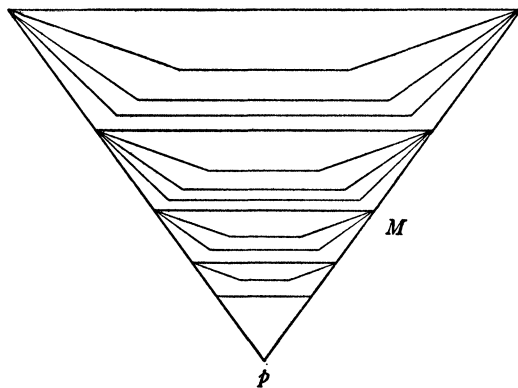


# CONCERNING APOSYNDETTIC AND NON-APOSYNDETTIC CONTINUA

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**Introduction.** One might judge from the title that I am going to discuss *continua*. For is not a continuum either aposyndetic or non-aposyndetic? What I intend to do is to consider continua from a certain point of view, and from this point of view continua may be classified in a rough sort of way. This system of classification (and the basic concept upon which it rests) is only in its infancy. Here then is a report upon the beginning rather than the completion of an interesting and, I trust, useful field of study.



EXAMPLE 1

To avoid any confusion, I shall confine this discussion to continua lying in a compact metric space which in most cases is the complex number sphere (or a topological 2-sphere,  $S^2$ ). Hence all continua are connected, closed, and compact sets.

Consider the difference between the familiar concepts of a continuum being connected im kleinen *at a point* and a continuum being *locally connected* at a point.<sup>1</sup> A continuum  $M$  is locally connected at a point  $p$  of  $M$  provided that if  $R$  is a region containing  $p$ , there exists a connected open subset  $U$  of  $M$  such that  $R \supset U \supset p$ . The continuum  $M$  is connected im kleinen at  $p$  provided that if  $R$  is a region

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<sup>1</sup> For the definition of certain terms and phrases see [11]. Numbers in brackets refer to the bibliography at the end of this paper.