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MONOPOLISTIC OR IMPERFECT COMPETITION?[1]

SUMMARY

Some misconceptions examined relative to: marginal revenue, 558; increasing returns, 560; tangency of demand and cost curves, 561; large numbers and divisibility, 562; restriction of entry, 566; differentiation of product, 568.— The nature of monopolistic competition, 570; contrast with imperfect competition, 573.— Significance of the difference with respect to: profits, 576; "competitive" norms, 576; "exploitation," 577.

I

The theories of monopolistic and of "imperfect"[2] competition are now familiar in some degree to most students of economics. The new problems opened up seem to be many, and a literature already large continues to expand.[3] Altho the time does not yet appear ripe for a sifting of this literature and a comprehensive restatement of the theory, it is important that some mistaken notions be brought to the fore without further delay in order that work may proceed with a sound understanding of what the issues really are. In this article I hope to accomplish something in that direction. It may be divided roughly into two parts. In the first, having in mind the similarities between certain parts of the theoretical structures of imperfect and of monopolistic com-

1. Parts of this article were presented as a paper at the meeting of the American Economic Association in Chicago, December, 1936. I acknowledge with thanks the helpful criticisms of several of my colleagues, especially of Professor Leontief and Dr. Wallace.

2. I quote "imperfect" to indicate the particular meaning attached to this term by Mrs. Robinson in her Economics of Imperfect Competition and by those who have followed her in this terminology.

3. A bibliography appears in The Theory of Monopolistic Competition, 2d edition, 1936.

petition,[4] we shall look briefly into a number of misconceptions, either vaguely current or held by specific writers, as to the nature of this general type of theory. In the second part we shall have regard to dissimilarities. Its purpose is to reaffirm the nature of monopolistic competition as a composite of monopoly and competition, calling attention here to a fundamental difference between Mrs. Robinson's conception of the problem and my own, and to some of its consequences.

I proceed first to the misconceptions with respect to the general type of theory. The first of these is that "imperfect" and monopolistic competition are in some special way related to the marginal revenue curve. The association might be described as an historical accident. With reference to the marginal revenue curve, Mrs. Robinson states,[5] "This piece of apparatus plays a great part in my work, and my book arose out of the attempt to apply it to various problems . . ." The applications are indeed ingenious, and Mrs. Robinson has effectively demonstrated the value of this particular bit of technical equipment; but she seems prone to exaggerate its importance. For instance, on page 6 she says, "Whilst many pieces of technical apparatus have no intrinsic merit, and are used merely for convenience, the use of marginal curves for the analysis of monopoly output contains within itself the heart of the whole matter." It is, to be sure, an "intrinsic merit" of the marginal curves that their intersection reveals monopoly *output* more neatly than does the fitting of areas between curves of average cost and average revenue. At the same time, it is an intrinsic demerit that they do not indicate the *price* at all. It is a further intrinsic demerit that they do not readily indicate *profits*, either per unit or in the aggregate. It is certainly because of these shortcomings that we do not find a single one of the eighty-two diagrams in Mrs. Robinson's book in which the marginal revenue curve appears unsupported by the average revenue curve.[6] Further-

4. Specifically, those parts having to do with price-quantity relationships in the absence of monopsony, discrimination, small numbers, product variation and selling costs.

5. Imperfect Competition, p. vi.

6. Marginal cost curves frequently appear without average cost curves.

more, when we get beyond equilibrium for the single firm in isolation, the marginal curves do not contain "the heart of the whole matter," even for output. This appears in Mrs. Robinson's own description of "competitive equilibrium" (under "imperfect" competition), where we find that full equilibrium "requires a *double* (my italics) condition, that marginal revenue is equal to marginal cost, and that average revenue (or price) is equal to average cost."[7] In reality, there is no double condition at all; the equation of price with average cost is quite sufficient, because it necessarily includes the equation of the marginal items, whereas the reverse is not true. Instead of containing "the heart of the whole matter," the marginal curves would appear to be quite subordinate. Even for the problem of equilibrium for the single firm, they are merely an alternative technique for reaching the same results as by the use of the average curves. Mrs Robinson herself points this out when she says, "It is clear that the marginal method of analysis will produce exactly the same results as the method, used by Marshall, of finding the price at which the area representing 'monopoly net revenue' is at a maximum, since net revenue is at a maximum when marginal revenue and marginal cost are equal."[8]

With so much of the theory of imperfect competition developed in terms of marginal revenue and marginal cost, it is not surprising that marginal revenue should be closely associated in the minds of many with imperfect competition. Thus Mr. Harrod, in his article on "Imperfect Competition and the Trade Cycle,"[9] says that "the leading principle of the theory of imperfect competition is that entrepreneurs tend to equate marginal cost to marginal revenue." Yet it is perfectly obvious that the equation of marginal revenue and marginal cost is a general principle for the individual firm under any circumstances whatever, even under the purest of pure competition. It is, at bottom, only another way of saying that producers seek to maximize their profits, and

7. P. 94.
8. P. 54, note 2.
9. Review of Economic Statistics, Vol. 18, p. 84.

contributes nothing to distinguishing "imperfect" competition from pure competition and monopoly.

