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Source: *Child Development*, Vol. 10, No. 2 (Jun., 1939), pp. 73-89
Published by: Wiley on behalf of the Society for Research in Child Development
Stable URL: https://www.jstor.org/stable/1125471
Accessed: 02-10-2025 04:44 UTC

THE MEASUREMENT OF DOMINATION AND OF SOCIALLY INTEGRATIVE BEHAVIOR IN TEACHERS' CONTACTS WITH CHILDREN

HAROLD H. ANDERSON[1]

This study reports the extension into adult-child relationships of measures of domination and of socially integrative behavior that were developed in previous studies of the interplay of preschool children.[2]

What is dominative behavior? And what behavior is socially integrative? The terms in the title of this paper are merely convenient labels for two techniques of behaving that have been experimentally demonstrated to be psychologically different. In the initial investigations it was assumed for example that there is a psychological difference between snatching a toy out of a companion's hands so as to play with it oneself and asking the companion if one may borrow the toy for awhile. It was assumed that there is a psychological difference between a command and a request, between "tellin' 'em" and "eskin' 'em."

The use of force, commands, threats, shame, blame, attacks against the personal status of an individual are called dominative techniques of responding to others. Domination is characterized by a rigidity or inflexibility of purpose, by an unwillingness to admit the contribution of another's experience, desires, purposes or judgment in the determining of goals which concern others. Domination is behavior that is based on a failure to admit the psychological inevitability of individual differences. Domination stiffles differences; domination attempts to make others behave according to one's own standards or purposes. Domination obstructs the natural growth processes of further differentiation through the interplay of existing differences. Domination is, therefore, antagonistic to a concept of growth. Domination is consistent with a concept of self-protection. But growth is self-abandoning; it is a giving up of the present structure or function, a yielding of present concepts, standards or values for new structures, functions, concepts, standards or values that are in process of emerging. Self-preserving, however necessary it may be under circumstances of extreme insecurity, is something decidedly less than growth at its optimum. Domination may therefore be said to be the behavior of a person so insecure that he has to be self-protective rather than self-abandoning, that he has to maintain a status quo rather than voluntarily enter and participate in a changing situation. Domination involves force or threats of force or of some other form of the expenditure of energy against another. Domination is behavior of one who is so insecure that he is not free to utilize new data, new information, new experience. Domination is an attempt at atomistic living; the desires, purposes, standards, values, judgment, welfare of others do not count; it is rugged individualism of a highly ingrowing order. Domination is the antithesis of the scientific attitude; it is an expression of resistance against change; it is consistent with bigotry and with autocracy. It is the technique of a dictatorship.

If, instead of compelling the companion to do as one says, one asks the companion and by explanation makes the request meaningful to the other so that the other can voluntarily cooperate, such behavior is said to be an expression not so much of pursuing one's own unique purposes as attempting to discover and get satisfactions through common purposes. For such expenditure of energy in common

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This paper was presented at the meetings of the American Educational Research Association, Cleveland, Ohio, February 27, 1939.

[2]*Anderson, Harold H.: An experimental study of dominative and integrative behavior in children of preschool age. J. Soc. Psychol., 1937, 8, 335-345.*

Anderson, Harold H.: Domination and integration in the social behavior of young children in an experimental play situation. Genet. Psychol. Monog., 1937, 19, 341-408.

purposes, for an attempt to reduce instead of augment or incite conflict of differences the term integrative behavior is used. The person who can change his mind when confronted with new evidence which has grown out of the experience of another is said to be integrating differences. Integrative behavior as the term is used here is consistent with the scientific point of view, the objective approach. It designates behavior that is flexible, growing, learning.

The term integration is not used here as it has been used by some in contrast with differentiation. It is believed that the two processes are inseparable and are merely different aspects of the same psychological or biological phenomenon. With the integration of differences something new is created that never has existed before; this emergence of originals through the integration of differences is itself a differentiation.

Integrative behavior is thus consistent with concepts of growth and learning. It makes allowance in one's own behavior for differences in others. It is behavior that makes the most of individual differences. Whereas domination stifles or frustrates individual differences, socially integrative behavior respects differences, advances the psychological processes of differentiation. Integrative behavior is flexible, adaptive, objective, scientific. It is an expression of the operation of democratic processes.

In addition to the assumption that domination and integration are psychologically different techniques of responding to others another assumption advanced at the outset in the experimental program was that domination and integration would offer different predictions of subsequent behavior. Both in the previously published research on the behavior of preschool children and in a recent study of domination and integration in the behavior of kindergarten children[3] data have offered only consistent evidence in support of the hypotheses that:

1. Domination incites resistance, which is itself dominative.
2. Integrative behavior induces cooperation or integrative behavior in a companion.
3. Domination is not only different from, but where a potential avenue of escape is left open, it is dynamically unrelated to integrative behavior.

It should be pointed out that there is no relationship short of the extermination of another individual that is entirely dominative and no situation in which the interplay is entirely integrative. But many situations arise in which the techniques of responding to others can be reliably said to be expressions of domination or of integrative behavior.

Aims. The purpose of the present study was to develop reliable techniques for recording in terms of dominative and integrative behavior the contacts which teachers have with kindergarten children.

Methods and procedure. It was expected at first that an experimental situation would need to be devised but it was shortly discovered that the teachers' contacts both with individual children and with the group occurred with such rapidity as occasionally to tax the abilities of the observers to record them.

With criteria already experimentally established for recording in terms of domination and integration social contacts of paired preschool and kindergarten children with each other it still was not easy to adapt these criteria to the contacts which teachers had with children. Preliminary observations were made in a number of different schools. The teachers were for the most part soft-spoken, attentive, patient; and considerate of the children. In a number of rooms there appeared to be a complete absence of commands or of other evidence of obvious domination in the teachers' responses to children. Teachers, to be

[3] *Anderson, Harold H.: Domination and integration in the social behavior of kindergarten children in an experimental play situation. Unpublished study reported in part in paper of same title read at the meetings of the Midwestern Psychological Association, University of Nebraska, Lincoln, Nebraska, May 5, 1939.*

sure, told children to do certain things and not to do other things. But all teachers do that. To do so in a casual sympathetic way may seem an inherent part of schoolroom procedure. The whole school curriculum is in a sense a systematic statement of environmental demands to be made on the child.

