plant heights resulting from the gene action which he postulates:

nndd	1
nnDd, Nndd	1.5
NNdd, nnDD	2
NnDd	2.25

The substitution of N for n in a genotype which would otherwise produce a plant 1.5 units in height gives a genotype producing a plant either 2 or 2.25 units in height, depending on the residual genes present. Interaction of this type can not be made to disappear by transformation of scale and is non-"statistical" in the sense defined above. In this particular example it can be thought of either as complementary (inter allelic) or dominance (intra allelic) interaction. Only non-statistical interaction can ever lead to heterosis in the offspring of two equal parents with respect to the measure considered.

It is doubtful whether non-statistical interaction should be described as "mock" regardless of the measure involved even though the existence of gene interaction based on certain measures might be relatively insignificant from the standpoint of analysis of gene action or of practical application.

(3) If the action of any particular gene substitution affecting internode number or length were proportional to the total effect of all the genes present, the height of the hybrid in Richey's example would equal that of the two parents. In such case the logarithms of height, internode number and internode length would all constitute scales on the basis of which interaction is absent. Probably no other type of simply expressed gene action can result in the absence of non-statistical interaction for measurements related to each other as products, quotients and powers, as are lengths, areas, volumes and many shape indices. This constitutes a statistical reason for expecting more frequently an approximation toward independent action of gene differences when the action is expressed as logarithms of measures of these types than when expressed as the measure themselves or any other simple function of them.

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A NEW GROWTH FACTOR FOR STREPTOCOCCUS LACTIS

USING as standard a sample of folic acid concentrate (7.7 per cent.) kindly supplied by Dr. R. J. Williams we compared the amount of folic acid[1] and norite eluate factor[2] in various types of extracts and liver preparations and found that some of these materials are much more active for *Streptococcus lactis R* than for *Lactobacillus casei*. In contrast an extract of spinach had the same degree of activity for both organisms.

These differences can be demonstrated to be due to the presence of another substance which we have now isolated. The new substance effectively replaces the folic acid standard in the case of *S. lactis* but is inactive for *L. casei*. We have calculated that 1γ of this product has the same potency for *S. lactis* as 56γ of the folic acid standard but that the same amount of this factor is less active than 0.0004γ of the folic acid standard for *L. casei*.

We believe that this newly isolated substance, for which we have reserved the designation of a name until its chemical nature is determined, is not folic acid or the norite eluate factor but a new growth factor.

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SULFAGUANIDINE OR SULFA-AMIDINE?

INCONSISTENCIES or inaccuracies in nomenclature are fairly common in the field of chemistry. The offense to students is perhaps not serious when such practice involves unusual cases. This does not, however, justify an attitude of indifference in the matter of accuracy whether it be in naming compounds or in the use of scientific terminology. Attention is called here to the misnaming of one of the sulfa drugs. The names and formulas of the more common and useful of these compounds are to be found in most recent editions of books on chemotherapy or biochemistry. An acquaintance with the parent compound and the modifying groups would enable any one to write the formulas of such compounds as sulfathiazole, sulfapyridine or sulfadiazine. To apply the same technique in the writing of the formula for sulfaguanidine would lead to obvious error. In the interests of accuracy this substance should be named sulfa-amidine or, for those who desire a more euphonious name, sulfamidine.

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IN several preceding editions of the Biographical Directory of American Men of Science, one thousand

[1] Folic acid was determined by means of the *Streptococcus lactis R* assay method of Mitchell, Snell and Williams. (*Jour. Am. Chem. Soc.*, 63: 2284, 1941.)

[2] Norite eluate factor assays using *Lactobacillus casei* (B. L. Hutchings, N. Bohonos and W. H. Peterson, *Jour. Biol. Chem.*, 141: 521, 1941) were made in essentially the same medium as for folic acid assays.