Systemed Studies on Opinion Polling: Volume 1

By
Stuart C. Dodd

Compiled and Edited
By
Burt Webb

Systemed Studies on Opinion Polling:
Volume 1

Published by

Dodd Memorial Library

Stuart C Dodd Institute for Social Innovation

Third Edition

Draft 2

November 2012

Table of Contents

Overview of Book

This book was originally intended to be one of a set of four themed volumes covering the life's work of Dr. Dodd for publication by an academic publisher around 1970. Unfortunately, the project was cancelled. This is Volume 1 of Dodd's collected papers on Opinion Polling.

Notes on Articles in Systemed Studies on Opinion Polling

written by Dodd for Christopher's rewriting

The format of each of the 42 Prefaces to the 42 articles of this Volume 3 was agreed on to comprise four sorts of paragraphs (though the last three may be flexibly merged, omitted, or otherwise treated within and between sets of articles).

i.e., 1) an Abstract of the article, labeled as "Abstract," in 100-200 words;

2) Sentences placing the article (with hindsight) within the eight-factor transact formula,

B_{ir} = (A;P;T;V;W;L:M:C]

— noting the factors stressed in the five sections — and noting any relation to the Likability submodel

$B_{LK} = {}^{s}_{s}[\ (A_F;A_K;A_Di);P^P;T^{-1};(V);W;L;M;C]^{s}_{s}$;

3) any biographic comment, date of article, etc.;
4) any evaluative, or other, comment 8CC may want to write.

For procedure in writing up, I would advise preparing abstracts first at least for each section. Then write up the other paragraphs for each article or section of articles. Finally, write the general preface to Volume 3 so that it grows inductively out of the summarized articles as a synthesis of your comments (and mine here) in general.

I would like to have the general preface to the volume include:

a) Its place among the four volumes of Systemed Studies on Human Transactions. This can be briefly noted since my Preview to the four volumes will be repeated in each volume.
b) Note that "polled opinion" is speech behavior (or symbolic interaction) measured by polls and so is a transact or "recorded act-in-context." It's a subcase of my Methodological Transact Theory which says: "Insofar as Transact A and later Transact B match features, in just so far A predicts B," etc. The eight transfactors, especially Wordings, W, and the four-corner scripts or facets; especially the zero exponent (cite articles in other volumes), all apply here. I'd like to develop the Transact Model as an explicitly predictive and controllative theory and more than a classification scheme.
c) Note that polling is methodology, the observer's behavior, i.e., the scientist's transaction.
d) Note that the Likability Theory is an amplifying of transact theory and so should cover or subsume both "opining" and "polling" behaviors. Does it? Invite the reader to test this hypothesis.

The general preface might well run over the five sections (unless you prefer a Section Preface). Show how the topic of each focuses on specified transfactors.

Note that the classifying of articles under these headings is ex post facto and since all 150 articles are to be fitted in somewhere, some articles fit better than others. The first and last articles in each of the five sections are arranged generally to introduce and

summarize the section heading.

My biographic periods have been (this is too detailed--as you requested)

1900 Oct.3	Born in Tales, Turkey. (My father was a medical missionary.)
1905-6	First grade in Montclair, N.J. (Parents on furlough in U.S.)
1906-13	Finished 8th grade in Turkey (Father taught me Arithmetic; mother all other subjects)
1913-17	High school, Montclair
1917-18	Tutored a paralytic boy to start earning my way through college 1918-22 Princeton, BS, BK, MA, and Ph.D.
1922-23	Psychologist, State Home for Boys
1923-26	MA & Ph.D. Princeton
1926-27	London Karl Pearson and C. Spearman Rockefeller Fellow
1927-47	Prof. of Sociology, American University of Beirut (AUB)
1929-47	Director, Social Science Research Section at AUB
1943-44	Director of Surveys in Sicily AFHQ Lt. Col. and later in London
1947-71	Professor of Sociology, University of Washington, Seattle 1947-61 Director Washington Public Opinion Laboratory
1950-53	Director Project Revere (Diffusion Experiments for Air force) June 1971 Retired

Also see my vita, 12 Who's Who's etc., and Article #39.

