibility breaks down almost at the very outset. *Position*, for example, can never be a sensation, for it has nothing intrinsic about it; it can only obtain *between* a spot, line, or other figure and *extraneous co-*	Quote in connexion with Congruence, with James's answer.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) *ordinates*, and can never be an element of the sensible datum, the line or the spot, in itself. Let us then confess that Thought alone can unlock the riddle of space, and Thought is an adorable but unfathomable mystery.	
70. *p. 149* But just as, in the field of quantity, the relation between two numbers is another number, so *in the field of space the relations are facts of the same order with the facts they relate. If these latter be patches in the circle of vision, the former are certain other patches between them.*	<In the left margin:> Very important. <In the right:> ?
71. *pp. 149–50* When we speak of the relation of direction of two points toward each other, we mean simply the sensation of the line that joins the two points together. The line is the relation; feel it and you feel the relation, see it and you see the relation; nor can you in any conceivable way think the latter except by imagining the former (however vaguely), or describe or indicate the one except by pointing to the other. And the moment you have imagined the line, the relation stands before you in all its completeness, with nothing further to be done. Just so the relation of *direction* between two lines is identical with the peculiar sensation of shape of the space enclosed between them. This is commonly called an angular relation.	how about relations of magnitude, i.e. ratios, of lines etc. v. p. 151.
72. *p. 150* *Rightness and leftness, upness and downness, are again pure sensations* differing specifically from each other, and generically from everything else. Like all sensations, they can only be indicated, not described. If we take a cube and label one side *top*, another *bottom*, a third *front*, and a fourth *back*, there remains no form of words by which we can describe to another person which	Quote?

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) of the remaining sides is *right* and which *left*. We can only point and say *here* is right and *there* is left, just as we should say *this* is red and *that* blue.	
73. *p. 152* And even where we only feel one subdivision to be vaguely larger or less, the mind must pass rapidly between it and the other subdivision, and receive the immediate sensible shock of the more.	Quote
74. *p. 152* *We seem thus to have accounted for all space-relations, and made them clear to our understanding. They are nothing but sensations of particular lines, particular angles, particular forms of transition, or* (in the case of *a distinct more*) *of particular outstanding portions of space after two figures have been superposed.*	<In the left margin:> i.e. lines, angles, etc. are themselves relations, implying relata. <In the right:> The relation between two points e.g. can only be accurately defined by a straight line, which can never be a sensation, or at least only by some regular curve.
75. *p. 152* But inasmuch as all the subdivisions are themselves sensations, and even the feeling of 'more' or 'less' is, where not itself a figure, at least a sensation of transition between two sensations of figure, it follows, for aught we can as yet see to the contrary, that *all spatial knowledge is sensational at bottom*, and that, as the sensations lie together in the unity of consciousness, no new material element whatever comes to them from a supra-sensible source.	? Quote

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
76. *p. 154* And yet the moment we reflect on this answer an insuperable logical difficulty seems to present itself. No single *quale* of sensation can, by itself, amount to a consciousness of *position*. Suppose no feeling but that of a single point ever to be awakened. Could that possibly be the feeling of any special *whereness* or *thereness*? Certainly not. *Only when a second point is felt to arise can the first one acquire a determination of up, down, right or left, and these determinations are all relative to that second point.* Each point, so far as it is *placed, is* then only by virtue of what it is *not*, namely, by virtue of another point. This is as much as to say that position has nothing *intrinsic* about it; and that, although a feeling of absolute bigness may, *a feeling of place cannot, possibly form an immanent element in any single isolated sensation.*	<In the right margin:> Quote this in connexion with axiom of Congruence. <In the left:> But no sensation comes actually in entire isolation. Might it not then be localized relatively to simultaneous sensations? Tho' this would involve, of course, a mental synthesis & a transcending of mere sensation. <The last 2 sentences have a line drawn through them, indicating that Russell deleted them.>
77. *p. 175* Enough has now been said to show that *in the education of spatial discrimination the motions of impressions across sensory surfaces must have been the principal agent* in breaking up our consciousness of the surface into a consciousness of their parts.	may we regard motion as also logically prior to space? I don't see why not.
78. *p. 177* The great agent in comparing the extent felt by one sensory surface with that felt by another, is superposition—superposition of one surface upon another, and superposition of one outer thing upon many surfaces.	this also I believe holds logically as well.
79. *p. 196* But when we say 'projection' we generally have in our mind the notion of a *there* as contrasted with a *here*. What is the *here* when we say that	Important. [Quote]