If a teacher in introducing the music period said, "I am going to sing you a song," it was felt that that was definitely a social contact with the group, and as such should be recorded. It was not clear at first whether it could be checked as dominative or integrative nor was it clear what difference it made what one called the contact. It was with much labor that the experimenters were able to devise criteria and arrive at definitions that would record reliably domination even if expressed in a "soft voice." It seemed that a key to the difficulty could be found by checking the teachers' remarks against the criteria of conformity by the child versus joint participation by the child or by the group. Did the teacher tell them or ask them? Did she base decisions on her own desires or judgment or did she allow some measure of interplay for the child's desires, the child's judgment?

It did seem as though for each isolated remark it made little difference whether the teacher told them that she was going to sing a song or asked them whether they would like a song or, if so, what song would they like to hear? It seemed logical to expect, however, that an accumulation of tallies that would record such simple differences would make a distinction between some teachers and others, that in some schoolrooms there would be a great deal or a preponderance of teachers' contacts in which the teacher told the children what to do, what she was going to do, or what the activities were to be. And on the other hand, it was conceivable that other teachers would have much lower frequencies of such techniques and might perhaps be found to be giving the pupils a proportionately higher number of opportunities to use their own judgments.

Domination in the present study includes social contacts in which the activity of the child or of the group is determined out of the experience or judgment of the teacher. Such a contact is psychologically different from the contact in which there is a democratic interplay, in which the determination of the child's activity comes from a broader experiental base that includes the judgment or choices of the child himself. The psychological assumptions are that the child "learns" less arithmetic if father does all his problems for him, and he grows less in other respects to the extent that the teacher decides what is to be done and how and when to do it. Telling them is assumed to be not only psychologically different from asking them, but in general it is assumed to be less propitious for growth, learning, and problem-solving.

The observation blank. An observation blank was devised to contain five minutes of observations. Each blank bore the identifying information showing the school, grade, section, date, observer and teacher and in addition the name of the activity in which the group was engaged, the time the observation period began and ended and the elapsed time of the observation period. The blank which was adopted after experimentation with two other forms is shown in Figure 1. It had the names of the children at the tops of vertical columns and the names of the categories of teacher contacts on the horizontal rows. The categories were arbitrarily defined for convenience in recording. It will be noted that there are no categories for numbers 11 to 14 inclusive. These numbers designated categories on previous experimental forms of the observation blank which were finally combined with other categories. Because the experimenters had memorized the other categories by number and by relative position on the blank, the numbers and original spacing were retained on the final observation blank. For aid in recording categories quickly two additional columns of guide numbers were inserted in the blank.

The schoolroom situation. From eight different kindergarten groups from

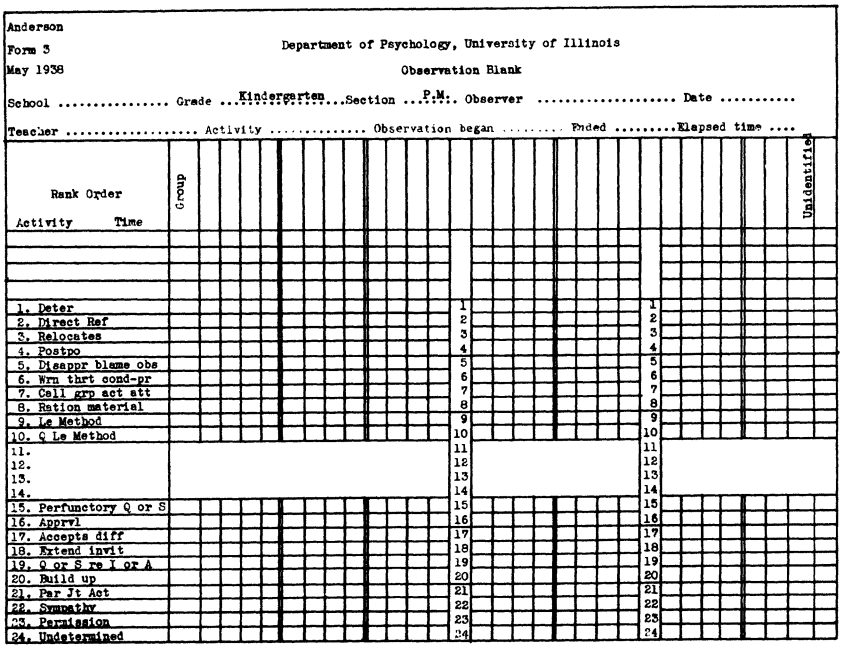

FIGURE 1

which data have been gathered findings are presented here for three groups: morning and afternoon groups of children from school X, both groups taught by teacher A and B; and a morning group from school Y taught by teacher C. In school X the head teacher, teacher A, took the leading rôle with the children much more frequently than did the assistant teacher, teacher B. The assistant had charge of the music period during which time most of the contacts of teacher B which entered the data were recorded.

Methods of observation. The observers were instructed to observe the teacher who was playing the major rôle with the children. The frequencies of teacher contacts thus represent those of the one teacher most active at the time but by no means all the contacts which the children received from both teachers during the observation period.

The observer marked the blank by placing in the child's column one tally for each contact which the teacher had with that child individually. If the contact was directed to the group rather than to an individual the tally was recorded in the "Group" column.

If the teacher made some contact with a child or with the group, but the nature of the contact was not clear, the observer recorded a tally under category 24, "Undetermined." If the nature of the category was clear, but it was not known with whom the contact was made, the tally was placed in the "Unidentified" column at the right-hand side of the blank. This column collected not only a few contacts which occurred when the observer for one reason or another failed to see or to hear, but a number of such partially disguised contacts as "Some little boy forgot to remember what we said about hands - or eyes - or feet."

Subjects. The subjects were fifty-five kindergarten children attending three groups. In general the children were superior in intelligence. In school X an attempt had been made to enroll younger children in the morning group. The enrollment in school X was twenty-three in the morning group, twenty-one in the afternoon group and in school Y, eleven. In the three groups the girls had the

respective numerical superiority of three, three and one as compared to the numbers of boys.