A second misconception might be described as an exaggeration or distortion of the relation which imperfect and monopolistic competition bear to "increasing returns." An historical association between them naturally arises from the fact that the theory as crystallized in Mrs. Robinson's book seemed to evolve out of a series of articles by Professor Knight, Mr. Sraffa, Professor Pigou, Mr. Shove, Mr. Harrod, Mrs. Robinson and others on the nature of increasing returns and whether or not they were compatible with competition. But altho "imperfect" competition appears, in this instance, to have derived *historically* from increasing returns, the *logical* derivation, in so far as it exists, seems to be the other way round. Both Mrs. Robinson and myself have clearly defined the problem (for the case of large numbers) with reference to factors affecting the shape of the *demand* curve, and without reference to cost conditions.[1] It is true that equilibrium under this type of theory is usually (tho not necessarily) reached within the diminishing cost phase of the (production) cost curve for the individual firm; but when we bear in mind that the cost curve for the firm has the same U-shape, whether under pure or monopolistic competition, it appears at once that "increasing returns" in the vicinity of equilibrium for the firm are the *result* of monopolistic competition and no part of the definition of it.[2] The shape of the cost curve is, of course, a factor in defining equilibrium, but this may be said of any problem in value where there *is* a cost curve. It is the shape of the demand curve which marks

1. Imperfect Competition, p. 51; Monopolistic Competition, pp. 7, 17, 71. Professor Hutt, in his article, "Economic Method and the Concept of Competition" (Journal of South African Economics, Vol. 2, p. 3), regards the increasing returns genealogy as having an important bearing upon the "authoritative" character of Mrs. Robinson's writings as compared with my own (p. 4).

2. "Industry" curves of increasing, constant and decreasing cost seem all three to be compatible with both pure and monopolistic competition.

the contrast between monopolistic and pure competition.[3]

A third misconception may be disposed of briefly. It is the notion that monopolistic competition is concerned only with situations where the demand and cost curves are tangent, hence where there are no monopoly profits, whereas any situation where there are such profits is to be classed as a monopoly. A moment's reflection will show that this is an artificial distinction. The issue does not really arise in connection with Mrs. Robinson's "imperfect" competition, for the reason that she includes as a cost *all* profits which are being earned when there is no tendency for the number of firms in an "industry" to alter, thereby making the demand and cost curves for *all* individual firms tangent by definition.[4] It does arise, however, in connection with monopolistic competition, and the view that the tangency of cost and demand curves is the central principle involved is one which I have encountered many times.[5] It may perhaps be accounted for by the over-prominence given to this solution in my own statement of the theory. All that need be done here is to call attention to passages (p. 82 and pp. 110 ff.) where it is made clear that the solution of tangency flows from certain heroic assumptions which are later dropped, and is to be regarded as of only limited direct applicability, being mainly an expositional device, which represents an intermediate stage in the development of the theory.

3. The matter might be expressed in another way by saying that "increasing returns" are neither *necessary* nor *sufficient* for monopolistic competition. They are not necessary because it is possible for the demand curve to lie above the cost curve in such a way that marginal revenue and marginal cost intersect above and to the right of the point of minimum average cost. They are not sufficient because a horizontal demand curve makes equilibrium within the "increasing returns" phase of the cost curve impossible.

4. Imperfect Competition, Ch. 7 and 9. Mr. Kaldor has called attention to the "merely formal similarity" between Mrs. Robinson's version and my own in this respect. Cf. "Market Imperfection and Excess Capacity," Economica, February, 1935, p. 34.

The significance of this treatment for the theory of profits will be mentioned further on.

5. See the remarks on this point by Professor Machlup at the Chicago round table, American Economic Review, June, 1937, p 325; and his forthcoming note on the subject, ibid., September, 1937.

The essential point to be made is that both with and without tangency of the two curves there is a blending of competition and monopoly. The only essential difference between them is in the matter of profits: with tangency, monopoly profits disappear, but all the other phenomena which arise from the monopoly elements in the situation remain. Among them are monopoly prices and outputs, selling expenditures and possibly discrimination. Perhaps the matter is most easily cleared up by the realization that the whole theory of monopoly as familiarly conceived is part and parcel of the theory of monopolistic competition, at least as I have sought to describe it.

Parenthetically, there might be mentioned an argument frequently encountered, especially in the field of public utilities and railroads: that a field is competitive if profits are not excessive. Thus it is held that the railroads need no longer be regulated, since their profits are held in check by the competition of other forms of transportation; and similar propositions are made with respect to other utilities. The answer is, of course, that profits are only one element in the situation; rates, discriminatory practices, service in all its aspects, investment, and other policies may be strikingly influenced by monopoly elements, even tho profits are not excessive.

A fourth misconception is that differentiation of product is reducible to a matter of numbers in the market, in the sense that with larger numbers the demand curves for the individual firms would become more and more elastic until conditions of pure competition were reached. This idea I have encountered again and again in discussions; indeed it appears to have an astounding — and disconcerting — vitality. It makes a fleeting appearance in Mrs. Robinson's book, where she considers the possibility that, owing to an increase in demand in the whole market, new firms would be set up "so to speak, in between the old firms (either geographically or in respect of special qualities which appeal in various degrees to different customers). The difference, from the point of view of buyers, between any one firm and the

next would thus be reduced, the customers of each firm would become more indifferent, and the elasticity of demand would be increased . . . successive increases of demand of this type would ultimately *remove market imperfection altogether* . . ."[6] She goes on to point out, however, that in the real world, advertisement and other devices would be brought into play before this happened, and would break up the market again. With Mrs. Robinson, this flattening out of the demand curves is only one of several possibilities. With Mr. Kaldor[7] the argument is stated in more general terms, altho the illustration is again that of new firms coming "in between" the old ones as numbers increase.