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) the joint-feeling is *there*? The 'here' seems to be the spot which the mind has chosen for its own post of observation, usually some place within the head, but sometimes within the throat or breast—not a rigorously fixed spot, but a region from any portion of which it may send forth its various acts of attention. Extradition from either of *these* regions is the common law under which we perceive the whereabouts of the north star, of our own voice, of the contact of our teeth with each other, of the tip of our finger, of the point of our cane on the ground, or of a movement of our elbow-joint. But *for distance between the 'here' and the 'there' to be felt, the entire intervening space must be itself an object of perception.*	
80. *p. 213* We may artificially exaggerate this sensation of depth. Rise and look from the hill-top at the distant view; represent yourself as vividly as possible the distance of the uttermost horizon; and then *with inverted head* look at the same. There will be a startling increase in the perspective, a most sensible recession of the maximum distance; and as you raise the head you can actually see the horizon-line again draw near.	<In the left margin:> On this point cf. Mind N.S. No. 11 p. 438.[35] <In the right, but deleted:> this experiment does not prove your point unless colours are unaltered by the inverted head.
81. *p. 215* But suppose, to take a more complicated case, that the object is a stick, seen first in its whole length, and then rotated round one of its ends; let this fixed end be the one near the eye. In this movement the stick's image will grow progressively shorter; its farther end will appear less and less separated laterally from its fixed near end; soon it will be screened by the latter, and then reappear on the opposite side, and finally on	Good

[35] Cited in full in n. 16 above.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) that side resume its original length. Suppose thismovement to become a familiar experience; the mind will presumably react upon it after its usual fashion (which is that of unifying all data which it is in any way possible to unify), and consider it the movement of a constant object rather than the transformation of a fluctuating one. Now, the *sensation of depth* which it receives during the experience is awakened more by the far than by the near end of the object. But how much depth? What shall measure its amount? Why, at the moment the far end is ready to be eclipsed, the difference of its distance from the near end's distance must be judged equal to the stick's whole length; but that length has already been judged equal to a certain optical sensation of breadth. *Thus we find that given amounts of the visual depth-feeling become signs of fixed amounts of the visual breadth-feeling. The measurement of distance is, as Berkeley truly said, a result of suggestion and experience. But visual experience alone is adequate to produce it, and this he erroneously denied.*	
82. *p. 245* <Figure 64.>	In this figure, if looked at for some time continuously, while the eyes converge to a point behind the paper, I find the lines turn suddenly green & red instead of black & white.
83. *pp. 271–2* Really there are but three possible kinds of theory concerning space. Either (1) there is no spatial *quality* of sensation at all, and space is a	cf. Stumpf. (2) here corresponds to Stumpf's II & IV.[36]

[36] Russell refers to Stumpf's four conceptions of space, *Ursprung der Raumvorstellung,*

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) mere symbol of succession; or (2) there is an *extensive quality given* immediately in certain *particular sensations; or, finally, (3) there is a quality produced* out of the inward resources of the mind, to envelop sensations which, as given originally, are not spatial, but which, on being cast into the spatial form, become united and orderly. This last is the Kantian view. Stumpf admirably designates it as the 'psychic stimulus' theory, the crude sensations being considered as goads to the mind to put forth its slumbering power.	
84. *p. 278* It seems to me that Helmholtz's genius moves most securely when it keeps close to particular facts. At any rate, it shows least strong in purely speculative passages, which in the Optics, in spite of many beauties, seem to me fundamentally vacillating and obscure.	Quote?
85. *p. 290n.* In both existential and attributive judgments a synthesis is represented. The syllable *ex* in the word Existence, *da* in the word *Dasein*, express it. 'The candle exists' is equivalent to 'The candle is *over there.*'	cf. Bradley's Logic Chap. II.
86. *p. 311* To do anything is a relief. Accordingly, whatever remedy may be suggested is a spark on inflammable soil.	MIND CURE
87. *p. 322* Those to whom 'God' and 'Duty' are now mere names can make them much more than that, if they make a little sacrifice to them every day.	If they were <u>mere</u> names no one would sacrifice to them.

