

It is rather Prof. James who has not "seen very deeply into the doctrine". The last paragraph of § 73 should justify my statement. See also Part iv. ('Special Analysis') throughout, on the varieties of our numerous feelings of relation. Need I do more than ask what is suggested, say, by Mr. Spencer's description of the perception of softness as "the establishment in consciousness of a relation of simultaneity between three series of sensations—a series of increasing sensations of pressure; a series of increasing sensations of tension; and a series of sensations of motion"? Do we find here suggested that Mr. Spencer regards "our feelings of relation" as of only four kinds? Or is it suggested by the statement that "the term Perception is applied to mental states infinitely varied, and even widely different in their natures";—or that "a perception may vary indefinitely in complexity, in degree of directness and in degree of continuity";—or that "in all their various kinds and compounds, what we call relations can be to us nothing more than the modes in which we are affected by bringing together sensations or remembered sensations or both: hence what we have next to do is, first to resolve the special kinds of relations into more general kinds, ending with the primordial kinds; and then to ascertain what are the ultimate phenomena of consciousness which these primordial kinds express"?

Analysis brings us evidently down to the single primordial relation which is a *change* in consciousness, one aspect of which is the relation of unlikeness and the other aspect a relation of sequence.

---

#### MR. F. H. BRADLEY ON FACT AND INFERENCE.

By B. BOSANQUET.

I thought that if there was one doctrine that European philosophy had fairly made its own, it was that of the inferential character of fact. According to Mr. Bradley (*Principles of Logic* p. 74), "Events past and future, and all things not perceived, exist *for us* only as ideal constructions connected, by an inference through identity of quality, with the real that appears in present perception". Here we have a clear, though in one point it seems to me an inadequate, statement of the doctrine which I understand to be the basis of modern European thought, and to be in a peculiar sense the inheritance of the English experiential school. Whatever other opinions an English writer may hold, he has seldom from the time of Locke failed to lay stress on the relativity of knowledge, and on the inaccessibility of fact to immediate cognition. Mill in his "Psychological Theories of the External World and of Mind" has pushed this view into extremes. I was therefore unprepared to find, in so advanced a writer as Mr. Bradley, the artificial or manufactured character of fact con-

stantly treated as in need of establishment by controversy, and sometimes ignored.

The point of inadequacy to which I referred lies in the exception indicated by the phrase "all things not perceived". I should have preferred, "all things whether perceived or not". The attitude which Mr. Bradley betrays here, and adopts elsewhere, towards this which I understand to be his own doctrine, is the curious subject to which I wish in the first place to draw attention. I can only explain such an attitude on one hypothesis: *viz.*, that, while formally adopted for the sake of irony and in order to reduce his opponents, whose genuine attitude it is, to an absurdity, it is really the expression of an influence which has qualified Mr. Bradley's conceptions more seriously than he appears to apprehend. To go thoroughly into the question would require an elaborate review of Mr. Bradley's *Principles of Logic*. I shall only try to state my meaning shortly, and illustrate it by touching on a few salient points.

I understand the limitation "things not perceived," in the passage quoted above, to imply strongly that the "real that appears in present perception" has not the character of an ideal construction. The passage of course might be interpreted otherwise, but I believe the intention to be what I have indicated. For, as one of many instances, I may compare p. 365 where "a fact merely got by simple perception" appears to be equivalent to "a fact of sense" and opposed to a "judgment". It is in accordance with the point of view so revealed, that Mr. Bradley's entire account of the Judgment and of Inference in their relation to Fact is given from a standpoint only befitting "the unfortunate holder to sensuous reality" (p. 492). Thus, as we arrive at any definite knowledge, we are torn away from reality; and I at least am unable to decide whether the bitter words ("mutilation," "garbled extract," "not the facts") which are hurled at scientific truth, are ascribed with savage irony to the supposed believer in sense-presentation as the only fact, or come at times sincerely from the author's heart. My difficulty may arise solely from my own dulness; but it is not impossible that others may share it.

