

It must not be supposed that the approximation of the reaction-times means a complete merging of one form in the other. Not only do the mean variations show a real difference, but also the unanimous verdict of the subjects is, that under practice the differentiation of the sensory and motor forms is increasingly clear and easy, the varying direction of attention being perfectly unmistakable, however ambiguous it may have been at the outset. As the various coördinations involved approach completeness and perfection, it becomes more and more a matter of indifference where the attention is directed. The environment is probably never so fixed and unchanging—to say nothing of the organism itself—that the coördinations in response to it are not capable of being slightly bettered by the presence of attention, otherwise the whole process would ultimately become automatic and essentially unconscious. The changing situation, both without and within, alone prevents such an outcome. At all events, this appears to be the case so far as concerns those particular coördinations involved in the reaction experiment.

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THE 'TRANS-SUBJECTIVE' AS PSYCHOLOGICAL FACT.

Truth, even when unpopular or unrecognized, is still truth. The occasion for this remark will, it is hoped, be apparent as we go on.

No work published hitherto has, to my knowledge, made the thorough-going attempt, presented in Professor Ladd's recently published 'Philosophy of Knowledge,' to develop a theory of cognition based on the renewed assertion and defence of a neglected and even denied postulate. That truth is the so-called implication of the trans-subjective reference in every genuine act of complete knowledge. The purpose of the author, announced in the preface, 'to make epistemology vital,' must, of course, depend for its success or failure, as has been foreseen, not only on the brilliant and sometimes startling insights, the connected and calm current of the thought, the over-flowing earnestness of conviction, apparent on each page, but also, if not chiefly, upon the validity of that realistic view of consciousness which makes every completed act of cognition 'take hold' of the trans-subjective.

In his apparently hasty review of this, in the sense above defined,

'pioneer' work, which appeared in the pages of this REVIEW,¹ I was pained to find that Dr. Miller had gone out of his way to cast a sneer at the author for announcing his claim to the position of 'clearer of obstacles.' Whether Professor Ladd is guilty of the set of feelings attributed to him, among which may be mentioned literary injustice and 'critical acerbity,' must be left to his readers to decide; for my own part, I can discover not the slightest trace of them. But passing this over, we come to a more remarkable feature of this review, *i. e.*, Dr. Miller's assertion² that Professor Ladd has nothing but 'asseverations' for his claim that knowledge, as a complex psychological fact, involves the trans-subjective. Dr. Miller goes so far as to declare: "The phenomenist might simply deny the alleged trans-subjective intention, the implication of the 'transcendent' in knowledge—as the present writer at all events does deny it—might declare that there is no such psychological fact; and Dr. Ladd could have nothing for it but asseverations." It is remarkable enough that this crude kind of phenomenalism should satisfy Dr. Miller; but it is astonishing indeed that he should also try thus to plant Professor Ladd in the same position; for the last description perhaps that could be applied to 'The Philosophy of Knowledge,' as that work implicates this disputed postulate, is the one employed by Dr. Miller for that book.

Dr. Miller appeals to facts; to facts, then, let us go. Is the trans-subjective a psychological fact? a datum of cognition? is this implication an unmeaning and illogical creation of the medievalists? a postulate having no ontological validity? These are some of the questions suggested for reflection in this connection. Or, more briefly and positively, we may ask, Does human knowledge, psychologically viewed, envisage not only an activity of the self, but also a conviction of extra-mental reality, the type of which may be found in self-consciousness? In answer to these questions I will briefly present three instances or cases where our ordinary cognitive acts cannot be fully accounted for without the trans-subjective reference.

Take the complex phenomenon called 'awareness of an object.' This can be analyzed into three parts, which, for brevity's sake, may be designated stimulus, reaction and relation; and I presume that, in the light of physiological psychology, we cannot get along, so to speak, with fewer. Now, the cognitive aspect of sensation, which is our immediate concern, necessarily involves (in order that it may be cognitive): first, the knowledge of a real cause of the state called 'awareness

¹ November, 1897.