p. 7.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
88. *p. 333* It <paper> is really *all* that it is: a combustible, a writing surface, a thin thing, a hydrocarbonaceous thing, a thing eight inches one way and ten another, a thing just one furlong east of a certain stone in my neighbour's field, an American thing, etc. etc., *ad infinitum.*	very Hegelian!
89. *pp. 427–8* "The little boy imitates soldiers, models clay into an oven, builds houses, makes a wagon out of chairs, rides on horseback upon a stick, drives nails with the hammer, harnesses his brethren and comrades together and plays the stage-driver, or lets himself be captured as a wild horse by some one else. The girl, on the contrary, plays with her doll, washes and dresses it, strokes it, clasps and kisses it, puts it to bed and tucks it in, sings it a cradle-song, or speaks with it as if it were a living being.... This fact that a sexual difference exists in the play-impulse, that a boy gets more pleasure from a horse and rider and a soldier than from a doll, while with the girl the opposite is the case, is proof that an hereditary connection exists between the perception of certain things (horse, doll, etc.), and the feeling of pleasure, as well as between this latter and the impulse to play."[37]	I believe this difference is mostly conventional & educational.
90. *pp. 432–3* *Secretiveness*, which, although often due to intelligent calculation and the dread of betraying our interests in some more or less definitely foreseen way, is quite as often a blind propensity, serving no useful purpose, and is so stubborn and ineradicable a part of the character as fully to deserve a place among the instincts. Its natural stimuli are unfamiliar human beings,	e.g. in myself it is absolutely blind & instinctive. <It is uncertain whether Russell's comment applies also to the last sentence opposite, but below the comment he

[37] The quotation is from the German psychologist, G. H. Schneider, *Der Menschliche Wille*, p. 205.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) especially those whom we respect. Its reactions are the arrest of whatever we are saying or doing when such strangers draw nigh, coupled often with the pretense that we are not saying or doing that thing, but possibly something different. Often there is added to this a disposition to mendacity when asked to give an account of ourselves.	drew a line against the sentence.>
91. *pp. 439–40* "As soon as a wife becomes a mother her whole thought and feeling, her whole being, is altered. Until then she had only thought of her own well-being, of the satisfaction of her vanity; the whole world appeared made only for her; everything that went on about her was only noticed so far as it had personal reference to herself; she asked of every one that he should appear interested in her, pay her requisite attention, and as far as possible fulfil her wishes. Now, however, the centre of the world is no longer herself, but her child. She does not think of her own hunger, she must first be sure that the child is fed. It is nothing to her that she herself is tired and needs rest, so long as she sees that the child's sleep is disturbed; the moment it stirs she awakes, though far stronger noises fail to arouse her now. She, who formerly could not bear the slightest carelessness of dress, and touched everything with gloves, allows herself to be soiled by the infant, and does not shrink from seizing its clouts with her naked hands. Now, she has the greatest patience with the ugly, piping cry-baby (*Schreihals*), whereas until now every discordant sound, every slightly unpleasant noise, made her nervous. Every limb of the still hideous little being appears to her beautiful, every movement fills her with delight. She has, in one word, transferred her entire egoism to the child, and lives only in it. Thus, at least, it is all unspoiled,	Vastly German!