Definitions of the categories. The full titles of the categories together with examples of teachers' contacts which they include are given below. Actual observations of teachers' behavior constituted the basis on which each category was constructed and defined.

Categories 1 to 8 inclusive record dominative contacts of the teacher. Categories 15 to 23 inclusive record the teacher's integrative contacts. Categories 9 and 10 which had low frequencies were regarded as ambiguous hybrids, not clearly classifiable as domination or integration. It is believed, however, that the majority of contacts checked in category 9 belong more properly in the group of dominative techniques, and that contacts checked in category 10 would fall more properly among the integrative contacts.

The establishing of categories was an arbitrary matter of convenience in recording the teachers' contacts and also a means for a preliminary search for more refined analyses of teachers' behavior. Analyses of the data have been made to show the consistency with which two independent observers recording simultaneously were able to record teachers' contacts by categories. But in the treatment of the data to show the contacts of the teachers with the individual children and with the group all the dominative and all the integrative categories respectively are combined.

CATEGORIES

1. Determines a detail of activity or acts for the child in carrying out a detail.
   Includes instances where T (teacher), in order to rush through to an end, goes ahead and does things for the child.
   T: "You will have to fold yours like this."
   "We won't play that game any more."
2. Direct refusal.
   T: answers "No" to a direct request.
3. Relocating, reseating, or placing children in different relation to each other or to property, i.e., different from the relation which the children have themselves selected.
   T: "Henry, Janet, Sam, please sit down."
4. Postponing, slowing up the child.
   T: "Not now."
   "Wait just a minute."
   "Later on."
   Holds back the fast ones.
   Obstructs differentiation, originality, individual differences, variability within a group.
   T: "Betty Lou, go back and wait until I come around."
   "Wait at your place until I give you one."
5. Disapproval, blame, or obstruction.
   T: "Hurry up" implies disapproval.
   "I'm waiting."
   "One little boy - I don't see his eyes at all."
   Check "unidentified."
6. Warning, threats, or conditional promises.
   T: "I don't want to speak to Henry, Sam, and Janet again."
   "Now if we all sit nicely and keep our hands to ourselves, we might have two stories."
7. Call to attention or to group activity.
   Call to attention during group activity.

T: "Girls and boys --------."
T: "Let's see who is listening."

8. Rations material.
T. makes decisions as to amount, kind, etc., e.g. amount of paste, amount of grass for rabbit nests.
(Implication is that rationing of materials is psychologically more than an administrative convenience; it deprives the child of an opportunity to exercise his own judgment, to decide for himself how much it will take for the job at hand; and for this reason it is an expression of T. domination).

9. Lecture method.
T. gratuitously defines a problem or anticipates the question and gives the answer. (The "sez you" category).
e.g. T., passing out paper:
T: "The paper is to keep the paste off the tables."
(If there was a problem of keeping the paste off the tables, the children might have contributed from their experience in defining the problem, especially since only the children got paste on the table. As a matter of fact, the tables were made so paste could be washed off. Paste actually got on the tables, and as a later part of the routine a child with great enthusiasm did wash the tables after the children were through pasting).
T: "You won't need your scissors." (check #9)
(But) "Don't get your scissors." (check #1)

10. Questions: Lecture method.
Questions where the answers are in the back of the book or in the teacher's experience.
T: "What did the birdie say?"
If there is only one answer, then check #10.
If the child is permitted to give an imaginative answer, then check under #19 or #20.

11-14 inclusive deleted on the blank.

15. Perfunctory question or statement.
Indifferent "Thank you's."
T: "Isn't that interesting?" - a bare response, but a response nevertheless.

16. Approval. Includes rewards, prizes, competitive favors.
T: "I think that's fine."
"Billy's row is standing the straightest."

17. Accepts difference.
Observer must be alert for negative votes, declinings, expressions of difference, conflicts of difference. Whenever T. makes an offer or gives an invitation, and the child declines, some category should be checked for T's response: She either accepts the difference (#17); or she reproves (#5); or she renews her request (#18).
e.g.
T: "Jimmy, would you like to sing this one (song) up here? (beside T.)" Jimmy declines.
T. turns to another child.
(Check rank order for Jimmy, #18, Extends invitation; check the other child, rank order for #18; check Jimmy for #17, Accepts difference).

18. Extends invitation to activity.
T: "Who wants to be a pony?"

"Who would like to be a robin?"
Call for a show of hands. The choice rests with the children. It must be obvious that there is no element of exhortation and that a child can still decline. Under few circumstances will an invitation be made more than twice without obvious attempts to exhort; in which case check #1. A teacher's contact in category #1 cannot be declined without further exhortation or disapproval.

19. Question or statement regarding child's expressed interest or activity.
Carries no presumption of opposition, antagonism, disapproval or urging.
"Dickie, are you waiting for paste?"
"How are you getting along?"
Includes the ice-breaker conversation.
"Do you have a dog at home?"

20. The build-up. Highly integrative behavior.
Includes instances where T. helps child to arrive at a better definition of a problem or a better solution, without giving the final answer.

21. Participates in joint activity with children.
Offers help, offers to participate.
Children playing ball. Ball rolls over near T. who returns it.

22. Sympathy.
T: "I'm sorry you hurt your finger."

23. Permission: T. grants permission to child's request.
e.g. "May I get a drink?"
"May I pass the cookies?"

Since a series of research studies into different age levels and different situations is contemplated, the problem of reliability of two observers became an end in itself. A more extended analysis was made of the difficulties in recording than would have been undertaken if the objectives had been merely to study these particular schoolrooms.

The observers attempted to record at an appropriate place on the blank every "contact" which the teacher had with an individual child or with the group during the period of observation.

How reliably could the observers identify instantly and record the contacts in individual categories? How accurately could they assign these contacts to individual children or to the group? Could two independent observers record at the same speed? Could they agree in their definitions of a contact or would they come out with greatly varying numbers of tallies? Could they observe and record the contacts of one teacher more reliably than they could the contacts of another teacher? Could they observe dominative contacts more reliably than integrative contacts? These were some of the questions that have been answered in the analysis of the data.