Do larger numbers make the demand curves approach more nearly to the horizontal position characteristic of pure competition? — that is the question. Clearly there is no general presumption that they do. For instance, if we think of stores distributed over an area, their number may increase by an expansion of the area, rather than because of a denser population within it. The new firms in this case are not in between the old ones at all, and "products" are no more nearly alike than they were before. In non-geographical problems new firms, selling new varieties of product, are bound to appeal to at least some new buyers, and hence to have always an effect analogous in some degree to the expansion of the area in this geographical example. Moreover, the concept of "in-between products" is not always easy to apply outside of geographical problems. Can gas refrigerators be regarded as "in between" some other two varieties, say electric and natural ice? Are menthol cigarettes "in between" some other two brands? It seems clear that large or small numbers indicate nothing *necessarily* as to the degree of substitutability between the products concerned. This is perhaps most clearly evident from the fundamental proposition that the number of producers in any field depends first of all upon how broadly the field is defined.

But even where the products may easily be thought of as

6. Imperfect Competition, p. 101 (my italics).
7. Loc. cit., p. 42.

coming "closer together" with a larger number of producers, the result is not necessarily a closer approach to pure competition. If we suppose producers and their customers to be located along a line, the demand curve for the product of any one firm will be a straight line of slope determined by costs of transport or by the valuation per unit of distance put upon the element of convenience.[8] Now if high profits lead to an increase in the number of sellers, so that the curve moves to the left, it will remain of the same *slope* so long as the rate at which buyers value convenience does not change.[9] There appears to be no tendency for the curve to approach the horizontal with larger numbers, unless there is a change in the valuation put upon convenience; and altho this latter might possibly be affected by the alteration in numbers, it does not seem clear why it should be. On the other hand, there is a definite relationship in the reverse direction. Changes in the valuation put upon convenience (or, in general, upon *variety* in the product) are bound to affect numbers. A lower valuation would flatten the demand curves and thus reduce the number of sellers; a higher valuation would do the opposite. Evidently an actual increase in numbers may be associated in fact with a strengthening rather than a weakening of the elements of monopoly in any particular situation.[1]

The general conclusion must be that with a differentiated product the "number of producers" ceases to have the definite meaning which it has in relation to any particular (standardized) product, and that broad generalization as to the effect of numbers upon the slope of the demand curves for individual producers is no longer possible.

Closely allied with the question of numbers is that of divisibility. If all factors were perfectly divisible, what would

8. It is not necessary for the argument that convenience be subjected to a rational calculation. People may buy at the nearest store merely by impulse or chance, without any calculation whatever

9. Its elasticity at any particular price would evidently diminish as the curve moved to the left, but this does not involve a flattening out of the curve.

1. Cf. Mrs. Robinson's three types of increase in demand, Imperfect Competition, p. 100.

happen to monopolistic competition? Mr. Kaldor answers[2] that "where everything is perfectly divisible, and consequently economies of scale completely absent, 'perfect competition' must necessarily establish itself solely as a result of the 'free play of economic forces.' No degree of 'product-differentiation' and no possibility of further and further 'product-variation' will be sufficient to prevent this result, so long as all kinds of 'institutional monopolies' and all kinds of indivisibilities are completely absent." ("Institutional monopolies" play the rôle, in his argument, of preventing the reduction of profits to their minimum. Let us here assume such forces absent.) The supposed transformation of monopolistic into pure competition with perfect divisibility comes about (1) because economies of scale disappear, so that the cost curve is a horizontal line, and (2) because, as more firms are drawn in by the profits which appear when such a cost curve is combined with a sloping demand curve, the demand curves themselves swing around to the horizontal position, for reasons presented above. But if the demand curves do *not* become horizontal, as I have argued in general above, infinite divisibility leads to an absurd result: the influx of firms would simply continue indefinitely (because there would always be profits under constant costs); and the final outcome would appear to be an infinite number of infinitesimally small firms. Incidentally, it ought to be assumed, I suppose (shades of Ruskin!), that buyers, too, are infinitely divisible. This would remove completely any reasons for a flattening out of the demand curve with infinite divisibility, since sellers would not become more numerous and closer together *relative* to buyers. The conclusion must be that the general assumption of infinite divisibility contributes nothing towards the flattening of the demand curve, and hence does not convert monopolistic into pure competition.[3]

2. Loc. cit., p. 42.

3. To discuss the effect of infinite divisibility upon the cost curve would carry us far afield. Certainly if there is any inconsistency between such a striking feature of the economic system as economies of large scale production and the assumption of infinite divisibility, it

Fifthly, there are various misconceptions having to do with "restriction of entry," among them one of my own which I take this opportunity to clear up. We may begin with the view that "restriction of entry" is incompatible with perfect competition, and hence necessarily indicates monopoly or "imperfection." Mrs. Robinson has dealt with this matter at length, and I can only record my agreement with her conclusion that restriction of entry into an industry is quite compatible with perfect (and with pure) competition, provided only that conditions within the industry are such as to make the demand curve for the output of an individual firm perfectly elastic.[4] Retriction of entry is likewise compatible, of course, with imperfect and with monopolistic competition; and there can be no doubt that freedom of entry is compatible with perfect (and pure) competition.