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) naturally-bred mothers, who, alas! seem to be growing rarer; and thus it is with all the higher animal-mothers."[38]	
92. *p. 449* My theory, on the contrary, is that *the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur* IS *the emotion.*	This involves the same materialistic tendency so often shewn before in James. Surely for psychology such an explanation is inadequate.
93. *p. 451* It is true that, although most people when asked say that their introspection verifies this statement, some persist in saying theirs does not.	mine emphatically does not. I am often acutely amused in reading e.g. without a smile.
94. *p. 452* What kind of an emotion of fear would be left if the feeling neither of quickened heart-beats nor of shallow breathing, neither of trembling lips nor of weakened limbs, neither of goose-flesh nor of visceral stirrings, were present, it is quite impossible for me to think. Can one fancy the state of rage and picture no ebullition in the chest, no flushing of the face, no dilatation of the nostrils, no clenching of the teeth, no impulse to vigorous action, but in their stead limp muscles, calm breathing, and a placid face? The present writer, for one, certainly cannot. The rage is as completely evaporated as the sensation of its so-called manifestations, and the only thing that can possibly be supposed to take its place is some cold-blooded and dispassionate judicial sentence, confined entirely to the intellectual realm, to the effect that a certain person	Of course there may be internal bodily changes which necessarily accompany emotions, but of conscious or external ones I can find no trace in myself.

[38] From G. H. Schneider, *Der Menschliche Wille.*

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) or persons merit chastisement for their sins. In like manner of grief....	
95. *p. 455* We have, as Professor Lange says, absolutely no immediate criteria by which to distinguish between spiritual and corporeal feelings; and I may add, the more we sharpen our introspection, the more *localized* all our qualities of feeling become (see above, Vol. I. p. 300) and the more difficult the discrimination consequently grows.	A corporeal feeling is <u>not</u> material nor itself a physical process.
96. *p. 472* Very little emotion here! <in scientific and philosophical work>—except the effort of setting the attention fine, and the feeling of ease and relief (mainly in the breathing apparatus) when the inconsistencies are overcome and the thoughts run smoothly for a while.	I have often found myself panting on getting a solution of a difficulty.
97. *p. 482* It seems as if even the changes of blood-pressure and heart-beat during emotional excitement might, instead of being teleologically determined, prove to be purely mechanical or physiological outpourings through the easiest drainage-channels—the pneumogastrics and sympathetic nerves happening under ordinary circumstances to be such channels.	But whatever is teleologically explained <u>must</u> have <u>also</u> a mechanical explanation: the teleological is not ultimate or complete.
98. *p. 492* Normally it is the remoter sensations which we receive by the ear which keep us from going astray in our speech. The phenomena of aphasia show this to be the usual case.	So does the fact that many people if they speak with their ears stopped speak very loud.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
99. *p. 524* If I may generalize from my own experience, we more often than not get up without any struggle or decision at all. We suddenly find that we *have* got up. A fortunate lapse of consciousness occurs; we forget both the warmth and the cold; we fall into some revery connected with the day's life, in the course of which the idea flashes across us, "Hollo! I must lie here no longer"—an idea which at that lucky instant awakens no contradictory or paralyzing suggestions, and consequently produces immediately its appropriate motor effects.	With me the hesitation usually ends by a vehement resolve & a sudden leap before I have time to repent.
100. *p. 526* We may then lay it down for certain that *every representation of a movement awakens in some degree the actual movement which is its object; and awakens it in a maximum degree whenever it is not kept from doing so by an antagonistic representation present simultaneously to the mind.* The express fiat, or act of mental consent to the movement, comes in when the neutralization of the antagonistic and inhibitory idea is required.	Presentationism, corrected in next sentence <i.e. the second one opposite>
101. *p. 528* The result is that peculiar feeling of inward unrest known as *indecision.* Fortunately it is too familiar to need description, for to describe it would be impossible.	Hobbes has described it well.[39]
102. *p. 548* If in general we class all springs of action as propensities on the one hand and ideals on the other, the sensualist never says of his behaviour	But there are passions as abstract as the desire for virtue—cf Satan's

[39] *Leviathan*, Pt. I, Chap. 11, on "irresolution".

