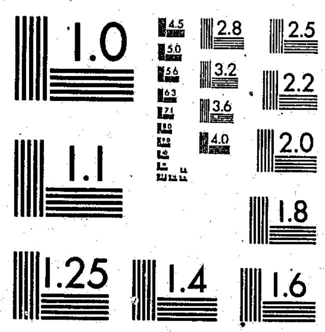

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MULTIVARIATE ANALYSIS OF GANG DELINQUENCY: III. AGE AND PHYSIQUE OF GANGS AND CLUBS[1]

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ABSTRACT

A sample of gang members and a Comparison Group of club boys are compared with reference to national norms for age, height and weight of juveniles. Possible relationships between these variables and five Behavior Factor Scores are examined. It is found that the gang boys are shorter than club boys at the sub-groups as well as the aggregate level. It is also found that gangs differ among themselves on age, height and weight. These differences are related to differences in behaviors. Furthermore, gangs differ sharply among themselves in regard to the within-gang connections between age, height and weight and behavior. Discussion centers upon group process effects.

In two previous papers (Cartwright and Howard, 1966; Cartwright *et al.*, 1970) we have examined the role of ecologic influences in the neighborhoods of 16 Chicago gangs upon the delinquent behaviors of these gangs; and also the role of certain group properties of the gangs (e.g., size, differentiation, cohesiveness). It was seen that the socio-economic status of the neighborhoods, and also the degree of suburbanism affected the behaviors. Various group properties were also found to be related to the behaviors of the gangs; for example, more cohesive gangs engaged in less conflict behaviors and less property offenses. In the present paper we turn attention to the very individual matters of the anthropometric characteristics of age, height and weight of the gang members. These characteristics are inherent in the organisms, not subject to direct influence by group pressures. Height and weight could be influenced by features of the environning neighborhoods; but age certainly could not. In general, we view these organismic characteristics of age, height and weight as constituting a panel of

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variables which is independent of the ecologic and group property panels.

As may be imagined by a brief thought about being confronted by members of a gang on a street, it makes a lot of difference how big they are. It also matters a great deal how old they are, since generally older boys have had time to learn more, either of a constructive nature or of a delinquent nature. In addition they have had more time to practice a variety of behaviors if they are older. Other changes come with age: maturation from pubescence through early adolescence, then later adolescence, to young adulthood. The biological modifications associated with these growth changes are considerable in themselves: increased sexual maturity, increased physical strength, and so on. The changes associated with social expectations are also substantial: eleven-year-olds are not expected to behave like fifteen-year-olds, sixteen-year-olds can drop out of school if they wish, eighteen-year-olds are expected to get a job or go to college or join the army.

So much hinges upon age in years in our society that it may be expected to play a greater role in controlling variation than either height or weight. Yet these features have their importance also, and especially in gangs. The interrelations among numerous relevant variables are clearly shown by Thrasher (1963).

> The ordinary assumption that gangs tend to be definitely segregated on the basis of age, boys from twelve to fourteen for example, preferring exclusive association with other boys of the same ages, is not readily supported.
>
> . . . The gangs of this region seem to be organized on the basis of physical ability rather than size or chronological age. In one group the oldest boy is fifteen and in second-year high school, while the youngest is only eleven. The eleven-year-old can play baseball and other games better than the older boy who is rather clumsy. If this older boy were at all clever, his size would permit him to enter an older gang which uses the same street [p. 61].

Propositions about height, weight, and other aspects of body build have been made from time to time by numerous workers concerned with differentiating delinquents from nondelinquents (Sheldon, 1949; Glueck and Glueck, 1956). The unreliability of these observations has been convincingly stressed by Sutherland and Gressey (1956), however; and no further reference to them need be made here.

However, it seemed desirable to obtain some national norms for age, height and weight of juveniles, against which the present samples of gangs and the Comparison Group could be studied. Table 1 provides a collation of values for height and weight in relation to age.

Table 1
National Data for Height and Weight of Boys of Various Ages

Age (in months)	Height (in inches)	Weight (in pounds)	Adjusted Values	
			Height[d]	Weight[e]
156[a]	59.1	91.7	60.1	93.2
162[b]	60.2	92.6	61.2	96.6
168[a]	62.3	106.5	63.3	108.0
180[a]	65.5	123.0	66.5	124.5
192[a]	67.1	133.8	68.1	135.3
198[b]	67.3	130.8	68.3	134.8
204[a]	67.8	140.0	68.8	141.5
216[a]	68.1	144.4	69.1	145.9
222[c]	68.1	144.0	69.1	149.0
264[c]	68.2	149.7	69.2	154.7

[a]Source: Altman, P. L. and Ditmer, Dorothy S. (Eds.) *Growth*. Washington, D.C., Federation of American Societies for Experimental Biology, 1962; p. 338: Table 75, Pt. II: Males—Maximum growth increase at 14.0-15.5 years. Subjects in indoor clothing without shoes; from three towns near Boston, Mass. Ancestry: 63% North European, 24% Italian, 7% Jewish, 4% South European, 1% Negro and Mixed. Metric data converted to inches and pounds. The figures are similar within one decimal place to those given for 400 North European boys ages 6-17 (smoothed curve) by Dearborn, W. F., and Rothney, J. W. M. *Predicting the Child's Development*. Cambridge, Mass.: Science-Art Publishers, 1941, Figures 107, 108, p. 338.