Section 1 on World Polling

The first seven articles on World Polling developed out of World War II pressures on me — and opportunities also. On Christmas day of 1942, I returned from the U.S. to Beirut via Australia to find a request and a research opportunity awaiting my arrival. I had left Beirut eighteen months earlier when the Nazi take over forced American of military age out of the country or go into concentration camps. The British Ministry of Information and American Office of War Information (O.W.I.) wanted me to try out the new instrument for gathering intelligence — polls — from whole civilian populations. Just how far would the Arab populace, largely opposed to British and French colonialism, help or hinder the Allied war effort in specific ways and areas? How much would polled respondents, when suspicious and often hostile, lie to the poller takers? Our success in measuring such living and demonstrating the value of polling generally, in Lebanon, Syria, and Palestine in 1943 (reported in Polling S in Syria, Government of Palestine Press, 1943) resulted in an urgent telegram from General Eisenhower's Headquarters in Algiers for me to go there to organize surveys in Italy as the Allies progressively took over. Our polls helped so dramatically in Sicily to resolve a rationing breakdown and a Mafia crime wave that my next assignment was to plan the post-war uses of polling in reconstructing war ravaged societies. This aim grew into planning for measuring international opinion in the future operations of organizations, then existing only as early blueprints, but later known as the United Nations and UNESCO. In 1943 I developed the dream of a Barometer of International Security to help world decision making become progressively more integrated over the rest of the twentieth century. This was intended to help develop "One World."

Articles 1, 2, 3 and 6 tell of initial hopes and early progress reports on the Barometer. Article #4 proposed a set of measurable standards to help assure integrity, competence and accuracy when polling across diverse cultures and language areas. Thus, for example, international polling introduced new variables when translating the questions in common into several languages. I invented an operational index of fidelity of translation. The questionnaire of n words would be translated from Language A to Language B and then independently retranslated back to A and the percent of identical words computed in the initial and terminal versions of A.

In 1944 in London, I negotiated with over a hundred relevant officials of Allied governments up to cabinet levels, military generals, (Russian, British, French, Italian and American) and polling executives and mass media publicists to explore the Barometer project. We tried to build it into UNESCO's charter but Russian opposition thwarted that. Of the wartime polling agencies I helped set up, several continued such as the German Institute for Demoscopy — a word I coined for "observing people by sampling." Back at AUB in 1945 after my year's leave in the Army, I drew up the proposed charter for organizing the world's pollers in what became the World Association for Public Opinion Research — now an official non-government organization advisory to the UN — as one item in the Barometer. At the Central City (Col.) conference of pollers in 1946 I became co-chairman with George Gallup of WAPOR's organizing committee and served as its secretary for six years. In 1947, I came to the University of Washington to launch and direct the Washington Public Opinion Laboratory ("POL"), the first polling agency dedicated to pioneering in basic research in the Behavioral Sciences.

During this period, 1943-57, I published these articles:

#1. “Barometer of International Security” was a call to mobilize interest in an eventual world Barometer;

#2. "Towards World Surveys" reported developments through 1946 when I visited Seattle from Beirut as Walker-Ames Lecturer.

#3. "Steps towards a Barometer," reported progress in 1950 and

#4. “Standards for Surveying Agencies” proposed a set of measurable standards to help assure integrity, competence and accuracy when polling across diverse cultures and language areas.

#5. “Techniques for World Polling — A Review of the Methodological Literature for Cross-Cultural Surveys” In 1953 a three cornered contract with UNESCO, W.A.P.O.R., and P.O.L. gave me resources to survey the field of intercultural polling. The resulting volume developing the theory as well as the practices of polls (unpublished by UNESCO for lack of a budget) was summarized here.

#6. "The World Association for Public Opinion Research," reviewed the whole movement towards international surveys up to 1957.

#7 "Developing Demoscopes for Social Research" broadened the field of polling by

outlining "pan-sampling" of all pollable behaviors, "organization sampling," "world sampling," and "time sampling." In these four directions I developed my dimensional transact model's dimensions of the Acts of People in Location and Time as "Tr = f(APLT)."

Section 2 on Techniques of Polling

These 14 articles on "Techniques of Polling" contributed hardware and software innovations to the polling profession. Let me comment on each in a sentence or two.