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) that it results from a victory over his ideals, but the moralist always speaks of his as a victory over his propensities.	"unconquerable will"[40] which was exercised along the lines of greatest resistance & was yet immoral. Such cases constitute a whole class of noble sinners, whom one instinctively admires.
103. *p. 549* The ideal impulse appears, in comparison with this, a still small voice which must be artificially reinforced to prevail. Effort is what reinforces it, making things seem as if, while the force of propensity were essentially a fixed quantity, the ideal force might be of various amount. But what determines the amount of the effort when, by its aid, an ideal motive becomes victorious over a great sensual resistance? The very greatness of the resistance itself. If the sensual propensity is small, the effort is small. The latter is *made great* by the presence of a great antagonist to overcome. And if a brief definition of ideal or moral action were required, none could be given which would better fit the appearances than this: *It is action in the line of the greatest resistance.*	No!
104. *p. 552n.* <Bain's explanation of sociability and parental love by the pleasures of touch:> "It seems to me that there must be at the foundation that intense pleasure in the embrace of the young which we find to characterize the parental feeling throughout."	Poor fool!

[40] Milton, *Paradise Lost*, Bk. 1, l. 106.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
105. *p. 555* *Sympathy* "has this in common with the Fixed Idea, that it clashes with the regular outgoings of the will in favour of our pleasures."[41]	What a give-away for Bain!
106. *p. 564* Consent to the idea's undivided presence, this is effort's sole achievement. Its only function is to get this feeling of consent into the mind. And for this there is but one way. The idea to be consented to must be kept from flickering and going out. It must be held steadily before the mind until it *fills* the mind.	This shews the connection between Belief and Volition, & of Both with Passion.
107. *p. 573* It is a *moral* postulate about the Universe, the postulate that *what ought to be can be, and that bad acts cannot be fated, but that good ones must be possible in their place*, which would lead one to espouse the contrary view.	but the Badness of the universe depends on the occurrence of the bad acts—if they occur, it is poor consolation that it might have been otherwise.
108. *p. 606* <Under hypnosis> objects which he takes from his pocket are not seen, etc. Objects which he screens are seen as if he were transparent.	?
109. *p. 607* Another experiment proves that he must *distinguish* it first in order thus to ignore it.	This was told before, in Vol. I.
110. *p. 608* Obviously, then, he is not blind to the *kind* of stroke in the least. He is blind only to one individual stroke of that kind in a particular position on the board or paper,—that is, to a particular complex object; and, paradoxical as it may seem to say so, he must distinguish it with	Emotional beliefs in waking life surely often proceed by a similar ignoring requiring previous apperception. (v. inf.)

[41] The quotation is from Alexander Bain's *The Emotions and the Will*, 3rd ed. (London: Longmans, 1880), p. 121.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) great accuracy from others like it, in order to remain blind to it when the others are brought near. He 'apperceives' it, as a preliminary to not seeing it at all! How to conceive of this state of mind is not easy. It would be much simpler tounderstand the process, if adding new strokes made the first one visible. There would then be two different objects apperceived as totals,—paper without stroke, paper with two strokes; and, blind to the former, he would see all that was *in* the latter, because he would have apperceived it as a different total in the first instance.	
111. *pp. 612–13* As so often happens, a fact is denied until a welcome interpretation comes with it. Then it is admitted readily enough; and evidence judged quite insufficient to back a claim, so long as the church had an interest in making it, proves to be quite sufficient for modern scientific enlightenment, the moment it appears that a reputed saint can thereby be classed as 'a case of hystero-epilepsy.'	quite rightly too—à priori probability has to be weighed as well as evidence.
112. *pp. 617–18* I shall try in the course of the chapter to make plain three things: 1. That, taking the word experience as it is universally understood, the experience of the race can no more account for our necessary or *a priori* judgments than the experience of the individual can....	not logically i.e., there is no denial of such a psychological explanation necessarily involved—i.e. knowledge may be elicited, tho' not created, by experience.
113. *p. 644* *I shall now in what follows call all propositions which express time- and space-relations empirical propositions; and I shall give the name of rational propositions to all propositions which express the results of a comparison.*	But time and space relations involve a relating consciousness, a mental synthesis—why otherwise should there