Seventy-three pairs of consecutive and simultaneous records of five minutes each by observers M and N were analyzed. All the tallies on each observation blank were totaled and these totals correlated for the two observers. Table 1 gives the coefficients of correlation for separate combinations of observation periods showing respectively contacts of teachers A and B combined for the morning and again for the afternoon, contacts of teacher A for the morning and afternoon combined, and likewise for teacher B, and contacts for all of the seventy-three periods combined.

These high coefficients indicate that as far as the speed of recording was in question there was virtual identity in relative number of tallies recorded per observation period. This consistency of speed is shown whether the observations are for one teacher or the other; or whether they are made during the morning activities or during the afternoon program. These coefficients show also a

TABLE 1

COEFFICIENTS OF CORRELATION BETWEEN OBSERVERS M AND N FOR TOTAL NUMBERS OF CONTACTS PER OBSERVATION PERIOD FOR SEVENTY-THREE OBSERVATION PERIODS

Teacher	A & B	A & B	A	B	A & B
Session	A.M.	P.M.	A.M. and P.M.	A.M. and P.M.	A.M. and P.M.
r	.95	.96	.97	.96	.96
$P.E._r$	.01	.01	.01	.01	.01
N.	35	38	44	29	73

very high agreement between observers in using the definitions of a "teacher contact." Moreover, during these seventy-three periods covering five hours and forty-five minutes of simultaneous observation, observer M recorded 1,897 teacher contacts and observer N recorded 1,893.

Table 2 shows coefficients of correlation which indicate how reliably two observers recorded for individual children the dominative contacts, integrative contacts and total contacts of the teacher.

Ten coefficients of reliability of two observers for teachers' contacts with individual children for total numbers of contacts of all kinds were .87 or above, six of the ten being .94 or above.

Ten coefficients of reliability of observers for teachers' dominative contacts with individual children (categories 1-8) were .80 or above, six of the ten .93 or above.

The coefficients of reliability of observers of teachers' integrative contacts with individual children (categories 15-23) were based on lower frequencies and were low but consistently within a narrow range.

There was considerable evidence that in spite of the high degree of reliability of the two observers in recording total contacts of the teachers, the observers were at times unable to record the contacts at the speed with which they occurred. This would account in part for the lower coefficients of reliability for integrative contacts which by their nature must often be identified by their context, are therefore less specific and more difficult to record.

The most rigorous method of analyzing all the data for reliability of two observers in which teachers' contacts were correlated child by child and category

TABLE 2

COEFFICIENTS OF CONSISTENCY OF OBSERVERS FOR TEACHER CONTACTS PER CHILD WITH CATEGORIES GROUPED. (ONE TALLY ON THE SCATTER DIAGRAM REPRESENTS, e.g., TALLIES IN CATEGORIES 1-8 FOR ONE CHILD)

School	Teachers	Session	Groups of categories: Total contacts 1-24			Domination 1-8			Integration 15-23			Total time (min.)	Mean time of correlated periods (min.)
			r	PE_r	N	r	PE_r	N	r	PE_r	N		
X	A & B	A.M. & P.M.	.94	.00	688	.93	.00	574	.46	.03	271	342.5	4.69
	A & B	A.M.	.94	.01	319	.94	.01	259	.44	.05	111	155.5	4.44
	A & B	P.M.	.94	.00	369	.93	.01	315	.46	.04	160	187.0	4.92
	A	A.M. & P.M.	.89	.01	411	.84	.01	319	.48	.05	191	204.5	4.65
	B	A.M. & P.M.	.96	.00	277	.95	.00	255	.50	.06	80	138.0	4.76
	A	A.M.	.87	.01	197	.87	.01	148	.53	.05	91	99.5	4.52
	B	A.M.	.97	.00	122	.97	.00	111	.10	.23	20	56.0	4.30
	A	P.M.	.91	.01	214	.80	.02	171	.44	.06	100	105.0	4.77
	B	P.M.	.96	.01	155	.94	.01	144	.53	.06	60	82.0	5.13
Y	C	A.M.	.89	.01	131	.87	.02	114	.29	.08	66	65.0	5.00

by category showed for 1,560 squares on record blanks for school X a coefficient of .78; and for 378 squares on record blanks for school Y a coefficient of .77. These coefficients are sufficiently high to make the data in this study acceptable as measures of teachers' behavior.

Number of teachers' contacts per hour with individual children. The speed or rapidity with which teachers make contacts with children raises some pedagogical and mental hygiene questions. The complaint has often been made at home and at school that children are unable to concentrate, that they cannot carry on activities by themselves or hold to a given purpose without adult encouragement or stimulation. The complaint though frequently made is not very clearly formulated. Studies have been made of the attention span of preschool children and of others, but as yet there are no standards or criteria against which to evaluate either the performance of an individual child or that of a group. From experience in clinical psychology one has often suspected that children have been unnecessarily interrupted in their serious purposes by well-meaning adults. In some cases the "over-supervision" has been so unrelenting as to make it seem as though the child could do little or nothing by himself. In fact the greater amount of "free play" or freedom to inquire and to explore one's environment is one of the chief criteria by which the nursery school is distinguished from public school education.

But as to how much free play a child needs; how much supervision is a "good thing"; how many contacts with an adult a child should have; when supervision ceases and "over-supervision" begins; what mistakes and how many a child should be permitted to make without adult interference; - for answers to these questions there are only unreliable clinical generalizations. It is obvious that before one can speak reliably about "too much" he must first have units of measurement. This study constitutes an important first step in providing such units of measurement.

Table 3 shows the mean number of contacts per hour which each teacher had with individual children, the mean number of dominative and integrative contacts per hour and the total observation time in minutes on which are based the respective rates of contacts. The Domination-Integration ratio is obtained by dividing the mean number of domination contacts per hour by the mean number of integration contacts per hour.