The question remains whether "freedom of entry" is compatible with monopolistic competition. There seems to be no doubt that Mrs. Robinson thinks it is, and I have, up to this point, written as if it were. I should like now, however, to record a change of view in the matter. Mr. Kaldor has rightly pointed out that the assumption that "entrance to the field in general and to every portion of it in particular was unimpeded"[5] implies that "every producer *could*, if he wanted to, produce commodities completely identical to those of any other producer — if he does not, this is merely because he would not find it profitable to do so."[6] Logically,

is the latter, not the former, which must give way. But I have explained elsewhere (Monopolistic Competition, Appendix B, especially p. 190) that the proposition that economies of scale disappear when factors are infinitely divisible, means, when properly interpreted, not that the cost curve is horizontal throughout, but only that it is horizontal when the scale of production is large enough so that units of factors are actually very small relative to the whole. The familiar statement that under perfect competition there are no economies of scale should be reversed so as to read that under economies of scale there is no perfect competition. In other words, *one* of the many requirements for perfect competition must be that economies of scale have been exhausted and each firm is producing at the low point on its cost curve.

4. "What is Perfect Competition," Quarterly Journal of Economics, vol. 49, pp. 104–111.

5 Monopolistic Competition, p. 111.

6. Loc. cit., pp. 43–44.

this is what "free entry" in its fullest sense must mean, and it is quite incompatible with a differentiated product. With respect to the *particular product* produced by any individual firm under monopolistic competition, there can be no "freedom of entry" whatever. No one else can produce a product identical with it, altho he may be able to produce others which are fairly good substitutes for it. Under monopolistic competition, then, there can be freedom of entry only in the sense of a freedom to produce substitutes; and in this sense freedom of entry is universal, since substitutes are entirely a matter of degree.

In order to give the concept meaning, it might be defined as freedom to produce substitutes within an arbitrarily delimited range of goodness, say a range sufficiently good to eliminate profits in excess of the necessary minimum. If, however, we now speak of "industries" in the common sense of the word, it is evident that parts of an industry may be characterized by freedom of entry in this sense, while others are not; "goodwill" is the familiar evidence of such a situation. We may well ask, then, into what is entry free? We cannot speak of freedom of entry into an industry, even in the limited sense here defined, unless profits for *all* producers in the industry are reduced to the minimum included in the cost curve, through demand curves being everywhere tangent to cost curves. Even supposing that this were true, there would remain the bothersome fact that some of the profit elimination is achieved, not by substitutes composing the "industry," but by substitutes outside of it; in other words, the results in terms of which freedom of entry *for an industry* are defined, actually involve a degree of freedom to produce substitutes over a much wider range than the "industry" as defined. The upshot of the matter seems to be that the concept is not very useful and may even be misleading in connection with monopolistic competition. It is, in reality, a concept usually related to a market for a definite commodity, and the fundamental difficulty is that there is no such commodity under monopolistic competition beyond that produced by an individual firm. In the matter of entry,

all that we need to say is that wherever there are profit possibilities they will be exploited so far as possible. The enjoyment of large profits by any particular firm is evidently an indication that others, by producing close substitutes, may be able to compete some of them away. The results may be very simply described without any concept of freedom or restriction of entry — without even the concept of an "industry": some firms in the economic system earn no profits in excess of the minimum counted as a cost, others earn more than this, and in various degrees.[7]

Last among the misconceptions must be mentioned Mrs. Robinson's attempt to show that "imperfection" is not to be associated with differentiation of the product. "Professor Chamberlin's attitude to the perfection of the market," she says,[8] "is not quite clear. He seems to associate imperfection simply with differentiation of the product. But . . . physical differentiation is not a *necessary* condition for market imperfection. . . . Nor is differentiation a *sufficient* condition for market imperfection." She argues that differentiation is not *necessary* because "two commodities may be alike in every respect *except the names* of the firms producing them, and yet the market in which they are sold will be imperfect if different buyers have different scales of preference as between the two firms" (Italics mine). Yet at the place in Monopolistic Competition cited by her the names attached to products are specifically mentioned as a phase of differentiation, and it is made clear that the basis of differentiation "may be real or fancied, so long as it is of any importance whatever to buyers, and leads to a preference for one variety

7. It is not meant by this argument to discard completely the concept of an "industry." In many connections, it is obviously useful to delimit a portion of the economic system and study it in some degree of isolation from the rest. And if this can be done, it is not wholly without meaning to speak of the relative ease with which this particular field may be entered. One emerges from any attempt to classify industries, however, with a feeling that it is all exceedingly arbitrary. It seems much easier and more defensible to set up classifications based upon technological criteria than upon the possibility of market substitution.