#8 "The 'Steps-and-Parts' Model for Polling", an ASA paper in Denver, has been published only in pieces hitherto. I see it as a highly scientific theory of the polling process. For it describes polling so fully as to explain its stages, and predict their recurrence, and so control the whole process, whenever people want a poll enough to pay all costs involved. The article analyses any polling operationally and extensionally such as to resynthesize it and thereby restore that original polling and even enable improvement upon it. It develops a theory of methodology for all science, summarized in the three variable equation, A = a xoc. This implies the rule that: Only in so far as the observer's actions, a, are standardized to become an invariant factor will the variance of the speech acts to be observed, x, agree exactly with the variance of the observed data, A. This paper grew out of a "Manual for Surveying" I wrote in Sicily to help in training new staff and new agencies in occupied territories.

#9 "Dimensions of a Poll" Analyzes a poll into its standard dimensions in such detail as to permit a poller to plan and estimate costs and make bids on a future poll — let alone teaching the novice how to execute a polling operation. Note that both articles #8 and #9 (as well as the next three) were written in the early days of the POL at UW where I was both conducting polls and teaching students how to poll better in the future.

#10 "Sociomatrices and Levels of Interaction." I consider this to be my best contribution to methodological theory in Sociology. If Sociology is to study groups and organizations in human population, then the three-axis, or solid, matrix becomes the best operational definition of these three degrees of interaction and the best way of ordering data for exact or mathematical analysis and synthesis. I first introduced the sociomatrix into Sociology as a systematic reordering of Moreno's sociograms in Articles #? This article extends those two-matrices to three-matrices by including the third axis to provide for ordered rescoring of all role-acting and consequent organizational relations — the heart of Sociology. I predict that: "Insofar as sociologists in the future explicitly use the three-matrix with its variants and implications, in just so far Sociology will get on with becoming an exact science able increasingly to so describe Society as to explain, predict, and control it even better."

#11 "Predictive Principles for Polls." Here is a comprehensive treatment of the central aim of all science — to predict recurrence under recurring conditions. This is the acid test of all empirical science applied in detail to Behavioral Science and its subfield of Speech Behavior or Symbolic Interaction as sociologists prefer to call it. Incidentally this paper with its analyses of concepts, followed by twelve rules for predicting better, and a check

list of 82 chief predictor dimensions in polling gives an excellent review of my philosophy of scientific methods and its techniques of dimensional analysis up to 1951.

#12 "Scientific Methods in Human Relations" is a popularizing statement that I often use in my courses. Lundberg in his “Can Science Save Us” used to wish social scientists had as convincing evidence of the effectiveness of scientific methods in their field as physical scientists had in their field. This article offers several items of evidence in the early 1950's. The present set of four volumes of Systemed Studies on Human Transactions reviews just one author's contributions to such evidence among hundreds of thousands in the last two decades.

#13 "On Reliability in Polling" was a comprehensive theoretical analysis of polling reliability and a practical application with data under wartime conditions in Syria and Sicily. It answered effectively the crucial question of the top military, civilian and polling leaders: "How reliable are public opinion polls, or can they become under optimal administration, in semi-hostile wartime populations?" The outstanding findings from many indices and diverse populations was that while reobserving individuals gave only 63 per cent to 90 per cent agreement, reobserving plurals, or averaged responding in a population, gave a trustworthy 99 per cent of agreement. The averages of properly conducted polls seemed safe indicators of a public's attitudes and probable future behavior — in the situations studied.

#l4 "The Standard Error of a Social Force" antedated any wartime polling. It was carried while on furlough in the United States in 1935 with the help of a critical reading of my ms by S. S. Wilks of Princeton. It was based entirely on my inter-village hygiene data from A Controlled Experiment on Rural Hygiene in Syria. It innovated in developing rigorous error formulas for social forces. It also computed instances of them from censuses of whole communities in a primitive culture, but under our experimentally controlled conditions with a before and after design.

#15 "The Applications and Mechanical Calculation of Correlation Coefficients" This article and the next one report my inventing of a gear-wheel machine to graph and compute correlation coefficients and the first three moments of any distribution. In Graduate School on switching from Economics to Psychology, I found I needed to learn some statistics, especially, what a correlation was. So I immured myself in my room for two weeks to master Truman Kelley's Statistics even to the extent of sending its author a list of its misprints. From such intensive study, relaxed in sleep, the correlation machine subconsciously crystallized and arose luminous and almost whole on waking one morning. The Princeton Physics Department put their mechanic onto a working model, pictured herein. The Franklin Institute for research in Physics invited me to a banquet lecture which they published as my first publication. (1926)

An amusing item was an invitation to exhibit my correlation machine at the AAAS Convention in Washington that Christmas. Two gentlemen passed by and asked searching questions about its loss of accuracy through grouping the data. In reply, I explained how its inaccuracy would be less than 1 per cent according to Kelley's argument on page x — and after some further intricate discussion I found I was expounding this textbook to its author!