It can be noted that the highest frequencies for all contacts for separate periods show for teacher A 421.3 contacts per hour; for teacher B 474.5 contacts per hour; and for teacher C 489.8 contacts per hour. When morning and afternoon contacts are added together and the means per hour per child computed, teachers A and B are nearer together in frequencies, showing respectively 401.3

TABLE 3

MEAN NUMBER OF INDIVIDUAL CONTACTS PER HOUR FOR TEACHERS A, B AND C

					Categories			
					1-24	1-8	15-23	
School	Session	Teacher	Children	Total Obs. Time (min.)	Total contacts	Domination	Integration	D-I ratio
X	A.M.	A	23	362.0	421.3	244.2	115.7	2.1
		B	23	98.5	384.4	278.4	55.4	5.0
	P.M.	A	21	352.5	380.8	210.4	97.5	2.2
		B	21	109.0	474.5	350.6	71.6	4.9
	A.M. and	(A		714.5	401.3	227.5	106.9	2.1
	P.M.	(B		207.5	431.7	316.3	63.9	4.9
Y	A.M.	C	11	440.5	489.8	292.4	126.3	2.3

and 431.7 contacts per hour. This represents for teacher A a rate of 6.7 contacts per minute for 11.9 hours of observation and for teacher B a rate of 7.2 contacts per minute over a period of 3.5 hours of observation, with the presumption in both cases that a considerable though undetermined number of contacts were unrecorded.

Another pedagogical as well as psychological problem is presented in the comparison of the teacher in school Y with the teachers in school X. There were twenty-three children enrolled in the morning session of school X and twenty-one enrolled for the afternoon. In school Y, however, there were only eleven children present during the period of observation for this study. It can be seen in Table 3 that for teacher C there are no great proportional divergences in frequencies of contacts as compared with the frequencies for teachers A and B who had larger groups of children. It can be noted that the rates of integrative contacts and of total numbers of contacts of teacher C exceed in all cases the rates for the teachers in school X while the rate of dominative contacts of teacher C exceeds all rates except for teacher B for the afternoon and for the combination of morning and afternoon.

Is one to draw an inference that teachers are themselves responding at a "capacity rate" whether they have one dozen or two dozen children in the room? Or stated in another way do teachers regardless of numbers of children before them respond at a fairly constant rate? These data raise a further question as to how many children constitute a teacher load. Were the children in school Y receiving twice as much "teaching" as the children in school X? The data show that the children in school Y had almost twice as many individual contacts per hour as did the children in school X. Again the question as to how many contacts are desirable pedagogically and psychologically must remain unanswered. All that can be said here is that in this study measures have been developed that indicate considerable differences in teachers' techniques.

It may be noted in Table 3 that in all cases the dominative contacts outnumber the integrative contacts by at least two to one and that in one case the ratio of domination to integration contacts is five to one. The contrast between teachers' dominative contacts and integrative contacts is shown graphically in Figure 2 which gives the respective frequencies per hour for individual teachers.

Five groups of data offered in Table 3 have been broken down to show the frequencies of contacts per hour which teachers had with individual children. These data are presented graphically in Figures 3 to 7 inclusive. Figures 3 and 4 show respectively for teachers A and B the mean number of contacts per hour which they had with each child enrolled in the morning group. A glance at these figures shows that as far as can be indicated by the frequency of the teacher's contacts per hour the individual children in this kindergarten live at school in different environments.

Figure 3 shows a range of total contacts of from 4.1 to 39.3 per hour, with the median child receiving 13.2 contacts per hour. The median child thus received about three times as many contacts per hour as the child lowest in rank and only about one-third the frequency of that of the highest child in rank order. The child at the top of the rank order received almost fifty per cent more contacts than the child who was next in rank.

The frequencies of dominative contacts show a range of 3.2 to 24.9 with the median at 6.5 dominative contacts per hour. The rank orders show generally small differences from child to child from the bottom of the list up to the fifth ranking child. The fourth child in rank, however, is about fifty per cent above the fifth in rank or almost twice the median.

The range of integration frequencies is from 0.7 to 10.7 contacts per hour with the median at 4.5. From Figure 3 it can be seen that the curve for integra-