8. Loc. cit., p. 112.

of the product over another."[9] Mrs. Robinson's objection to differentiation as *necessary* turns out to be an instance in support of it.[1] Her argument that it is not *sufficient* consists in showing that, even tho products were differentiated, *if* all buyers were alike in respect to preferences and *if* each buyer

9. Page 56.

1. In no one of the four references to Monopolistic Competition contained in Mrs. Robinson's article has she stated or interpreted correctly what I have said. In the first place, her evident misunderstanding of the distinction between "pure" and "perfect" competition (p. 105) leads her to misapply it and to conclude that it is "misleading" and "pays a verbal tribute to the old confusion." On this matter see the article by Mr. White, "A Review of Monopolistic and Imperfect Competition Theories," American Economic Review, December, 1936, at pp. 642–43, where he holds that her arguments strengthen rather than weaken the case for such a distinction.

Secondly, there is the misdirected criticism of the differentiation of the product, discussed in the text above.

Thirdly, with respect to numbers, she says (p. 114), "It is sometimes supposed that for competition to be perfect it is necessary that the number of buyers should be large. [Footnote reference to myself, altho almost anyone else would have done as well.] But this is the reverse of the truth." My own statement is clearly made with reference to both buyers and sellers, and Mrs. Robinson herself says the same thing elsewhere (Imperfect Competition, p. 216). It becomes the "reverse of the truth" in her vain effort to make "perfect competition" compatible with a differentiated product. For this it is necessary that buyers be "exactly alike in respect of their preferences," and we cannot be certain of this, as Mrs. Robinson shows, unless there is only one buyer. For perfect competition *among sellers*, then, we must have monopsony. Mrs. Robinson now has the truth "in reverse" at full speed. For perfect competition *among buyers* we must have only one seller, or monopoly. Are we to conclude that for full perfection the requirement is bilateral monopoly?

Finally, Mrs. Robinson summarizes by saying that there is "not one universal value for the 'large number of firms' which ensures perfect competition" (p. 120), and leads the reader to think, by a footnote reference, that I have suggested 100 as such a "large number." In the particular passage to which she refers (p. 49) it seems clear that 100 is taken merely for illustrative purposes, and the statement is explicitly made that, as the number of sellers increases, "it is impossible to say at just what point this consideration [having to do with small numbers] ceases to be a factor," a conclusion which seems quite in accord with her own, altho, to be sure, for different reasons. Mrs. Robinson ends by announcing that, altho I had said that 100 would be a "large number," two would have been enough in the particular case I was considering (p. 49). No explanation is given, and, having explained at length myself why two would *not* be enough, I remain unmoved by a mere conviction, however intensely felt, that it is not so.

dealt with only one firm at a time, the market would nevertheless be perfect. This seems to be obviously true. But the conditions are severe, to say the least, and examples would be difficult, if not impossible, to find. Perhaps it is for this reason that she gives none, but speaks only of product A and product B throughout. If tastes or preferences differ — and they appear to do so very generally — it would seem that differentiation, as I have defined it, is also a *sufficient* condition for monopolistic competition.

II

Let us turn now to the question of what monopolistic competition *is*, and, in particular, how it is different from imperfect competition. "Monopolistic competition" is a challenge to the traditional viewpoint of economics that competition and monopoly are alternatives and that individual prices are to be explained in terms of either the one or the other. By contrast, it is held that most economic situations are composites of both competition and monopoly, and that, wherever this is the case, a false view is given by neglecting either one of the two forces and regarding the situation as made up entirely of the other. This seems to be a very simple idea. Indeed if one is not quite set in the way of thinking which involves mutual exclusiveness, it is grasped at once. Its inherent reasonableness was never better expressed than by a student who observed to me after class, "Chapter IV is easy — you don't say anything in it."

My own observation on Chapter IV, however, would be quite different. Its title is "The Differentiation of the Product." It is by all odds the most difficult chapter of all, and the reason is not far to seek. It contains, not a technique, but a way of looking at the economic system; and changing one's economic *Weltanschauung* is something very different from looking into the economics of the individual firm or adding new tools to one's kit. I shall show in a moment that even in Mrs. Robinson's Imperfect Competition there seems to be no concept of a blending of competition and monopoly.

The dichotomy appears to be as distinct here as it is in Pigou, Marshall, Taussig, or John Stuart Mill.

The weight of the tradition that monopoly and competition are mutually exclusive alternatives is a heavy one indeed, and one may well despair of gaining really serious recognition for the idea that actual situations are typically a combination of the two — recognition which will go so far as to accept some appropriate theoretical structure in which both elements find their place. Especially is there misunderstanding about the nature of this theoretical structure. Because it uses a monopoly technique and brings into the picture what competitive theory leaves out entirely — the elements of monopoly actually present in any situation — it has been regarded by some with alarm as a swing too far in the direction of monopoly. Combined with the notion that where there is monopoly there is no competition, this easily develops into an accusation that the theory leaves competition out of the picture entirely. Such seems to be the view of Professor J. M. Clark, when he says, "Theorists have often said that typical industrial situations 'contain elements of monopoly'; and recently there has been a tendency to go farther and draw the boundary line so as to classify as monopoly all situations which do not have the characteristics of 'pure' or 'perfect' competition, thus placing virtually all industries in the 'monopoly' classification." Reference is then made to the books of Mrs. Robinson and myself.[2] Now no one has done anything of the kind. To say that each producer in an industry has a monopoly of his own variety of product is not to say that the industry is monopolized. On the contrary, there may be a very intense competition within the industry, not of the sort described by the theories of pure competition to be sure, but different by virtue of the fact that each producer has a monopoly of his own variety of product. Thus every monopolist faces the competition of substitutes, and it becomes clear at once that monopolistic competition embraces the whole theory of monopoly. But

