pattern, patronage principle versus non-patronage practices, equal voting versus no-equal voting rule, etc.) are a priori hopeless: the variability of the external characteristics of cooperative aggregates is kaleidoscopic and infinite.

10. Since in all the aggregates of economic units all the economic functions are ultimately the economic functions of the associated economic units performed through the aggregate as their collective branch of collective department, all economic services of cooperative associations are performed at cost (one of the fundamental cooperative principles).

11. Because of the erroneous assumption that a cooperative organization is an enterprise (an acquisitive economic unit), most of the external structural characteristics of cooperative associations are misapprehended and misrepresented. This is particularly true with regard to incorporated associations of the Rochdale type:

a) Their capital stock is not entrepreneurial capital of a collective enterprise, but the sum of advances needed for financing anticipated transactions of individual members of the aggregate.

b) Their member-stockholders are not identical with the stockholders of the collective enterprises, i.e., they are not the fractions of collective entrepreneur but the representatives of their individual and independent economic units coordinated into an aggregate.

c) Their surpluses and deficits are not entrepreneurial residua (profit-loss) but accounts payable to or receivable from the member-active-participants (member-patrons) of the aggregate on their current transactions.

d) Their fund for patronage dividends purposes is not the profit of association, nor its income, but the sums either underpaid
to the members or (in case of deficits) overpaid to them on their transactions through association.

e) Their dividends on stock do not represent an entrepreneurial profit or any income of the association: they are the intra-aggregate interest reckonings among the members designed to restore a perfect proportionality of the advances (shares of capital) paid by each member and his volume of business done through the association.

12. None of such traits can be unreservedly used as an unerring test of a truly cooperative organization, since these traits only indirectly disclose the economic character of the cooperative aggregate. For instance, two such very popular tests as restricted dividends on stock or patronage dividends are only the technicalities of reckoning among the members and are used only in those cooperatives where there is a need for such technicalities. In those aggregates where a reasonably exact volume of business and, therefore, corresponding share of advanced capital for each member can be stated in advance, the dividends on stock are unnecessary, and in associations where exact and final reckonings with members on their transactions are possible at the moment of these transactions, the patronage dividends are superfluous and not in use. The only comprehensive and indisputable test of the cooperative character of organizations is their aggregate structure.

13. All the Principles of cooperation and particularly the Principles of Rochdale, if freed from the accumulated traditional misapprehensions, are perfectly compatible with the aggregate character of cooperative organizations and are its corollaries.

14. The most deceptive Principle of equal voting seemingly is in contradiction with the basic and irrevocable rule of proportionality innate in every aggregate of economic units; however, the equal voting is actually only a special case of proportional voting of an economically homogeneous membership, and homogeneity of membership is one of the foundation stones of stability and
viability of cooperative aggregates. An overwhelming majority of existing cooperative associations are the aggregates of homogeneous membership and, therefore, adopt the practice of equal voting; such equality, however, is a matter of fact, not a matter of principle. In those cooperatives where certain heterogeneity in economic position of members is unavoidable and can be successfully adopted in practice, the voting power of every member being proportional to his normal volume of business is actually non-equal; this practice, however, harmonizes with their cooperative (aggregate) nature.

15. The so-called pseudo-cooperative associations represent a chain of intermediary links between pure aggregates of economic units (associations of member-patrons) and pure acquisitive collective economic units (associations of member-non-patrons), i.e., collective enterprises. The process of such transformation of cooperative associations begins with admissance of non-member-patrons and consists in a gradual replacement of member-patrons by outside clientele. The degree of such replacement is a degree of pseudo-cooperative degeneration of the aggregates. Changes in structural and functional characteristics of the degenerating cooperatives (decline of patronage dividends, growing role of dividends on stock, tendency toward practice of voting by shares of stock owned, etc.) are only the external symptoms of this interesting and almost completely unexplored process. The term pseudo-cooperation is the specific term of the traditional philosophy of cooperation and should be abandoned, since it has no real and defensible economic meaning.

16. Traditionally, the cooperative associations were interpreted to be the specific organizations of economically weak groups of population. This sociological fallacy is untenable since the aggregates of economic units are actually embedded in all socio-economic strata of existing society. These aggregates of economic units on different sociological levels are widely different from many points of view, but they all have in common their cooperative (aggregate) form.
17. Productive cooperative associations represent a peculiar group of cooperatives. This type of association has always been a favorite type, supported by public opinion, by its socio-reformistic enthusiasts, by governments in various states, and by special subsidies, public and private. Despite this, and notwithstanding never-ceasing attempts to promote and organize such associations, they have not demonstrated any viability and still remain a lifeless theoretical scheme without any chance of realization in a surveyable future. From the point of view of the aggregate nature of cooperative formations, the scheme of productive associations is based on a distorted conception of enterprises organized into incredible aggregates.

