

destroyed. At three metres distant from the original pillar, as much as the narrow ridge would allow, a new pillar was built, the top of which was made level with that of the original one. The measurements made in order to fix the position of this new pillar showed such differences with the original measurements, that these could only be explained by a displacement of the original pillar. As, however, neither fissures nor local disturbances of the ground could be observed, new measurements were

Position of Pillars  
Scale 1.800000

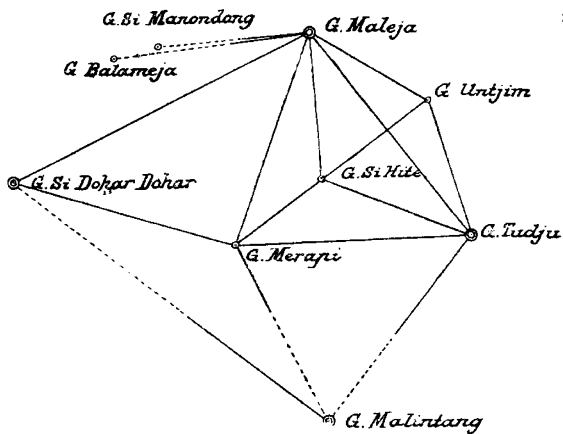


FIG. 1.

made from all the surrounding positions, and it was proved that a displacement of several more pillars had taken place.

Fig. 1 shows the position of the pillars before the earthquake; Fig. 2, their displacement by the earthquake. A detailed description of these measurements was published in the *Natuurkundig Tijdschrift*, vol. iv. part 3, by Captain Muller, the chief of the triangulation party. The longest distance over

Displacement of Pillars by earthquake

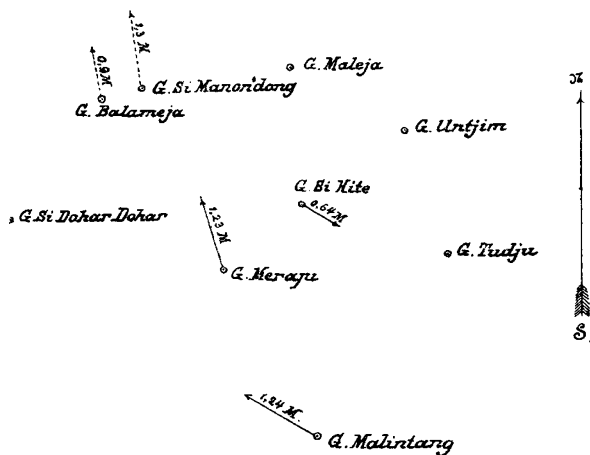


FIG. 2.

which a displacement was proved to have taken place was between the Gunung Malintang and the Dolok Balameja, or 53 kilometres. Captain Muller, however, has no doubt that if a new survey were carried on more southward, a displacement of more pillars—that is, a contortion of the surface over a larger area—would be found to have taken place.

Malang, April 14.

TH. DELPRAT.

Instinct-Impulse.

THE note published in NATURE under date of April 18, in reference to my article in the April number of *Mind*, leads me to think that it may be well to explain my reasons for adopting the terminology there and elsewhere used by me, and which the writer of the note calls in question. I do so with the hope that this explanation may lead towards that "consensus of opinion on psychological nomenclature" that the writer of the note thinks is at present impossible.

The word "instinct," as my critic states, is generally applied "to the manifestation of particular activities." In other words, it is used by the biologist in an *objective* study of activities in animals, when he is not dealing with the nature of the conscious states coincident with these activities. It is thus, too, that I employ the word; but I have extended its use to cover certain manifestations of activities that do not take a large place in the considerations of the biologist, but that, nevertheless, appear to me to be of the same general nature as those "manifestations of particular activities" to which the word "instinct" is by current agreement applied.

What I claim is that the actions of one who is carried away by imitation, and the work of the philanthropist and of the artist, when objectively viewed, appear as "manifestations of particular activities," just as much as do the actions that go with self-defence and tribal protection, with care of the young, with nest-building, with migration, &c., and that therefore the term instinct, if applied to one set of such activities, may be applied to all.

If it be held that the objection to the extension of the use of the term lies in the fact that the activities that I speak of as due to the "imitation instinct," the "benevolent instincts" and the "art instincts" are not sufficiently *particular*, then I must answer that the fixedness of the actions involved is in all cases of instinct only relative; that this relative fixedness varies with the different instincts. In the self-preservative reactions, for example, we are able to predict the blow at the enemy, whilst the very varied actions by the animal mother in securing the safety of her young are unpredictable; but who hesitates to speak of the maternal "instincts"?

The word "instinct" then, in my view, should be used to indicate the manifestations of those animal activities which, when we consider them objectively, we see to have become emphasised because of racial values; of these values the acting animal (even if he be a man) may have no cognisance whatever. This is the usual use of the word, and there seems to me to be no scientific demand for any change in this usage.

On the other hand, I have suggested that we use the term "instinct feelings" to indicate the conscious coincidents of the animal activities that we call instinctive; and I have endeavoured to show that where these instinct actions are relatively fixed and forceful, then their coincident "instinct feelings" gain names, and form the class of psychic states known as the "emotions."

Furthermore, I object to the use of the word "impulse" in the description of these activities, as my critic suggests its employment, especially when they are objectively considered; for the word "impulse" is in general used to indicate those phases of consciousness which are produced by the *inhibition* of instinctive activities that have been stimulated by the presence of the objective condition that usually calls them out, but which for one reason or another are not at once realised. This, indeed, is the way in which the word is usually employed, not only by the psychologist, but in common speech as well. We speak of having an impulse to strike an enemy, not when we do strike him, but when the instinct to strike is held in check. What is more, I think this word "impulse" should be employed in this sense only; for the requirements of science do not demand its use with any other signification. I have discussed this matter of the nature of impulse rather fully at pp. 272, &c., in my book, "Pain, Pleasure, and Aesthetics," to which the writer of the above-mentioned note refers.

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New York, May 2.

THE term "instinctive" should, in my judgment, be applied to those activities which are congenital and which are also relatively definite; the term "instinct" being reserved for the subjective and affective condition of the performance of instinctive activities. Where the definiteness is the result of individual acquisition the term "instinctive" should not be applied, though it is so used by Prof. Wundt and others. The modern