I need not collect the indications of a quasi-sceptical mood which are scattered throughout the treatise. They are hardly matter of argument. It is enough to refer emphatically to pp. 532-3, which certainly might be taken to show that the author has modelled his ultimate idea of the relation between knowledge and reality on that of the above-mentioned "unfortunate". How else could he contrast the "sensuous curtain" with the "unearthly ballet of bloodless categories" and the "movement of our intellect's content" with the "senses' abundance," as if we should ever propose to isolate one of these elements, and worship it as reality? Is the substantial and coherent structure of the world, as seen by the soul that looks through the eye, to pass

for no more than a "sensuous curtain"? After the masterly account of Causation about fifty pages before, one is startled at words which appear to suggest the conceivability that a category, say causation, might divest itself of reality, and go about like a ghost on its own account. I may add that this account of causation as "implying a connexion which cannot be presented" does not bear out the censure of p. 195 on the conception of cause as the sum of the conditions. Condition is condition, as cause is cause, for us by ideal connexion; condition is distinguishable from cause exactly as much as cause is distinguishable from effect, and for the same reasons. If we forbid ideal isolation, abstraction from relations which are presupposed, we are back again where the Eristics were in Plato's time, and will say nothing because we cannot say all. If it is not a fact that arsenic is poison, I really do not know what a fact is, and am tempted to say that I do not care. But if it is a fact, then a condition is a fact. Of course the reality which we treat as a condition is seen in a certain ideal light; is, if we like to say so, known as the antecedent of a hypothetical judgment. But so, as Mr. Bradley trenchantly demonstrates on p. 486, must the reality be seen which is to count as a cause. And so, I should add, must every reality be, of which in any context whatever anything is to be said or known. These considerations would to my mind have an important bearing on Mr. Bradley's treatment of the Method of Difference. He seems to demand that to prove causation we should succeed in actually isolating the suspected cause; but actual isolation is impossible; there is no such thing. To attempt it is simply to bring about a new and unknown combination. All isolation is *ideal*, *i.e.*, for knowledge; a mere distinction between relevant and irrelevant; and it is the making of this distinction that the Method of Difference expresses.

I will now point out some awkwardnesses which seem to result from the assumption of a standpoint which is too paradoxical to be carried through; and which yet affects the author's general views with a sort of yearning after a solid  $\pi\omicron\upsilon\sigma\tau\omega$ . I mean the assumption that fact cannot be given in universal or perfectly definite propositions: "The moment you have reduced your particular fact to a perfectly definite set of elements, existing in relations which are accurately known, then you have left the fact behind you" (p. 335). Starting from such a conception as this, it is obvious that as we get towards the world of science we get away from the facts; and it is not surprising that as we approach truth we recede from reality.

In presence of such a conception it was surely vain to haggle about the categorical judgment. If nothing which thought has defined can be a fact, we may say at once that no judgment can be categorical.

The "analytic judgment of sense" can at best be distin-

guished from the "synthetic judgment of sense" only in the most fugitive way; and for the present purpose the distinction could never hope to stand. The discussion whether it may be taken as categorical seems to me wholly inconsistent with Mr. Bradley's assumed point of view.

I find a strong special case of this difficulty in the temporary concession that there may be a collective judgment, a form of the singular judgment, which may be taken to be categorical in virtue of referring to "a real collection of actual cases," apparently an equivalent phrase to "the existing cases" (pp. 82-3). But existing cases which are not perceived are surely as a matter of knowledge in exactly the same position with past or future cases: they are known in the same way, and are subjects of the same kind of predication. The cases existing in present time afford no tenable limit in such a discussion as this. They are less than we can construct by inference, and more than we can perceive directly. If we go to construction at all, we cannot omit past and future; and I do not believe the natural meaning of a judgment ever does so, except when time enters into the content.

Mr. Bradley has indeed disclaimed the fiction of the "atomic now" (pp. 50-3), and has propounded an interesting view of the connexion between reality and "presence"; partly, I think, founded on a doctrine of Lotze's.<sup>1</sup> I accept this view, but remark on it (a) that it allows and requires you to charge your perception of presented reality to an indefinite extent with matter belonging to past and future (your present is, in fact, the "logical" present, as illustrated by the old explanation of Virgil's "*Cratera antiquum, quem dat Sidonia Dido*"—"the gift of Dido"); and (b) even when you have so charged it, you have not any reality till you have all, and that you never have. Between the "atomic now" and the whole of knowledge I see no resting place; the logical present is capable of taking in all.<sup>2</sup>

Still more serious than the admission of a collective judgment is the false impression conveyed by arguing that the hypothetical judgment cannot be reduced to a categorical one. Naturally, if there is no categorical judgment to reduce it to! Why not tell us at once that the essential purpose of such a reduction, so far from being denied, is the main contention of the treatise; that the categorical and hypothetical *forms* signify no essential difference, and that in those characters which are of value for knowledge (omitting all reference to the ill-used terms 'fact' and 'reality') the ordinary universal categorical, and the hypothetical judgment, are one and the same? Instead of reducing the hypothetical to the categorical, Mr. Bradley reduces the cate-

<sup>1</sup> *Metaphysik*, § 150.