2. NRA Report on the Basing Point System in the Iron and Steel Industry, p. 59.

it also looks beyond, and considers the interrelations, wherever they exist, between monopolists who are in some appreciable degree of competition with each other. However great the degree of competition, it can be fully recognized by a demand curve (a) appropriately elastic, and (b) appropriately located with reference to the cost curve. It is here that the superiority of approaching the problem through the theory of monopoly rather than through that of competition is at once apparent.[3] The theory of competition, by its very nature, eliminates the monopoly elements completely, thus erasing a part of the picture and giving an account of the economic system which is so false that in most cases it could not even be called an approximation to it. The theory of monopoly eliminates nothing. It brings into the picture monopoly elements hitherto neglected, and, by an extension to include the interrelations of groups of producers, gives full recognition to whatever competition and whatever monopoly may be present in any particular situation.

In the literature of the subject, altho the term "monopolistic competition" is frequently used, there is an unmistakable preference for "imperfect competition." The explanation is not difficult. First may be mentioned a certain spiciness in the phrase itself. If books on etiquette had always been entitled "Perfect Behavior," one could hardly think of a more alluring title for a variation on established manners than "Imperfect Behavior." But probably a much greater factor than this in the wider use of "imperfect competition" is that it involves no more than an explicit recognition that actual competition is imperfect, which anyone would always have admitted anyway. The term is purely negative. Competition and monopoly go their ways without the least overlapping, and interference with one's categories of thought is held at a minimum. Thus "imperfect competition" has

3. Professor Knight states the case clearly ("Cost of Production and Price Over Long and Short Periods," Journal of Political Economy, Volume XXIX, at p. 332, reprinted in The Ethics of Competition and Other Essays, see p. 213). Incidentally, it was an oversight that this reference was not included in the bibliographical note, Monopolistic Competition, p. 69.

undoubtedly contributed and will contribute a great deal to perpetuating competition and monopoly as mutually exclusive categories.[4]

"Imperfect" and monopolistic competition have been commonly linked together as dealing with the same subject. Their elements of similarity seem to be adequately[5] appreciated; their dissimilarities hardly recognized. Mr. White presents,[6] in addition to a useful summary of the theories themselves, a discerning analysis of some of the differences in scope and treatment. In adding what appears to me to be a fundamental difference in conception of the problem, I am quite aware that many will not share my conviction of its importance, but will see involved only a question of terminology. I submit, however, that there is no evidence (at least that I have been able to find) that Mrs. Robinson thinks of monopoly (in its ordinary sense) and competition in any other way but as mutually exclusive.[7] If I seem to exaggerate at all the importance of this difference in conception between us, it is because I have become convinced that it is the key to an understanding of many other differences in treatment of the problems involved. Among the matters clarified by crediting Mrs. Robinson with the conventional dichotomy might be mentioned: most of the article "What is Perfect Competition?", which takes on new meaning when read with this interpretation in mind — for instance, her discussion of the issue as between "pure" and "perfect"

4. Mr. White comments (loc. cit., p. 643): "Not only does this terminology [the triad of perfect competition, imperfect competition, and monopoly] disguise the essential features of the theoretical re-orientation, it actually contradicts the premise that competition and monopoly are mutually compatible rather than mutually exclusive." The explanation is not difficult when it is realized that Mrs. Robinson has no such premise.

5. Even more than adequately. I have seen references to Monopolistic Competition for a treatment of matters discussed only by Mrs Robinson, and vice versa.

6. Loc. cit.

7. They are not mutually exclusive, to be sure, according to her definition of a monopoly as an "individual firm": individual firms are quite compatible with competition. The real problem of compatibility arises only when monopoly is defined in its usual sense of control over supply.

competition, her rejection of "product differentiation," and her broad definition of a "commodity";[8] in Imperfect Competition, her separate chapters on "Monopoly Equilibrium" and on "Competitive Equilibrium"; her treatment of profits, discussed below; and her analysis of "exploitation," also discussed below. It seems worth while, then, to look into Mrs. Robinson's analysis of the nature of competition and monopoly and of their relations to each other.

On pages 4 and 5 of Imperfect Competition she considers the matter of gradations in substitutes. Her presentation of the facts is almost exactly like my own, but the conclusions are strikingly different. The possibility of arranging "actual cases in a series of which pure monopoly would be the limit at one end and pure competition at the other" she finds "tempting," but rejects it as involving insuperable difficulties. The comparison should be made here with Monopolistic Competition, pages 63 and 64, where this view is specifically embraced as the cornerstone of the theory. Mrs. Robinson seeks to define a "commodity" in order to define a "monopoly," and finds herself blocked by the possible variations in breadth of the definition. Thus she is turned back from an answer by the very answer itself. Apparently it is never seen that the familiar meaning of monopoly is perfectly satisfactory as soon as it is anchored to *any commodity whatever*, however broadly or narrowly defined, and is wholly consistent with competition between that commodity and others. And so it is to escape from imaginary difficulties that she is led to give the term "monopoly" a definition it has never had before or since, to my knowledge; it is made to refer merely to an individual seller. "Every individual producer has the monopoly of his own output — that is sufficiently obvious — and if a large number of them are selling in a perfect market the state of affairs exists which we are accustomed to describe as perfect competition."[9] The individual seller, then, *even under perfect competition*, is a "monopolist"! In the chapter on "Monopoly Equilibrium,"

8. Perhaps, also, her oft expressed feeling that my own treatment is "misleading," "not quite clear," "rather weak," etc.