² Made on p. 650 of this REVIEW.

of an object; ' second, the recognition of the state as *my* state; and third, the differentiation of the cause from my state and yet the implication of the activity of the self in and with the real cause. It is nothing but the rapidity, intensity and changing quality of our sensations that prevents the immediate conviction of the truth of this analysis. As I understand the phenomenalist (and with him Dr. Miller classifies himself) it is the last factor in our sensuous cognitions that is omitted in their analysis, and flatly denied; *i. e.*, they doubt and deny the implication of the transcendent cause (*causa sui*) in our knowledge of the object, so that all that is left is the object as state in my consciousness; but in this case, as will be seen, the richness and fulness of our cognitive experiences are suddenly deprived of their 'vital' factor. If our analysis, however, be adequate to the facts presented to reflective thought, there is thus postulated, even in our elementary and primary cognitions, though in an inchoate way, and certainly not in the form known to developed self-consciousness, the other-than-self which has the cause of its existence in itself. The question is whether any other analysis does full justice to all the facts of consciousness.

It is acknowledged, of course, that standing by itself alone, thus early in cognitive life, this case of the transcendent implication in knowledge is a very poverty-stricken one. But the essential thing is to recognize and show, if possible, that it is not a manufactured article, a speculative necessity merely, a support for ignorance; but a genuine datum of cognition, in some real sense the chief datum where the 'awareness of an object' is in question. That it is genuine may be further shown by attending to the psychological function upon which it rests. How does the mind get its objects? It is not enough, it seems to me, to say, as Professor Bowne does:¹ "The constitutive action of thought penetrates even into sensation as an articulate experience; and sensation becomes anything for thought only through the action of thought itself." This is true enough and unanswerable from the phenomenalist's standpoint. But is there nothing else involved in the process than 'the constitutive action of thought'? The question is: How does the mind *get* its objects? The full answer to this fundamental inquiry cannot ignore the relation of interaction constantly going on between the self-active ego, and the active cause of its states called the object. So far as the latter is concerned it is plainly not enough to say, it is given. This is to beg the whole psychological question. A brief remark on the so-called 'process of diremption' may serve to illustrate my meaning. This is the crucial process whereby our

¹ 'Theory of Thought and Knowledge,' p. 38.

primitive intellective experience becomes differentiated into a body, a non-ego, and a mind, an ego. Now this experience is possible solely because all our intellectual functions are discriminating and assimilative. Without entering now into the influence of heredity in predisposing the mental mechanism to make quick or slow reactions, it is plain that the act of discrimination itself is not evolved; for that would, if claimed, involve the absurdity of getting from nature what makes nature as a discriminated reality possible.

A similar remark applies to the assimilative activity. Now it is in obedience to these regular modes of the mind's behavior that the undifferentiated continuum of impressions, emanating from the causal object and raining down unceasingly upon us in every moment of our life, becomes broken up in an object and a mind that knows it.¹ Of course the gain, so to speak, in this process, is on the side of the mind, and it is the mind that is awakened and imparts its order and law to our early experiences of a noetic sort; but what is essential for our present purpose is to note that the whole 'diremptive process' rests upon the implicit connection, active in every cognitive state, and generally unrecognized because the process is so subtle and quick, namely, the vital connection of the discriminated groups (body *and* mind) in the assimilating and self-identifying mind. We shall recur to the distinction which the reader will readily detect in this statement between consciousness and self-consciousness. It is enough if we observe that in this elementary experience there is 'awareness of an object' discriminated from the self, the knowledge of which involves the capacity of the mind to refer those changing impressions and sensations it experiences to the object as '*causa sui*.' If this be denied, we are reduced to the phenomenalist's position which, disregarding the active aspect of mental life, especially as illustrated in these processes, resolves the terms of our ordinary language ('object,' 'self,' etc.) into mere 'schein'; thus obeying a tendency, inherent in its standpoint, the outcome of which is the deduction of knowledge from that which has no active participation therein. The phenomenalist would dispense with the extra-mental reality which, to use Professor James' expressive term, provides the 'prick' of our sensuous knowledge.