<sup>2</sup> Mr. Bradley may in fact be held to be pointing this out in his interpretation of the Law of Identity, p. 133.

gorical to the hypothetical. I can see, apart from his assumed standpoint, no importance whatever in the change.

But I venture to suspect that in his mind this reversal has an import, and a fictitious one. Mr. Bradley is especially keen in pointing out that the hypothetical and disjunctive judgments cannot possibly predicate fact. Now, if we are to stand by the author's starting-point, I should not much care whether they do or not; for in the sense thus assumed, I should not say that 'There is an omnibus' expressed a fact. But in the case of the explicit hypothetical and explicit disjunctive I gather that there is a further and special ground. "What is affirmed (in hypothetical judgment) is not the actual existing behaviour of the real, but a latent quality of its disposition" (p. 87). And so with the disjunctive "'A is B or C'; but this mode of speech cannot possibly answer to real fact. No real fact can be 'either—or'. It is both or one, and between the two there is nothing actual" (p. 122). Here we are criticising the judgment from a more advanced basis. We are not merely saying that it defines by omission and selection within the sensuous environment, and therefore being partial does not represent fact. We are saying, I suppose, that when it alleges a connexion between elements one or all of which may not now exist, or an alternative between elements which cannot both exist at the same time in the relation suggested, then a judgment cannot represent fact. What conception of fact have we got here? Is it = what exists in the vanishing "now"?<sup>1</sup> This is more than sensuous perception, but less, I should imagine, than the "ultimate non-phenomenal fact" (p. 180); less also, surely, than the reality which = presentation by contact, of p. 503; a fact which is real in this latter sense most certainly can be 'either—or,' for it may change within the presentation, and the *is* includes the whole presentation.

The conception of fact according to which the hypothetical and disjunctive judgments are incapable of stating fact, is the same according to which it was alleged that the collective judgments as dealing with 'existing cases,' did state fact. I will try to illustrate my objection to it in this way. Mr. Bradley ingeniously elicits the categorical elements which underlie, as he thinks, the hypothetical and the disjunctive judgments respectively. These elements are qualities which form the basis of the supposals

<sup>1</sup> Sigwart, *Logik*, p. 253, speaking of such judgments as "Der Mensch kann wachen und schlafen," says that if "auf einen und denselben beliebigen Zeitpunkt bezogen," they become disjunctive, "Der Mensch schläft oder wacht". But this equivalence is enough to show that the *judgment* remains universal in point of time; it is only the *exclusion* which infers to a single moment in time. It is not that you fix a point of time and infer the judgment to that (or if you do so, rhetorically, you say so; e.g., 'Now, as always, your character is either improving or deteriorating'); you judge universally that at any and every point of time a certain feature *via*, the exclusion, holds good.

expressed in these two types of judgment. Why are they more "categorical" than the consequents of the "supposals"? I can only imagine it to be because they are conceived as permanent, and therefore as capable of being predicated as in present time, which the consequents of the supposals are not. And then there is no obstacle to taking the present existence of the subject (present in time) as implied in the judgment. But this was an indication of being categorical in the case of the collective judgment, and is so too in the case of the disjunctive (p. 122). I suppose that the subject<sup>1</sup> of the quality implied is to be taken as existing in present time in the case of the hypothetical also.

I have said that I do not see how the assertion of the present existence of the subject makes a judgment categorical. I also do not think that any judgments imply the existence of their subjects except those which say something that depends on time-relations. Unless, therefore, we are to identify categorical judgments with those common statements of passing events to which time makes a difference, I do not think that implying the existence of the subject in present time is here or there in the question of categorical character.

And surely, if the predication of a supposal as to future time is to make a judgment other than categorical, no judgment which asserts a quality will stand. We never confine a quality to the present in asserting it; we hardly ever inquire if its condition, *e.g.*, the light which is essential to colour, exists at the moment we predicate. Before I say, 'My wall paper is green,' I do not stop to think whether my room is just now dark. My present assertion is in fact based on the hypothetical judgment that if it is light, green colour is visible on the wall. The latter is the datum, the former the inference. As to the disjunctive judgment, I can see why a thing should not be both at once of two reciprocally exclusive predicates, but why it should not be 'either—or,' especially if we take the present as having duration (for the *exclusion* must still be tested by simultaneity, so we shall not get 'both') I cannot understand. It appears to me that most precisely defined attributes are abbreviated disjunctions; they have disjunctions for their content. To reduce disjunctions, or hypothetical judgments, to something present and continuous, may have a metaphysical justification in some law of continuity; but the facts which they represent do not bear this on their face, and I gather that Mr. Bradley does not hold continuity to be essential to identity. 'Gold is yellow' means 'If