9. P. 5

she says, "For the sake of simplicity the individual producer may be referred to as a *monopolist*,"[1] including within this chapter a discussion of the equilibrium adjustment for the individual firm under perfect competition. In Book IV, "The Comparison of Monopoly and Competitive Output," Mrs. Robinson defines "monopoly" in the usual way as the control over output by a single authority, and apologizes for such a definition in her summary on page 9, saying that "This title . . . is sanctioned by custom, and tho it is verbally inconsistent with the conception of monopoly *on which this book is based*, it would have been pedantic to avoid the use of it." (Italics mine.) There is no doubt, then, as to the meaning she attaches to the word "monopolist"— an individual seller under any circumstances whatever — and which she describes on page 6 as the "logical definition."[2] Barring her own peculiar definition, there is no monopoly whatever in Mrs. Robinson's conception of imperfect competition. Again, in the final chapter on "A World of Monopolies," she reverts to the conventional definition of monopoly as control over supply, but always with reference to an *industry*, never to the product of a particular firm within an industry.

In spite of the fact that Mrs. Robinson does not state a theory in which monopoly and competition are blended, it is possible, of course, that she would assent to it. Not so with Mr. Kahn, who has stated categorically that "It is to be understood that the phrase *imperfection of competition* does not carry with it any of those implications with which by tradition the word *monopoly* is associated."[3] This is of special significance, since, appearing two years after my own book, it may, perhaps, be taken as directed specifically against the view there set forth, and as a clear affirmation of the position which I am attributing to Mrs. Robinson. It should

1. P. 52.

2. In "logic" it might be likened to defining any single part in a play as a monologue, either rail of a railway track as a monorail, or the marriage relations of a polygamist with any particular wife as monogamy

3. "Some Notes on Ideal Output," Economic Journal, vol. xlv, p. 20.

be noted that Mr. Sraffa, to whose article[4] Mrs. Robinson acknowledges great indebtedness, takes no such position.

What, now, are some of the consequences of this difference in viewpoint? I shall consider only three points. The first has to do with profits. Within the "completely arbitary" boundary of a "commodity" or "industry," under imperfect competition, all profits are competitive to Mrs. Robinson.[5] It follows that, by defining "industries" rather broadly, the whole problem of monopoly profits can be made to disappear entirely. Contrast this with the view of profits which emerges from monopolistic competition: throughout the economic system are to be found profits arising from the control of the outputs of particular products (greatly affected, of course, by selling outlays and product variation), monopoly profits in the true sense that they would not be there if competition were pure. A theory of profits which adequately accounts for them has yet to be written.[6] When it is written, it seems that it can hardly fail to alter our views as to the relation between monopoly and the public interest.

The second point has to do with "competitive" norms. "Free enterprise"[7] has too long been loosely identified with "competition." In economic theory the identification has been with "perfect" or with "pure" competition. Yet it must be obvious that the outcome of free enterprise is most often not pure competition, but monopolistic competition. Commodities do not standardize themselves, and their natural heterogeneity is vastly increased by business men under "free enterprise," in their efforts to distinguish their commodity from others and to manipulate the demand for it through advertising. In other words, an essential part of free enterprise is the attempt of every business man to build

4. "The Laws of Returns Under Competitive Conditions," Economic Journal, vol. xxxvi, p. 535.

5. Imperfect Competition, Ch. 7 and 9

6. I do not myself pretend to have any such theory, having merely included in the cost curve of the individual firm whatever payments are necessary to obtain the resources it uses, including the services of the "entrepreneur."

7. In its sense of a general absence of government control. Clearly the term is not to be confused with "free entry," discussed above.

up his own monopoly, extending it wherever possible and defending it against the attempts of others to extend theirs.[8] There is no tendency for these monopolies to be competed out of the picture; on the contrary, they are as much a part of it as is the competition which restrains them. The explicit recognition that product is differentiated brings into the open the problem of variety and makes it clear that pure competition may no longer be regarded as in any sense an "ideal." In many cases it would be quite impossible to establish it, even supposing it to be desirable. Retail shops, for example, could not all be located on the same spot, and personal differences between actors, singers, professional men and business men could not be eliminated. But even where possible, it would not be desirable to standardize products beyond a certain point. Differences in tastes, desires, incomes, and locations of buyers, and differences in the uses which they wish to make of commodities all indicate the need for variety and the necessity of substituting for the concept of a "competitive ideal" an ideal involving some measure of monopoly. How much and what kinds of monopoly, and with what measure of social control, become the questions.[9] It is possible, but unlikely, that such a view will emerge from a theory of "imperfect" competition, in which no monopoly (in the ordinary sense) is recognized to be present.[1]

A final point has to do with one specific competitive norm. Mrs. Robinson defines "exploitation," with Professor Pigou, as a wage less than the marginal physical product of labor valued at its selling price,[2] and devotes a great deal of space to comparing the results under imperfect competition and under monopsony with this criterion. She shows that labor inevitably gets less than this under monopolistic competition,

8. Cf. Knight, The Ethics of Competition and Other Essays, pp. 291–292.

9. Cf. D. H. Wallace, "Monopolistic Competition and Public Policy," American Economic Review, Vol. 26, supplement, p. 77.