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.)	not be complete disparateness between the things related? Mere sense-impressions succeeding each other would give an idea of time or succession—this involves memory & therefore ideation.
114. *p. 652* But our world is no such world <in which all things are of different kinds>.	? I should have thought our sensible world was, strictly, of both these kinds, & that it was only logical necessity that made us think it otherwise
115. *p. 656* *Sensibly*, however, things are constantly changing their numbers, just as they are changing their kinds.	v. p. 652.
116. *p. 657* Three of them <axioms> give marks of identity among straight lines, planes, and parallels. Straight lines which have two points, planes which have three points, parallels to a given line which have one point, in common, coalesce throughout. Some say that the certainty of our belief in these axioms is due to repeated experiences of their truth; others that it is due to an intuitive acquaintance with the properties of space.	Geometrical axioms.
117. *p. 658* ... and assuming a new relation means ceasing to be straight or plane. If we mean by a parallel a line that will never meet a second line; and if we have one such line drawn through a point, any new line drawn through that point which does	This is fearfully shallow.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) not coalesce with the first must be inclined to it, and if inclined to it must approach the second, i.e., cease to be parallel with it.	
118. *p. 658* A geometry as absolutely certain as ours could be invented on the supposition of such a space, if the laws of its warping and deformation were fixed.	No!
119. *p. 659*	<Opposite the conclusion of this section of the chapter:> This discussion of Geometrical axioms is worthless.
120. *p. 664* Locke accordingly distinguishes between 'mental truth' and 'real truth.'* The former is intuitively certain; the latter dependent on experience. Only *hypothetically* can we affirm intuitive truths of real things—by *supposing*, namely, that real things exist which correspond exactly with the ideal subjects of the intuitive propositions.	This is really Kant's position too.
121. *p. 664* The eternal verities which the very structure of our mind lays hold of do not necessarily themselves lay hold on extra-mental being, nor have they, as Kant pretended later,* a legislating character even for all possible experience.	?
122. *p. 668* The subjective interest leading to the assumption could not be more candidly expressed. What makes the assumption 'scientific' and not merely poetic, what makes a Helmholtz and his kin *discoverers*, is that the things of Nature turn out to act as if they *were* of the kind assumed. They behave as such mere drawing and driving	In this chance coincidence of logical requirements with fact which James is always coming back to, the need of a metaphysic is very glaring.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) atoms would behave; and so far as they have been distinctly enough translated into molecular terms to test the point, so far a certain fantastically ideal object, namely, the mathematical sum containing their mutual distances and velocities, is found to be constant throughout all their movements.	
123. *p. 670* Such principles as these <metaphysical and aesthetic axioms>, which might be multiplied to satiety, are properly to be called *postulates of rationality*, not propositions of fact.	But so was Helmholtz's postulate above
124. *pp. 670–1* It is not that these more metaphysical postulates of rationality are absolutely barren—though barren enough they were when used, as the scholastics used them, as immediate propositions of fact.* They have a fertility as ideals, and keep us uneasy and striving always to recast the world of sense until its lines become more congruent with theirs. Take for example the principle that 'nothing can happen without a cause.'	cf Kant
125. *p. 672* The *moral* principles which our mental structure engenders are quite as little explicable *in toto* by habitual experiences having bred inner cohesions. Rightness is not *mere* usualness, wrongness not *mere* oddity, however numerous the facts which might be invoked to prove such identity. Nor are the moral judgments those most invariably and emphatically impressed on us by public opinion. The most characteristically and peculiarly moral judgments that a man is ever called on to make are in unprecedented cases and lonely emergencies, where no popular rhetorical maxims can avail, and the hidden oracle alone can speak; and it speaks often in	In short experienced morality is a logical contradiction since a moral <"moral" over deleted "logical"> judgment is not a judgment about fact.

PASSAGE IN *Psychology* (+ BR'S UNDERLINING)	MARGINALIUM
(cont.) favour of conduct quite unusual, and suicidal as far as gaining popular approbation goes.	
126. *p. 676* Our consciousness of these <logical and mathematical> relations, no doubt, has a natural genesis. But it is to be sought rather in the inner forces which have made the brain grow, than in any mere paths of 'frequent' association which outer stimuli may have ploughed in that organ.	but such modifications have been preserved by natural selection.