Closely connected with this is the question, What is the object known in perception? Controversy has raged with unusual heat, and I presume will continue to rage, on this problem. Here we are concerned with psychological facts verifiable by introspection and re-

¹ Cf. 'Ladd's Psychology, Descriptive and Explanatory,' Ch. 15 and 16; 'Philosophy of Mind,' p. 244 ff.

flection. Two remarks may be permitted: it is generally overlooked that in the experience we have been analyzing it is not all reality that is in view, but some particular object having definite presentable constituents, and whose changing states we are made aware of in our living intercourse with it. The object known in perception is always the here and now present object—the book, the table, the pen, the hand that writes, the ‘flower in the crannied wall,’ etc. If our experiences are not thus *referable* to an ordered system of objects upon which we have learned to rely, the presupposition of all science is taken away. Again, the object of which I am aware in sense-perception must, in order to be an object to consciousness, be clearly discriminated as the cause of those states the knowledge of which involves the act of reference for which we contend. Thus ‘object’ means particular object in concrete experience, known, as the subject and cause of its own state in self-consciousness. We contend, at this stage of the matter, for no more or less than this, and for this much we believe we have verifiable facts. It is not clear, to the ‘child or the rustic,’ whether the object, whose known states or changes I refer to their transcendent cause or ground, is or is not a sort of *tertium quid* between the ego and the extramental object; but is there not a real sense, a trans-psychocial, in which the trained observer may see what is not obvious to the untrained? But the difference is not in the essential content of their experiences. Each is conscious of the same essential content. Each envisages in sense-perception an extended and extramental reality, the knowledge of which depends upon the discriminative and trans-subjective function which we have already analyzed. If the facts presented are not hallucinations, pure figments, or worse, consciousness here presents us with an instance of the experience so categorically denied by the phenomenalist.

Another instance may be briefly presented, namely, the trans-subjective intention as involved in the inferential function of the judgment, and especially the question, implicit in every act of knowledge, of the *validity* of logical processes. The first is, of course, a purely psychological, the second a logical, question; yet they cannot be safely separated. Now, to judge is to relate things according to their conceptional elements. As such all thinking is judging, and both thinking and judging are essential functions of knowledge. Judgment, then, psychologically regarded, is the predication of thought to things. This function, however, also rests upon the same presuppositions which we have found to underlie the experience called ‘awareness of an object,’ namely, the abiding conviction that, independent of

our thinking, there *exists* an object so changeable within limits as to be known, and, second, that the knowledge of that object involves the postulate of the constant interaction of the self and its transcendent object; only the area of definable objects is now indefinitely enlarged. We shall never get at the real nature of prediction unless these psychological experiences are borne in mind, especially as this problem turns on the question whether, or no, every judgment involves an objective element, *i. e.*, a trans-subjective implication. Take the judgment: "the child's milk is hot." In this judgment there is plainly postulated a relation *between* the child and the object, milk. The prediction 'hot' is made on the implicit assumption of this dualism. Is there anything further? Is 'hot' a quality of the sensation known through the organs of the complex muscular temperature, and taste senses, and nothing more? Is the mind conscious only of its sensations when using the predictive term '*is* hot?' Let us distinguish here between the general question of inference, which is generally agreed to be a function of judgment, and the peculiar characteristic of *objectivity* which all our judgments among *things* possess. I contend that the living connection, the vital part, of judgment is our consciousness of an implicit power to apply, transitively, thoughts to things, a phenomenon which cannot be better described than as the judgment of the essential identity of the matter of our objective cognitive acts. And, when we turn to the logical form of the question, the situation, so far as it implicates the transcendent, is not greatly changed; for no hard-and-fast line can be drawn between psychological and logical judgments, the difference merely being that logical judgments depend upon a more developed condition of the conceptual activity than psychological. And it becomes recognized very soon in reflective experience that the logical relations among concepts, regarded content-wise, are far from being clearly and immediately accepted as real. That this is so we can readily show by substituting thing-relations for thought-relations in any supposed categorical judgment of the logical sort and note the change in consciousness: *i. e.*, many logical judgments have for their subject-matter what is unreal and even impossible merely as *thought*. This condition of things forces the mind, which never retreats from its conviction that the vital connection between the subject and object is intact, to question the validity of its logical processes, and seek for the factor, or experience, that makes a logical judgment determinative of reality and, therefore, of knowledge. Is there such a factor verifiable or recognizable in consciousness? By 'fact' or 'factor' I do not mean an experience limited by the present