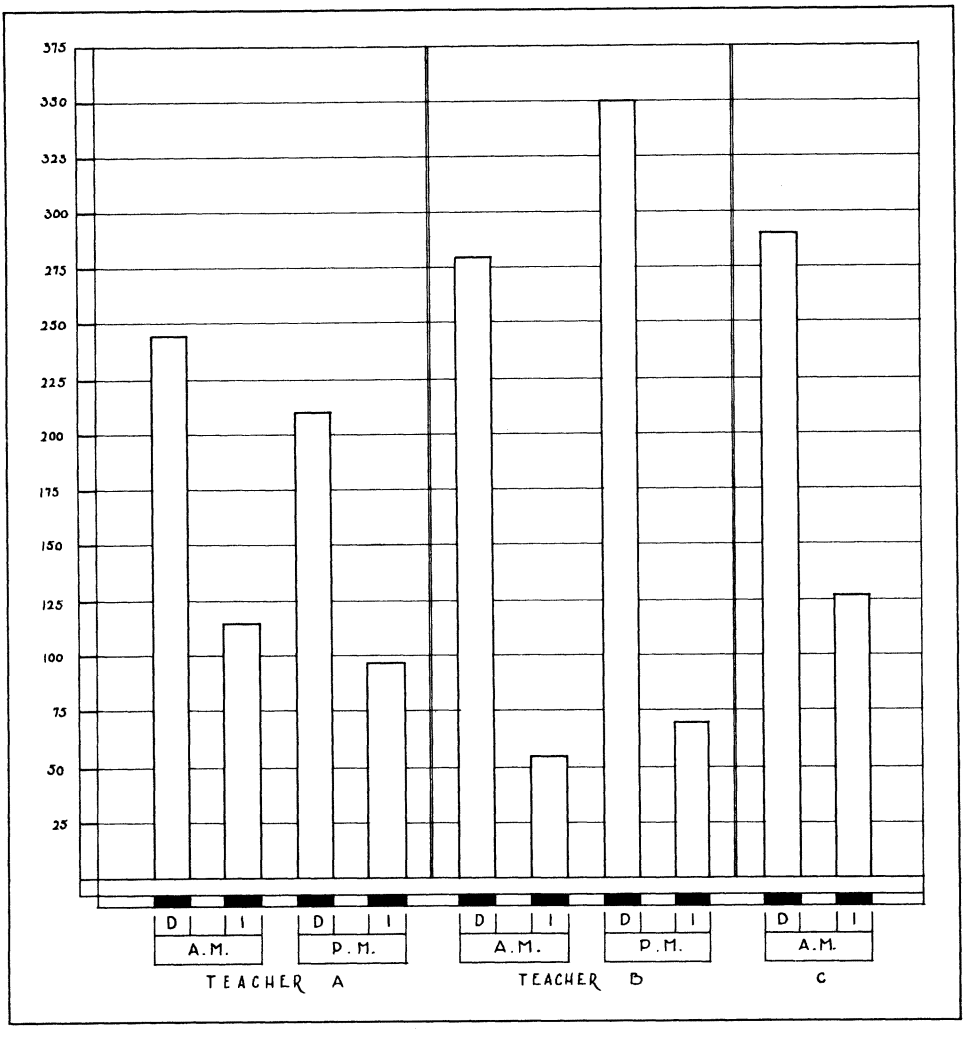

Fig. 2. Mean number of dominative and integrative contacts per hour which teachers A, B and C respectively had with individual children.

tive contacts not only extends within a shorter range than the curve for domination contacts but that, excepting the cases of three individual children, the integration curve lies below the domination curve. For these three children the Domination-Integration ratios become less than one.

The Domination-Integration ratios for the children represented in Figure 3 range from 0.6 to 4.6. It can be noticed that the child with highest D-I ratio is the child who had the lowest total number of contacts per hour with the teacher. In acticipation of further research it may be asked: Is this child to be regarded as "pedagogically self-sufficient" or merely neglected? Or what does it mean to a kindergarten boy whose frequency of total contacts with the teacher is relatively "negligible" to have four out of five of those contacts of a dominative character?

Figure 4 shows the contacts per hour which teacher B had with individual

children in the morning session. In comparison with the contacts of teacher A in Figure 3 it can be seen that teacher B had much lower frequencies of integrative contacts; with six children she had none. The ranges of dominative, integrative and of total contacts, however, are about the same for teacher B as for teacher A.

Figures 5 and 6 show respectively for teachers A and B the individual contacts per hour which these teachers had with the children enrolled in the afternoon group. Although the children in this group were older the curves show ranges, medians and tendencies toward individual differences similar to the curves for the contacts with the children enrolled in the morning group.

A contrast is shown, however, in Figure 7 which represents graphically the contacts per hour which teacher C had with eleven children. In general, the children with teacher C, numbering approximately half those with teacher A, received mean numbers of contacts per hour not quite double the frequencies of those with teacher A.

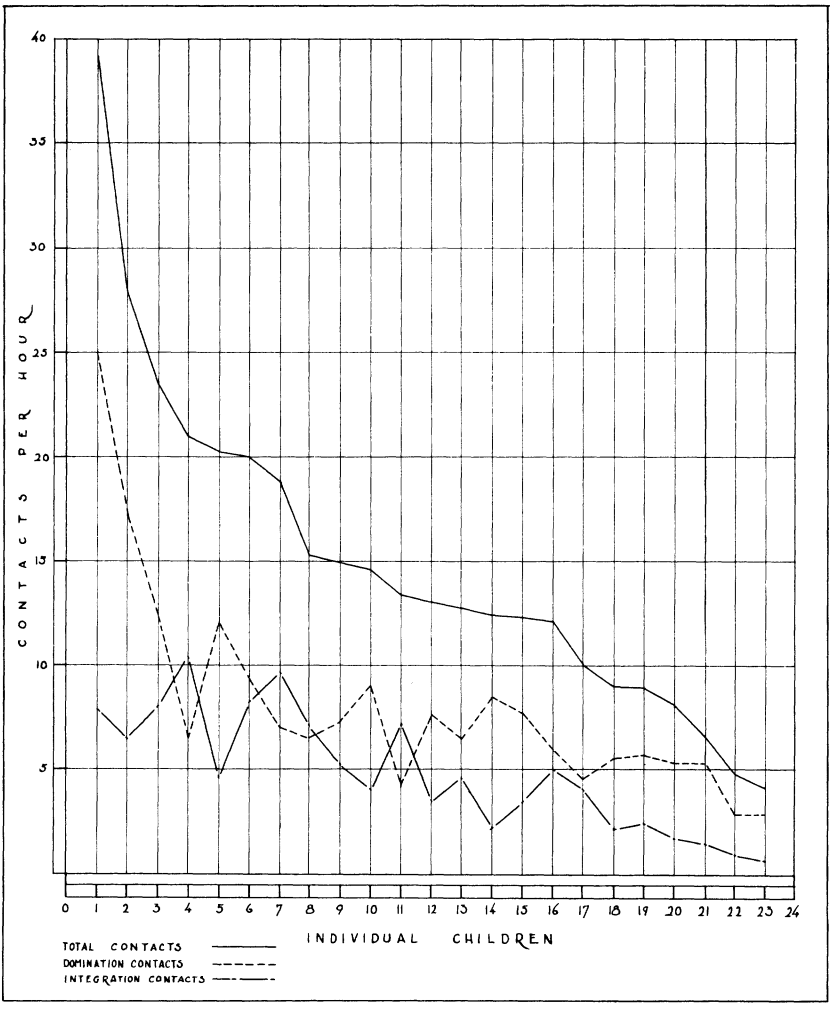

Fig. 3. Mean number of contacts per hour which teacher A had with individual children enrolled in the morning session.