18. No appraisals of cooperation could be included in the scope of this study and no appraisals of any kind are really possible with regard to the cooperative problem in its entirety. Being economic nonentities by themselves, the cooperatives only reflect the character and aspirations of their membership. Their members—usually fairly homogeneous groups—may belong to all sociological levels, have different racial, moral, political and other characteristics in common. All such differences directly or indirectly have a certain bearing on the character of their association and its cooperative ideals. The purposes pursued by the cooperatives may also vary widely even within kindred aggregates: such purposes may be beneficial or detrimental. With all such diversity the cooperatives have their identical aggregate form.

The analysis of the cooperative problem as a problem of theoretical economics made in this study led us to the conclusions just formulated. They are thought to be a somewhat belated, yet adequate answer to the question of the late President of the American Institute of Cooperation: "What have we got to do to be entitled to be considered cooperative?"
BIBLIOGRAPHY
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List of selected publications on the cooperative problem. Scope of the list was to select the publications representing all the trends and shades of interpretation of cooperation in existing literature: a representative character of the publication was the principal criterion used in considering items for inclusion in this list. Publications marked by asterisk are preeminently interpretative.


American Commission to Investigate and Study Agricultural Credit and Cooperation. Agricultural Cooperation and Rural Credit in Europe, 1913–1914.


*Anziferoff, A. N. Kooperacia v Selskom Khosaistve Germanii i Francii. (Cooperation in Agriculture in Germany and France.) Voronezh, 1907.

*Anziferoff, A. N. Centralanye Banki Kooperativnaho Kredita. (Central Banks of Cooperative Credit.) Kharkov, 1916.


Bertrand, L. *Histoirede la cooperation en Belgique.* Bruxelles, 1902.


*Bilimovitch, A. D. *Mesto kooperativov v riadu drugikh khozaistvennykh obrazovaniy.* (Place of Cooperatives among Other Economic Formations.) Annals of the Russian Institute of Cooperation, Praha, 1927.


Bocek, K. *Druzstevnictvi v zemich Slovanskich.* (Cooperation in the Slavonic Countries.) Praha, 1922.

Boggild, B. *Andelsmoelkereier.* Kobenhavn, 1887.


BIBLIOGRAPHY


Ch'en, Kuo Fu. The Cooperative Movement in China. Shanghai, 1933.


Cooper, H. P. The Significance of Farmers' Mutual Insurance. Amer. Coop. 1927, Vol. II.

Cooperative Wholesale Society, Ltd. Annals.

Cowden, H. A. Cooperative Oil Station. Amer. Coop. 1929, pp. 457–466.


*Cossa, L. *Economia sociale*. Milano, 1899.


*Elsworth, R. H. *The Story of Farmers’ Cooperatives*. Farm Credit Administration, Circular E–23. 1939.


Emelianoff, I. V.  *Koopativnya organizatsii sredi zemledeltzey.* (Cooperative Organizations among Farmers.) Praha, 1923.

*Emelianoff, I. V.  *Economicheskaya priproda kooperativnych organizatsiy.* (Economic Nature of Cooperative Organizations.) Praha, 1924.

*Emelianoff, I. V.  *Koopativnaya Organizatsia kak objedinenie khozaiistv.* (Cooperative Organization as an Organization of Business Units.) Praha, 1924.

*Emelianoff, I. V.  *Koopativnoye Objedinenie kak predpriyatie.* (Cooperative Organization as an Enterprise.) Praha, 1925.

*Emelianoff, I. V.  *Koopativnoye Objedinenie i Kartel.* (Cooperative Organization and Cartel.) Praha, 1926.

*Emelianoff, I. V.  *Zakonomernosti v geographicheskym raspredelenyi kooperativnogo dvizhenia.* (Uniformities in Geographical Distribution of Cooperative Movement.) Praha, 1927.

*Emelianoff, I. V.  *Teoreticheskaia postanovka kooperativnoi problemy.* (Theoretical Aspect of Cooperative Problem.) Praha, 1929.


Faber, H.  *Cooperation in Danish Agriculture.* London, 1918.


*Fay, Ch. R.  *Cooperation at Home and Abroad.* London, 1925.


*Fetrow, W. W. Cooperative Marketing of Agricultural Products. Farm Credit Administration, Bulletin No. 3. 1936.

*Filley, H. C. Cooperation in Agriculture. N.Y., 1929.


*Gide, Ch. La cooperation. Paris, 1900.


*Grabein, M. Wirtschaftliche und sociale Bedeutung der landlichen Genossenschaften in Deutschland. Tübingen, 1908.