content of consciousness, or by any part of the total content assumed to be covered by the word 'experience.' I mean, if the term may be permitted, the possible-for-consciousness, as well as the actual-in-consciousness; it means, therefore, for the time being at least, in the period of doubt, the other-than-my-present-consciousness; the ideal which has reality and cause *per se*, which, without the act of self-transcendence, the trans-subjective leap is an empty category and without which no valid judgment of reality ever does take place. You may call this factor 'belief,' or 'faith,' but two things are plain about it: one is that every cognitive act rests upon it, every logical judgment passes over into this more ultimate question of the validity, *i. e.*, the truth, of our cognitive processes; the second thing is that all efforts to exclude it from consideration have failed to destroy its indomitable presence. To our moorings, in reality, the self-realizing mind must be ever anxious to return, from the conceptual and abstract formalism of mechanical logic. And this process, as the history of the transition from medieval logic-chopping to the Baconian method shows, involves not only a change of attitude, but a recognition of the vital connection between the self-known mind and its extra-mental object, as well. Enough, perhaps, has been said to show that gratuitous scepticism of the transcendent implication in knowledge is an impossible position, when we have regard to our logical judgments; for blind materialism or solipsistic idealism is the only escape from denial.

We have but to add that the categories, according to which the mind works out its logical construction of the word, already postulate that identity in difference, which the phenomenalist seems disposed to call in question. Knowledge is not a projection of our conceptions upon the extra-mental reality with which it is in living contact. The 'trans-subjective' rests upon a psychological activity, which in turn depends upon the essential identity of thought and thing and their adjustment in cognition. A knowledge of things would otherwise be practically impossible. That our categories are valid in reality implies not only the psychological possibility of making the application, but also and equally upon the self-identity, so to speak, of the particular object, whose nature is in question.

This brings us to a third instance of the trans-subjective as psychological fact. It has been hinted at before that there is a distinction, for the writer, between consciousness and self-consciousness; and of self-consciousness there are stages of development. But even inchoate consciousness of self more or less explicitly recognizes the fundamental distinction between mind and body. Tennyson tells us that

even the sucking infant never 'confounds itself with the circle of the breast.' The type of experience here presented may be expressed: *I* think, *I* act. This deliverance of consciousness is immediate, and forms the raw material, as it were, which results, upon this occasion of the operation of the principles of mental development, in the more developed consciousness of self. Professor Edward Caird has clearly stated the case in the words: "In determining himself as a self, the individual *at the same time* excludes from himself every other thing or being and determines them as external objects." The question is whether any analysis of this experience covers the facts, if it disregards, ignores, or underestimates the presence in consciousness of the distinction of the self from the object, not merely as a 'content-fragment,' but as implicating the transcendent. I contend that analysis and introspection render a negative reply to this question exceedingly doubtful, and on the positive side imply the derivation of the *self* from unconsciousness, and the resolution of the *object* into a subjective phenomenon. Philosophically, materialism is the consequence in one case, in the other solipsism. But psychologically these are impossible positions, for even the inchoate consciousness of self cannot be evolved or explained according to the laws of association and suggestion, for, before these processes have had any extensive area of effective operation, before a discriminated field of objects has been built up, the elementary perception of a contiguous series or manifold of *unanalyzed* objects, set over against the mind, is already implied *as a condition* of the discrimination. The power to discriminate cannot be derived, evolved, or imparted by the thing or object discriminated. The 'extra-mental' cannot, therefore, be an inference from a subjective state. The distinction between consciousness and self-consciousness shows the impossibility of this, if indeed we are not too empty of all reality, and causality, if not of permanence, the whole field of knowledge. On the contrary, the experience known as self-consciousness implies a direct knowledge of the ego as a real existence, as a unitary being, and as both possible and actual in every psychosis of a noetic sort. If these be the facts of the case, the trans-subjective is implied in this ultimate experience. It is no argument against this position to say that the self-known self of experience is a growth. The much-abused child and rustic are only partial evidence and, so far as I am aware, are never used for more philosophical purposes; but they are still indubitable evidence and guides of our more developed thought. Of course, there are no data, capable of sensuous examination or logical manipulation, marking off the area of consciousness

and self-consciousness; but this does not vitiate the general soundness of our representation that the distinction, implicit and inchoate at first, grows clear under the complex sensational and volitional experiences which enter into it and into all knowledge.