<sup>1</sup> Pp. 87-8. But this subject need not be the subject which appears in the judgment at all. The ground of the hypothetical is asserted of reality. But this seems to leave the whole specific assertion to be made by the hypothetical judgment. In other words, is not the phrase "Reality is such that—&c." implied in the act of judging at all?

gold is exposed to white light before a seeing eye it will look yellow'. Mr. Bradley may say, we conclude to some permanent surface quality, and this is real yellow. And this, no doubt, may be a justifiable inference; but if continuity is not essential to identity (p. 269), I do not know that it is a necessary one. And it is not the same thing as what we naturally mean and intend, namely, to predicate of gold, in terms to which time is indifferent, that whenever it is seen in the light it looks yellow. We employ the logical present, and I do not see that the possible discontinuity of the manifestation of colour at all impairs our right to do so, if the extension of our judgment beyond the vanishing moment of the present does not, as we are agreed that it does not. The only thing that would impair our right to a categorical present in such a case, would be the fact that time made a difference to the content; and in this case I presume that it does not. I will take a stronger instance: 'That tree is 30 feet high'. The meaning of this judgment is chiefly made up of hypotheticals and disjunctives. It is improbable that the tree has been measured with a yard-measure, and if it had, the judgment of its height would be borrowed from the past. But more probably we mean that if it were measured with a yard-measure it would be found 30 feet high; or more strictly, we mean what we say—in that case, a somewhat bold *inference*—that the tree has a height of 30 feet, discarding the idea of whatever means we may have taken to arrive at a knowledge of the height. But further: the judgment of size, like all such judgments, undoubtedly represents a disjunction; so far from being surprised when the same object covers a small place in the field of vision at a distance, and a larger one when near, we should think our perception contradictory if it were not so. The judgment of size includes a disjunction of the appearances which the object of the alleged size will present at different distances. If this were not so, our judgment of size would alter, or if too well established to alter, would seem contradicted by perception, as we altered our distance from the object. We include, in stating the size of an object, the fact that it may subtend very various visual angles, can subtend only one at a time, and must subtend that which its distance and its size taken together require. And if a disjunction is not categorical, I do not see how such a predication as this can be categorical.

You may indeed have a hypothetical judgment which has for its main object to illustrate a quality. I take an extreme case from Allman's *Polyzoa*, p. 14: "If these setæ (the setæ of *Bowerbankia*) were reduced in number to four, &c., &c., they would at once be converted into the ribs of *Paludicella*". I do not think there is any intention here of designating an actual course of evolution; the sentence merely indicates a construction which the reader is to make for himself, in order to accentuate certain points of analogy in the structure of the *Polyzoa* in ques-



tion. In this case it happens that a quality, or rather group of relations condensed into attributes, is conceived of as permanent, and then a certain mode of looking at it is prescribed in order to bring out its features most sharply. This is an accidental and to a certain extent abusive employment of the hypothetical judgment, which we often indicate by saying, 'Try and imagine,' — 'If of course it is impossible—,' and the like. It is far more natural that the hypothesis should explicitly allege the pure case we have in our knowledge, and that any reference of this to a permanent quality should be an extraneous and metaphysical conclusion. I may add that the non-existence of *Bowerbankia* at the present moment would, as Mr Bradley claims, make no difference to the truth of the hypothetical judgment, nor, as I should say, to any judgment, even if categorical or disjunctive in form, into the content of which time does not enter; but its non-existence in the field of knowledge, or its incompatibility with the elements which the judgment connects with it, would turn the judgment into nonsense or make it false. Mr Bradley admits (p. 219)<sup>1</sup> that abstraction and impossibility are not the same thing; therefore we can take hypotheticals as expressing fact, without accepting the consequents of impossibilities.<sup>2</sup> And I subjoin, all thought is hypothetical *quâ* abstract, even sensuous perception. Thus I see no sort of use in trying to get at fact as something non-hypothetical, or in trying to find a class of judgments which imply the existence of their subjects in the moment of predication, with the exception of those in the content of which time plays an essential part: and the required class, if found, would still *not be* categorical, if a universal judgment is not categorical.

These considerations lead me to doubt whether Mr Bradley's censure on Mill's account of "conditional propositions" is justified. The substance of the censure is "*either categorical, or conditioned by a supposition*". I deny the exclusiveness of the disjunction, and cannot understand how, in the face of his own analysis of the ordinary categorical judgment, Mr Bradley can maintain it. In the most *outré* sense he even admits no categorical judgment to exist at all. I put out of sight the judgments with non-phenomenal subjects, as Mr. Bradley does not insist on these. I should have thought all judgment passed by degrees into this class.