Hertel, H. *Andelsbevoegelsen i Denmark.* Kopenhagen, 1917.


Herm, G. *Die volkswirtschaftliche Bedeutung der Kartelle in Deutschland.* Hamburg, 1927.


*Ivanoff, D. N. K voprosu o prirodse kooperacii.* (On the nature of cooperation.) Annals of the Russian Institute of Cooperation. Praha, 1925.


*Jahrbuch d. allgemeinen Verbandes d. auf Selbsthilfe beruhenden deutschen Erwerbes — und Wirtschaftsgenossenschaften, 1898-1917. Since 1917 under the title Jahrbuch des deutschen Genossenschaftsverbandes.*


Jones, B. *Cooperative Production.* Oxford, 1894.

*Jones, J. W. Membership Relations of Cooperative Organizations.* Farm Credit Administration Bull. No. 9, 1936.


*Kossinsky, V. A. *Uchregdenia melkaho kredita v Germanii*. (Institutions of Small Credit in Germany.) Annals of the Imperial University in Moscow. Moscow, 1901.


*Liefmann, R. *Zur Theorie und Systematik der Genossenschaften*. Schmoller’s Jahrbuch, Jg. 51, Heft 1, 1927; SS. 103ff.


Loria, F. *Sociedades cooperativas*. Mexico City, 1918.

Mann, L. B. *Cooperative Marketing of Range Livestock.* Farm Credit Administration, Bull. #7, 1936.


*Messedaglia, A. *L'economia politica in relazione colla sociologia.* Roma, 1891.

Metzner, M. *Kartelle und Kartelpolitik.* Berlin, 1926.


Müller, H. *Die Schweizerischen Konsumgenossenschaften.* Basel, 1926.

Müller, H. *Geschichte der internationalen Genossenschaftsbewegung.* Halberstadt, 1924.


Nourse, E. G. Fifty Years of Farmers' Elevators in Iowa. Iowa Agricultural Experiment Station, Bulletin No. 200. Ames, 1923.


*Pantaleoni, M. Esame critico dei principi teorici della cooperazione. Giornale degli economisti, 5,1898.


*Passadaro, E. L. L'Ordinamento economico e giuridico delle societa cooperative*. Milano, 1900.


*Pienzas Hurtado, J. M. El movimento cooperativo*. Madrid, 1890.


*Prokopovitch, S. N. Kooperativnoe dvizhenie v Rossii; eho teoria i practica* (Cooperative Movement in Russia; its Theory and Practice.) Moscow, 1913.


*Rabbeno, Ugo. La Cooperazione in Inghilterra*. Milano, 1885.

*Rabbeno, Ugo. La società cooperative di produzione*. Milano, 1889.


*Raiffeisen, J. Die Darlehmkassen. 1883.


*Rossi, A. Del credito popolare nelle odierni associazione cooperative. Firenze, 1880.


*Scherma, G. Studio sull carattere economico della cooperazione. Palermo, 1913.


*Sinding, Th. Fabriksamvirket. Oslo, 1917.


*Tugan Baranovsky, M. I. *Socialnya Osnovy Kooperacii.* (Social Bases of Cooperation.) Berlin, 1922.


*Tuttle, Ch. B. *New Cooperative Order.* Chicago, 1918.


*Valenti, Ghino. *Cooperazione rurale.* Firenze, 1902.

*Valenti, Ghino. *L'associazione cooperativa contributo all' teoria economica della cooperazione.* Modena, 1902.

THEORY OF COOPERATION


*Vandervelde, E. *La cooperation neutre et la cooperation socialiste.* Bruxelles, 1912.

*Vega, S. *La teoria economica della cooperazione.* Napoli, 1907.

*Verdier, F. *Le movement cooperatif et le socialisme.* Toulouse, 1903.

*Vigano, F. *La fratellanza umana.* Milano, 1873.


*Wartner, R. *Das Bildungswesen der Genossenschaften.* Habelstadt, 1927.

*Watkins, G. S. *Cooperation, a Study in Constructie Economic Reform.* Urbana, 1921.


Welden, W. C. and Stitts, T. G. *Cooperatives in Four Ohio Markets.* Farm Credit Administration Bull. No. 16, 1937.


*White, W. L. *Cooperative Retail Buying Associations.* New York, 1930.


*Whitelock, A. *Cooperation, the Sure Way to Wealth by Labor is by Business Cooperation.* Port Chester, 1881.


*Wollemborg, L. *La teoria della cooperazione*. Giornale degli economisti. 11, 1887.

*Wygodzinsky, W. *Das Genossenschaftswesen in Deutschland*. Berlin, 1911.