The connection of this complex with the cases already presented illustrates the vital bond that binds together all the isolated experiences of the mind into a living unity. For nothing essentially new, as concerns the immanence of the transcendent in cognition, is added to the fundamental conviction, which is implicit even in sense-perception, that all experience rests upon a real dualism, between the elements of which there is constant interaction. The development of knowledge presents nothing which psychological science is obliged to regard as, in any sense, a violation of these types. The phenomenalist is free, of course, to deny the facts, but the onus probandi rests with him, and from this there is no escape except the attempt to include our transpsychical intention in more genetic conceptions. Against this purpose we have no immediate objection so long as it is not deprived of reality; but we have already given our conviction that phenomenism is obliged, by its inherent tendency, to regard our contention as unnecessarily complicating the problem. The immediate question, however, is one of fact, and this the development of self-consciousness, supported by the experience called 'awareness of an object,' and by the inferential validity of our logical judgments, clearly shows to be reasonable. The self, whose essence is known, especially, in volition, presents us with the most fundamental type of reality, the knowledge of which consists in the imputation to the object of consciousness a similar unitary and causal power. If this can be done, in any way appreciable by common sense, without the implication for which we contend, and without violating those real distinctions upon which science and metaphysics depend, the way has never yet been made clear since the time when speculation began. Another consideration, the value of which has not been appreciated by phenomenism, is, that the self is a teleological conception; the tidal waves of experience, when the summation of many often conflicting lines of thought seems to bring us to a more satisfactory condition, for our knowledge, rest upon this conception. The incessant activity of the self-conscious mind follows a method, which expresses the reality of that mind progressively. The differentiation, which is incident upon these epochs in our experience, of course involves the philosophical doubt as to the real nature of the extra-personal object; a doubt that can be laid to rest only as the ideals and ends of the self-conscious reason are analog-

ically applied to the object by the doubting mind, which, even in doubting, postulates that self-transcending act which accomplishes what is known as knowledge. Space will not permit us to enter into this large subject. But popular thought, especially on scientific subjects, is abundant proof of the impossibility of denying the trans-subjective implication. For example, one of the burning questions is connected with the ethical and æsthetic implications of naturalism. Now, the possibility of regarding nature as an ethical entity clearly depends upon the philosophical meaning of the word 'nature,' and on the psychological facts connected with the activity and processes of the only being which is known directly by the mind, *i. e.*, the self-known self of our daily experience. The teleology of self is immediately known. Whether 'nature' is, therefore, teleological, or not, will ultimately depend upon the defensibility of the fact for which we have been contending. As an extra-mental object nature does not tell us; 'red in tooth and claw,' there is much that points to the pessimistic conclusion supporting naturalistic pantheism. But this problem can be resolved only as the reality of the object is more and more investigated according to the standard provided by the living soul in its total progressive activities. In the very heart of this work, so subtle and quick as to be unrecognized, there is going on an incessant intercourse, which, though subtle and quick, recognizes the claims of each series and system of reality, and of each individual object as possessing an essential self-identity which forbids its departure from the normal course of its activity. If that individual object, standing thus in a system of reality, is a subject of ethical and æsthetical, as well as physical changes, it can be known only as we know ourself as subjects of similar changes and apply, trans-subjectively, the interpretations of reality to it.

The full descriptive history of this phenomenon it is impossible to present in the limits at our disposal. The essential truth we have contended for may, however, be seen in the types of normal experience which have been presented. Other cases will readily present themselves, especially when we have regard to the phenomena of abnormal psychology; but they may all be regarded as the extension of these known cases, and the laws which regulate their operation. From the psychological standpoint, then, it would seem that something more than 'asseverations' may be brought forward for Professor Ladd's contention. A remark or two, from the logical and metaphysical points of view, may be permitted, especially as these culture interests involve psychological facts and processes.