Surely the English realist of Mill's type has the better here. He takes the explicit statement of a connexion of content for a definite assertion, and not less but more definite because the condition, which all assertion involves, is here made visible and explicit. It is surely beside the mark to ask whether Mill's "inferribility" means the fact of having been inferred, or the possibility of being inferred. In saying that the one judgment

<sup>1</sup> Contrast p. 190. <sup>2</sup> Contrast p. 186.



is inferrible from the other, he implies, as a formal condition, the forum before which fact is fact; *i.e.*, a rational mind *quâ* rational. True, this is formally a condition, just as it is a formal condition of 'Buttercups are yellow' that there should be light to see them by, and living eyes to look at them, and of every statement that the world should exist and continue, or, one is almost driven to say, that the statement should be true; I mean, that the world should go on as it does, at least so far as not to interfere with the statement. But these formal conditions surely cannot invalidate the claim of the statements concerned to rank as facts.

I turn to another side of the same question. I, as I expect to find all fact to bear the marks of inference, should be surprised if inference were not an inseparable element in all judgment. Mr Bradley's treatment of judgment in relation to inference is most instructive, but leaves, as I read him, one important point open, which I connect again with his assumed conception of fact as the datum of sense. "All judgment," he says, on p. 406, "is not inference, if *mere* judgment claims a position as inference". And in the same place he speaks of "the arbitrary synthesis of a suggestion with reality". I gather from p. 405 that mere judgment, or an arbitrary synthesis, may be owing to such a source as the testimony received from others, or as the prominent suggestions of our own senses. Now, I do not understand what is meant by a "mere" judgment, or "arbitrary" synthesis. "Judgment is our act" (p. 439), and "if compelled" (*ib.*), is yet compelled by a ground. The simplest case is that which Mr Bradley instances—our acceptance of the testimony of others. Surely this, as we re-think it, is never a simple reproduction of the content of the testimony: at the very least it is classified on the ground of something in its content and of our knowledge bearing on the matter, as "not incredible"; or in some such way the ground of acceptance is embodied in the content of the judgment.

Thus, "mere" judgment, arbitrary synthesis of suggestion with reality, are terms which to my mind convey no meaning. And the particular point, in reference to Mr Bradley's own view, which his account of the relation between judgment and inference appears to me to leave open, is this:—may I while fully admitting "that explicit judgment comes before explicit inference" (p. 441), nevertheless identify the act of judgment with inference of that class which has "an implicit centre, unavowed but active?" This is what I should like to do. But I am not sure whether inference of this class—comparison, distinction, recognition and the like—having an unavowed centre, are to come under the head of explicit inference (p. 441) or not. I should be fairly content to take these "inferences" as judgments in as far as the centre is not expressly avowed, but as partaking

of the character of inference in as far as it is operative or partially distinguished in thought; not holding the two characters of judgment and inference to exclude each other, but both to be concurrent from the beginning. The judgments of perception, for instance, would thus be distributed under the heads of recognition, comparison, distinction, abstraction. I say 'concurrent from the beginning'; for I do not think that a centre which is active is ever wholly and absolutely unavowed, though we should often be puzzled to give it a name before the inference had assumed a perfectly explicit form, and so passed, as I admit, beyond the type of ordinary judgment.

The mention of a mere judgment, however, makes me doubt whether by this interpretation I should meet Mr Bradley's views. I fear that he has in his mind a lower deep of judgments made as true, but absolutely without consciousness of dependence on a ground; without any feeling whatever even of an implicit centre of formation. I do not seem to find such judgments in my own mind. I do not believe that the "suggestions of sense" to a human mind are pure suggestions of sense. The orderly world which we see is already organised by the judging faculty. I am sure, too, that I cannot re-think what I am told by simple repetition and acceptance.

But I have said enough to indicate my point of view, and can do no good by insisting further on commonplaces which Mr. Bradley must of course have neglected wilfully and for reasons which seem to him sufficient. I will merely add as a corollary—that *of course* I find the same pernicious influence of "common sense" and popular realism in Mr. Bradley's acceptance of Sigwart's teaching that "all mediate certainty must stand in the end on immediate knowledge; the ultimate premises of proof cannot be proved". I did think that all this was behind us; that we now understood knowledge to be a system of such a character that A and B prove each other when put together, though neither is certain when isolated; neither, therefore, as knowledge, is immediate or ultimate.

In conclusion, I would remark that Mr. Bradley's main contention as to the place of subsumption in inference and the true nature of the inferential function appears to me to be made out. This achievement alone (and it by no means stands alone) would suffice to give his work a prominent place among the best logical treatises.