#16 "A Correlation Machine" was an invited article addressed to my fellow professionals in Psychology — also published in January 1926. This correlation machine next went into

an electrically driven model. The machine shop puttering on it in Trenton ran me $500 into debt before I panicked at the prospect of losing all my National Research Fellowship and livelihood and stopped work on it. Later, after our wedding my wife devoted her major wedding present check not to setting up our household but to bailing me out of debt. Then the Cambridge Instrument Co. undertook its development and sold models to Harvard, Berkeley, and Chicago labs before the stock market collapse of 1929 and ensuing depression stopped further manufacturing there. When I returned from Beirut in 1934, the IBM electric computers were making gear wheel devices obsolete and my correlation machine had become a technological dodo. In 1950, Sam Stouffer told me Harvard's copy might as well rust on my storage cupboard as in a Harvard attic and shipped it to my polling laboratory as an historic fossil.

Twenty years later, and IBM official phoned in "out of the blue sky" to inquire about "the Dodd Correlator." They wanted to mount it in their permanent exhibit of "The History of Computers" in their new head-quarters skyscraper, then going up in central Manhattan. Had I a model of it? Could he come to Seattle to see it? On negotiating about their embalming of it in their Exhibit, I told him its history. Whereupon he wrote me a check to reinstate our wedding present forty years deferred.

#17 "On Predicting Elections or Other Public Behavior" This paper discusses three measurable and largely preventable types of error in any polling which accounted for the polls mis-predicting the US 1948 presidential election. In that election all the polls except the newly founded Washington Public Opinion Laboratory (P.O.L.) predicted a sure victory for the Republican candidate, Dewey, whereas the Democratic candidate, Truman, won it. It was my Laboratory's maiden exploit and dramatically supported our Laboratory's use of more rigorous scientific methods than were then current.

#18 "A Call for Experimental Designs for Election Polling" Based on our 1948 success, we organized a symposium in the International Journal of Opinion and Attitude Research to plan improved designs for polling and testing the polls in the 1952 elections. This article sketched the basic methodology or polling design proposed and increasingly followed, for the future presidential and other political polls.

#19 "On Estimating Latent from Manifest Undecidedness" This article jointly authored by Kaare Svalastoga, now the Professor of Sociology at the University of Copenhagen, grew out of a question I asked him in this oral examination towards the Ph.D. degree. It sparked his thinking and the search for a fuller answer which was found in our data. A high percent of "Don't Know" or "Undecided" responses predicts (r> 9) instability or probable change of opinion (if reobserved in a second poll) among the decided subset of the polled population on that issue. An unusually large "don't know" percent indicates an unreliable prediction among the decided. It indicates that subsequent events can change the prediction. Herewith we have a useful item for pollers. A high percent of undecided voters in a poll indicates an unstable or unformed opinion which the trend with time can predict with greater refinement. Had this been known and applied in the 1948 U.S. elections more of the polls could have predicted the out-come more accurately.

#20 "Research Note on the Law of Forecast Feedback" This research note suggests how better theorizing, if pollably stated, may improve the predicting of human mass behavior. A hypothesis (miscalled a law) of "forecast feedback" claimed that: In a situation of

evolving opinion the feeding back of a published forecast of its outcome would affect that evolving "unpredictably." Our likability theory changed the hypothesis to expect predictability and specified it in testable terms.

#21 "The Momental Models for Diffusing Attributes" This invited article in the Indian quarterly, Darshana, describes the moments family of diffusion curves that explain and predict the stochastic processes called the normal, exponential, and logistic laws.

These diffusion curves were the outcomes of our P.O.L.'s massive experimental research called "Project Revere," executed for the U.S. Air Force, 1939-53. It combined applied research to guide the Air Force in leaflet-dropping operations with pure research to induce and test mathematical models for diffusing of items through a population. The moment laws described here develop the elementary theory of diffusing an item through a population or of one way communicating. Communicating in turn is a factor process in every social process or organization. It seems the elementary dynamic unit of society.