Dr. Miller has not only denied the trans-subjective as psychological fact, but charged Professor Ladd with attaching no logical meaning to it. He declares that it rests on a self-contradiction; namely, a being "cannot resemble another in its numerical identity and by its own being convey the existence of something else."¹ This conception of the fact in question is unpsychological. It is not a fact at all, but a hypostatized entity torn from the living contents of self-conscious experience. We have no knowledge of such a process. The trans-subjective implication does not create the extra-mental as the phenomenalist supposes; this would imply that the object is nothing but a 'content-fragment' of consciousness. The cases we have presented show that sense-perception, taking all practical uses into consideration, objective predication and self consciousness, develop in the unity of a complex growth. There is no isolated content-fragment called the trans-subjective, capable of separate analysis and elevation to the dignity of a logical or metaphysical postulate. But it is none the less a vital factor in cognition, upon which both logical and metaphysical activity, as they enter into knowledge, depend.

And from the logical standpoint also no valid answer is constituted from the conception of numerical identity, for this is not a logical concept, except within certain well-defined limitations. It is inapplicable to any fact beyond the particular instance we may have in hand, and only so long as we choose to maintain the identity. There is no logical reason why we may not regard the self-identical being as different, so long as we honestly announce it as such. Logic has nothing whatever to do with this change, or the introduction of a new predicate. That is a matter of psychological analysis and truth. If this also be denied, the whole *practical* importance of a fact will be lost. For logic, as for psychology, the supreme question is not that of consistency, but the question of realizable conditions or truth. Dr. Miller's logical nominalism is the immediate result of the attempted divorce of the living connections and variety of our concrete experiences. There is only one way of escaping, it would seem, from this predicament, and that is to hold with Lotze,² that from the law of Identity nothing can follow which qualifies the reality of the being and to recognize that the concrete facts of our experience and knowledge make being and change mutually inclusive conceptual facts of the cosmos.

Finally, the empirical consciousness of the trans-subjective enters into our metaphysical view of the implications of knowledge. If there

¹ P. 652 of the REVIEW.

² Metaph., § 39; cf. Logic, § 55.

were time it might be shown that it is not alone the consciousness of the child and the rustic, but also that which has been rendered scientific in such ways as a theory of evolution that involves the experience for which we have contended. There are few who will to-day hand in their assent to a purely determined view of knowledge, either subjectively or objectively, but the surprising feature of the situation is that so few see that the necessary correlate is the admission of the mind's power to transcend its crude dualism, its cold Spinozism, and seize the causal subject in its essence. Evolution is still the evolution of some thing or mind, and of this we have, and can have, no knowledge, if the reality of that thing or mind is separated from the primary as well as the most highly cultivated and complex psychological experiences in a permanent way. Essentially there is nothing unrelated to reason; but we have to get our knowledge by degrees; and this is possible only as the mind, possessing reality, is able to explore the ocean of being which lies spread out before us, as in some real sense, reflective of a life which, far transcending ours, is, nevertheless, identical with that which we ourselves experience.

Phenomenalism, therefore, must not simply deny an unpopular or unrecognized truth, but go to work and *disprove* its right to existence. Until it has been argued out of existence it is still truth, and will survive the shocks of debate. Meanwhile, awaiting the treatment, it will continue to provide ground and cause to our higher ethical and æsthetical experiences, as well as to those more primary questions. Phenomenalism, with its implicit agnosticism, too, will continue, and mete out denial to these claims. I hesitate to classify Dr. Miller among this class of thinkers, therefore I can say without the suspicion of offense that I regard phenomenalism as the worst of abstractions and the veriest cant of current philosophy.

HENRY DAVIES.

CONSCIOUSNESS UNDER NITROUS OXIDE.

An English correspondent sends me the following account of his subjective experiences during nitrous-oxide intoxication. I place it (with his permission) on record in the *PSYCHOLOGICAL REVIEW*. Normal human consciousness is only a narrow extract from a great sea of possible human consciousness, of whose limits we know nothing, but of the nature of portions of which such documents as the following may help to inform us. It were greatly to be wished that they might be multiplied.

W. J.