1. "Imperfect" competition suggests, rather, the removal of the imperfections. Cf., for instance, Imperfect Competition, pp. 284 ff.

2. Pp. 282–83.

since it is paid according to its marginal product multiplied by marginal revenue, which is smaller than its marginal product multiplied by price. The conclusion is, of course, that labor is "exploited" very generally, according to this definition.

Now it seems evident that not only labor, but *all* shares, receive under monopolistic competition less than the market equivalent of their marginal physical products, the reason being that the argument applied to labor could also be applied to *any* share, and that the total incomes for the factors composing any firm, computed according to the competitive criterion of marginal productivity, add up to more than the total revenue of the firm.[3] The fact that some one share receives less than its marginal product does not mean, then, that some other one receives more (as it would under pure competition); they *all* receive less, being paid, one and all, according to a different principle. Mrs. Robinson clearly holds this view for the individual firm, with the significant difference that she does not include entrepreneurial services as one of the factors.[4] To the entrepreneur is reserved the rôle of exploiter, a rôle which it is very easy to put off upon him in her analysis through identifying him with the firm.

This implicit identity of entrepreneur and firm runs throughout the argument. It is held (page 408) that "the marginal product of the entrepreneur to the firm has no meaning," for the evident reason that he is one and indivisible.[5] To say that "the size of the firm is uneconomically small" under imperfect competition is taken as synonymous

3. Cf. my essay "Monopolistic Competition and the Productivity Theory of Distribution," in Explorations in Economics, p. 237; and Mrs. Robinson in "Euler's Theorem and the Problem of Distribution," Economic Journal, vol. xliv (1934), p. 411 and passim.

4. "Euler's Theorem," p. 411. In note 1 she says that "in the present context cost is reckoned excluding profit."

5. In one brief recognition of the possibility that his services may be varied there is a curious attempt to preserve the indivisible unit. "When the entrepreneur's earnings vary with the amount of effort which he supplies to his firm the unit of entrepreneurship from the point of view of the industry is best regarded as a single entrepreneur doing that amount of work whose marginal cost to him is equal to its marginal product to the firm" (p. 409, note 2).

with saying that "the ratio of entrepreneurs to other factors is higher than that which would give minimum cost."[6] All that is meant really is that the ratio of *firms* to factors is higher than that which would give minimum cost. It seems to have been overlooked that the increase in the number of firms (under monopolistic as compared with pure competition) affects not only the number of entrepreneurs, but the number of laborers, of general managers, of plants, and of other factors as well. It is resources in general which are redundant (i.e., by purely competitive criteria), and *a priori* there is nothing to indicate which particular one, if any, is increased relative to the others.

As for the entrepreneur, the argument runs that he has an income in excess of the value of his marginal product to an "industry" because, if the entrepreneurial services employed in one firm were removed, and the other factors composing this firm distributed among the other firms, so that the number of firms was reduced by one, the economies resulting from a larger output per firm would act as an offset to the loss of entrepreneurial services and diminish accordingly the loss of product. Indeed, they might even be so great that the product would increase, thus indicating that the value of the marginal product of entrepreneurship in the "industry" was negative, a possibility which Mrs. Robinson suggests and Mr. Kahn develops at some length. The reasoning, however, applies not merely to entrepreneurship, but with equal force to any of the other factors. Any factor could be shown to have an excess of income over the value of its marginal product to the industry if, at the same time that a small quantity of it were removed, the resulting loss of product were offset by reorganizing the remaining resources in the industry (including entrepreneurial ability) on a more efficient basis through increasing the degree of standardization of the product and reducing the number of firms. In fact, however, the number of firms in the "indus-

6. P. 413. Mr. Kahn (loc. cit., p. 23), cites Mrs. Robinson's demonstration with approval and takes it as a starting point for a further analysis of entrepreneurial income under "imperfect" competition.

try" will be governed by the strength of the monopoly elements involved, and cannot be manipulated in this way. But the whole procedure is illegitimate anyway, because the change in the number of firms which *accompanies* the variation in the amount of a factor, and therefore affects the so-called marginal product, has no necessary connection with such variation at all. With respect to entrepreneurs, the argument no longer stands if we drop the assumption that varying entrepreneurs and varying firms are one and the same thing, and recognize that, in modern economic society, "entrepreneurship" seems to be as highly divisible and capable of being redistributed as any factor.

It would seem that, if entrepreneurship is taken to be divisible, there is no one left to assume the onus of "exploitation." Indeed the search for an exploiter appears as a misdirected effort arising out of the extension of a competitive criterion of exploitation into a field where it is rendered inappropriate by the presence of monopoly. Whatever may explain the extension in this case, it seems likely that purely competitive concepts and theories will be more readily applied to "imperfect" than to "monopolistic" competition. Where monopoly elements are present, failure to call them by name risks forgetting that they are there and falling into modes of analysis appropriate only if the problem is a competitive one.

EDWARD H. CHAMBERLIN.

HARVARD UNIVERSITY