Section 3 on Semantics in Polling

The six articles, or studies, in Section III on Semantics in Polling focus on the Wordings factor, W, in the overall 8-factor formula for any human transaction,

$$B_{LK} = {}^{s}_{s}[\ (A_F;A_K;A_Di);P^P;T^{-1};(V);W;L;M;C]^{s}_{s}\ ;$$

Transactions that focus on interactions of people with words or symbols are usually spoken of in Sociology as the field of "symbolic interaction." Though not in the current main stream of symbolic interaction, represented by writers like Skinner, Homans, etc., these articles contributed to its dimensional current that develops formal standardizing factors and universal facets of symbolic interaction. Thus the author would classify the six articles here by their semiotic power facet as follows:

W^O = Qualitative Wordings chiefly
e.g., Article #22 on "Public Opinion Definitions" helps to standardize concepts in polling.

W^I = Quantitative Wordings Chiefly
Here Article #27 "Note on an Index of Conformity" develops a quantitative core index for conforming transactions;
and Article #24 "A Comparison of Scales for Degrees of Opinion" refines some quantifying in opinion polling — the general theme of this volume.

W^{II}= Relational Wordings Chiefly
Here Article #23, "The Interrelation Matrix," first proposed the now widely used sociomatrix tool for ordering, measuring, and mathematizing increasingly the pair relations between persons that form the basic elementary "interact units" of all communities and of human society.

Article #26, "The Coefficient of Equiproportion" proposed a new and more exact measure of hierarchic relations among intercorrelated variables.

W^{III}= Systemed Wordings Chiefly

Here Article #25, "A Simple Test for Predicting Opinions from their Subclasses" innovated in charting a logico-statistical system of concepts, indices, and harmonizing relations among them. These measurably furthered the central aim of scientists to predict recurrences under recurring conditions.

These six articles, though written over a span of a quarter century, can yet be integrated with hindsight by the transact models facets. The post-superscript, 1^{s}, or semiotic exponent, classifies them as contributing to the polling of opinions of the qualitative, quantitative, relational and systemed levels of complexity in symbolic interaction. These four levels of increasing complexity or organization are Kant's "categories of the understanding" (though the last shifts Kant's "modality" to the more operational "systemed" concept). These four semiotic levels can be systemed in a series of rising dimensionality in semantic n-space. They can be symbolized operationally by matrices of n axes as illustrated in Article #10 here which spells out the four levels of increasing complexity for the population factor (see below).

These four semantic power levels are derived and defined by successive and cumulative rounds of reitering as named in each row of the table below. This table reviews these four power levels in their more common syntactic and transactional versions.

Table 1 The Power Facet, X^s, of any Transaction Factor, X.

Reiterant Derivation Extensional language	Lay terms or corner-script Intensional language	Power Notation, Exponents, Post-super-scripts	Moments of any Distribution μ_0	Space Trans-Factor L^1	Population Trans-Factor P^p	Time Trans-Factor T^t
Listing into SETS	A Quality	X^o	$\mu_0 = \Sigma X^0/N = 1$	A Point L^0	A Person P^0 (=1)	A Date T^0
Adding into SUMS	A Quantity	X^I	$\mu_1 = \Sigma X^1/N$	A Line L^I	A Plural P^I	A Period T^I
Multiplying Into PRODUCTS	A Relations	X^{II}	$\mu_2 = \Sigma X^2/N$	An Area L^{II}	A Group P^{II}	A Correlation of time series T^{II}
Multiplying Into POWERS	A System	X^{III}	$\mu_3 = \Sigma X^3/N$	A Volume L^{III}	An Organization P^{III}	A System of 3t time factors T^{III}

The power facet has a versatile capacity to order and systematize transaction factors and human speech or symbolic interaction generally. Its application to classifying these six articles of Section III on Semantics in opinion polling is only a sample of its usefulness. (See Article 1 in Vol. 2 and Articles 20 and 39 in Vol. 4 for fuller explanation of transaction factors and facets.)

In later articles on the Reiteration Rule and the Reiteratings Matrix we shall see how every symbol man uses and all mental life expressible in symbols can now be analyzed and improvingly re-synthesized in terms of elemental reitering speech operations. A large causal factor in the progress of modern inductive science seems due to the use of extensional thinking — the language of set theory. I see increasing use of reitering sets of symbols or opinion elements as the on-coming revolution in the behavioral sciences including all its symbolic interaction and polling subfields.