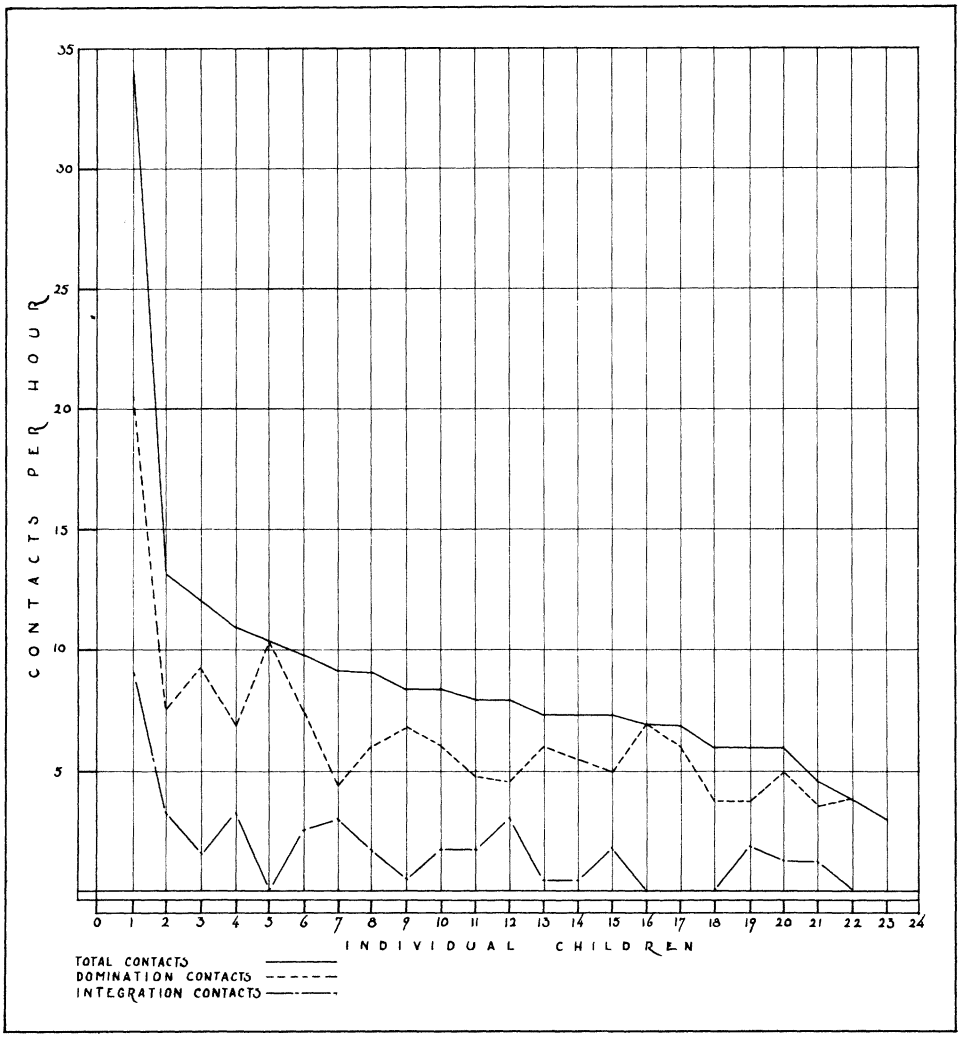

Fig. 4. Mean number of contacts per hour which teacher B had with individual children enrolled in the morning session.

The striking contrasts between teacher C and teachers A and B suggest that an extension of the present research techniques to the measurement of the behavior of teachers in a larger number of schoolrooms selected for greater control of known variables would have important theoretical value for the psychology of human relations and practical value for educators and mental hygienists.

Number of teachers' group contacts per hour. The contrasts and comparisons given in Figures 3 to 7 inclusive represent the teachers' direct contacts with individual children. In addition to the frequencies represented on those graphs there were many contacts which the teachers had with the children as a group. The frequencies of these group contacts per hour are shown in Table 4.

It can be seen in Table 4 that teacher B had approximately twice as many group contacts of all kinds, categories 1-24, per hour of observation as did

teacher A, both for morning and for afternoon. When the data for total numbers of contacts for teachers A and B are combined, the new mean is not greatly in excess of the mean shown by teacher C.

With group contacts as with individual contacts domination exceeds integration. The range of D-I ratios in Table 4 is from 5.4 to 11.4.

Fig. 5. Mean number of contacts per hour which teacher A had with individual children enrolled in the afternoon session.

TABLE 4

FREQUENCIES PER HOUR OF TEACHERS' GROUP CONTACTS

				Categories			
				1-24	1-8	15-23	
School	Session	Teacher	Total Obs. Time (min.)	Total contacts	Domination	Integration	D-I ratio
X	A.M.	A & B	460.5	112.6	80.7	11.5	7.0
		A	362.0	93.0	65.5	10.0	6.6
		B	98.5	184.6	136.5	17.1	8.0
	P.M.	A & B	461.5	106.5	80.4	9.9	8.1
		A	352.5	84.1	60.4	9.0	6.7
		B	109.0	178.9	144.8	12.7	11.4
Y	A.M.	C	440.5	105.8	64.4	12.0	5.4

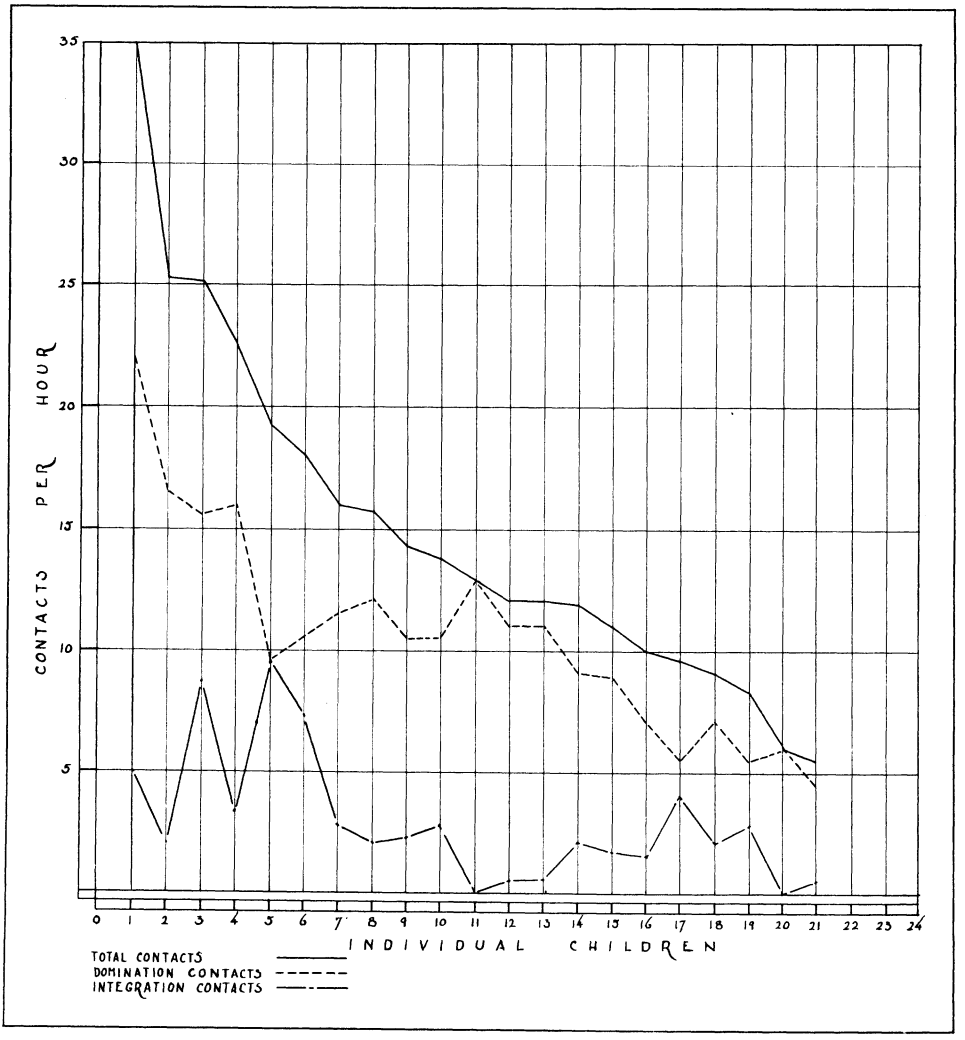

Fig. 6. Mean number of contacts per hour which teacher B had with individual children enrolled in the afternoon session.

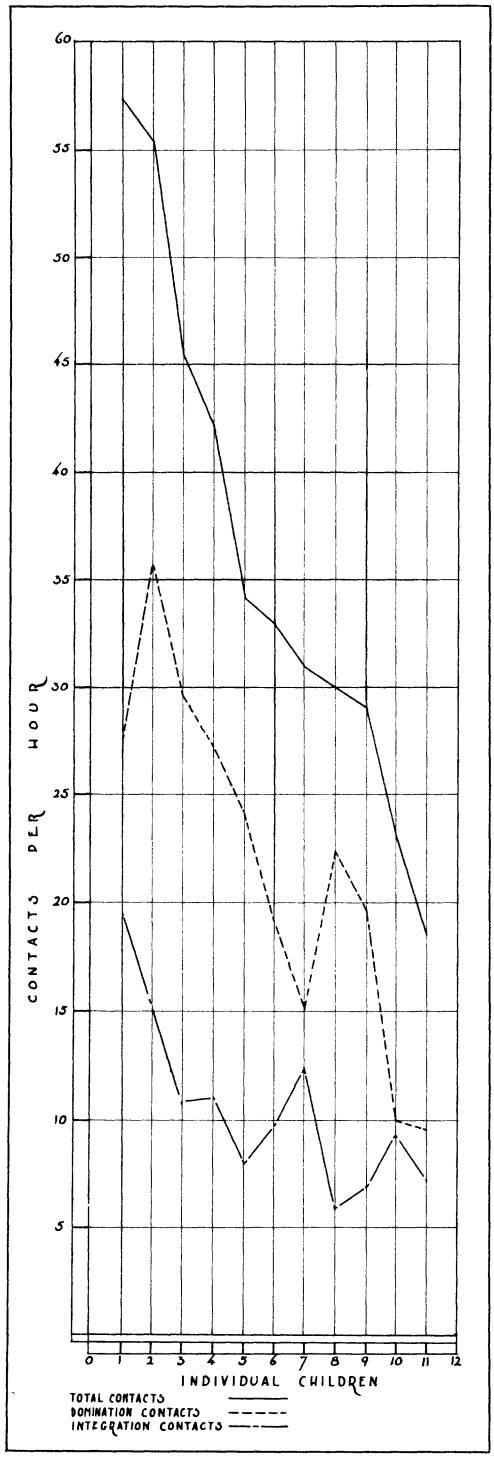

Fig. 7. Mean number of contacts which teacher C had with individual children.

SUMMARY

Domination is the behavior of a person who is inflexible, rigid, deterministic, who disregards the desires or judgment of others, who himself in the conflict of differences has the answers. Examples are the use of force, commands, threats, shame, blame, attacks against the personal status of another. Domination is the technique of autocracy or dictatorship; it obstructs the growth processes in others. It is the antithesis of the scientific attitude and the open mind.

The term integrative behavior was chosen to designate behavior leading to a oneness or commonness of purpose among differences. It is the behavior of a flexible growing person who is looking for new meanings, greater understandings in his contacts with others. It is non-coercive; it is the expression of one who attempts to understand others, who is open to new data. It is consistent with the scientific approach, the open mind. It is both an expression of growth in the person using it and a stimulus to growth in others. It does not stifle differences, it makes the most of differences; it actually creates new and harmonious differences.

No behavior is entirely integrative; none short of extermination is entirely dominative, but in the interplay of differences specific acts or contacts can be reliably said to be expressions of domination or of integrative behavior.

The purpose of this study was to develop reliable measures for recording in terms of dominative and integrative behavior the contacts which teachers have with kindergarten children.

Three kindergarten groups in two schools taught by three teachers supplied the final data.

Reliability coefficients were established by data from seventy-three pairs of consecutive and simultaneous records of five minutes each by two independent observers. The observers showed high agreement in defining a contact, in recording the total number of contacts as well as in recording contacts per five-minute period. They were more reliable in observing dominative contacts than integrative contacts.

The number of contacts per hour were computed for contacts with individual children and contacts with the group.

In individual contacts teachers A and C each had twice as many dominative as integrative contacts and teacher B had five times as many dominative as integrative contacts.

In group contacts the ratios were higher, all being over five to one for domination.

Teacher C had less than half as many children as teachers A and B, yet had more individual contacts per hour per child. It cannot be said that these frequencies are "too high," for there are no norms or standards. Questions were raised as to what constitutes a teacher load.

During several hours of observation some children had almost no individual contacts with the teacher; others had averages as high as fifty-five contacts per hour.