[b]Source: *Ibid.*, p. 339: Table 76, data for male semi-skilled or unskilled socioeconomic classes. Subjects wore light underclothing.

[c]*Ibid.*, p. 340. Table 77, Part II: Selective Service Registrants (white) 1943-44. Subjects were naked.

[d]Since the subjects studied in our research were all fully dressed in indoor clothing, including shoes, our measures overestimate height by the amount of the shoes. We have assumed that shoes make a difference of one inch and have added this adjustment to the national data for comparison with data from our own samples.

[e]The subjects in different groups as reported in the reference were clothed in various ways, thus affecting weight. For subjects referred to in footnote [a], dressed in indoor clothing without shoes, the difference from our sample would be that of the shoes only: estimated at 1.5 pounds. Therefore the adjusted figures in the table show the original plus 1.5 pounds for these subjects. For the subjects referred to in footnote [b], wearing only light underclothing, the difference from our subjects would involve both the shoes and the top clothing: estimated at 4.0 pounds. For the subjects referred to in footnote [c], naked, the difference from our subjects would include the shoes, the top clothing and the underclothing, estimated at 5.0 pounds.

It turns out that it is by no means easy to provide such norms. The collection of pieces of information that was necessary also involved the problem of those pieces having been collected under different conditions, mainly of dress of the subjects. For comparison with our samples it was necessary to adjust the national figures to accord with expectations had the subjects been dressed in the same way ours were. The various corrections for height and weight are discussed in the footnotes to the table.

Psychometric Procedures

Gang members were brought to the Assessment Laboratory of the Youth Studies Program at the University of Chicago by the Detached Workers who had been assigned to the gangs by the Young Men's Christian Association of Metropolitan Chicago. The gang sample contained 238 boys from 16 gangs.

An attempt was made to gather a group of boys from boys clubs who could serve as a Comparison Group of boys who were differentiated from gang members primarily by being positively associated with an adult-sponsored institution. It was thus necessary to ensure that they came from socio-economically similar areas to those from which the gang members were drawn; and also necessary that they have a similar range of age. The final sample of 82 comparison boys approximated these requirements quite well, all boys residing in tracts which either contained the residences of gang boys or which were adjacent to tracts containing such residences.

All subjects were first given tags and then some personal information was recorded, including age, height and weight. Height was measured using a stand marked off in inches, the subject being instructed to stand upright against the stand. Weight was measured using scales. Subjects were measured in their full indoor clothing, including shoes. While this is not the most desirable procedure from the point of view of measurement it was the most we thought we could do with gang boys without ruining rapport.

Reliability and validity

The usual questions concerning reliability and validity may be asked about the present measures. Ages were checked with the Detached Workers, in the same way that addresses were. But repeat data were not collected on the measures, so that reliability cannot be assessed in the usual way. However, it is well known that age, height and weight covary over the range of ages covered by our samples (vide Table 1 for the national data on this point), and hence it is appropriate to expect that our measures, if they are valid, will also show substantial positive intercorrelation. In our sample of gang boys the intercorrelations were: Age and Height, .43; Age and Weight, .48; Height and Weight, .68. Comparable figures were obtained in the Comparison Group.

Results and Conclusions

Differences between Gangs

The significance of the differences between the gangs was analyzed using a technique of multiple regression analysis that yields an F ratio and associated probability value for the significance of the obtained differences. The significance of such tests for age, height and weight is reported in Table 2. The values headed "F test p on Gangs" are the probability values associated with the F ratios in the multiple regression analyses of differences between the gang means. Also the mean value obtained by the gang with the highest mean, as well as the lowest mean value of any gang is shown. Thus a rapid view of the degree of spread among the gangs can be obtained. In Table 2 it may be seen that they vary from a mean of 177 months of age to a mean of 235. In more familiar units, they vary from a mean of 14 years 9 months to a mean of 19 years 7 months. The differences are significant in age, height and weight.

Differences between Gang Boys and Club Boys

On the right side of Table 2 are shown comparable data for the clubs. However, we are not interested at this time in differences among the clubs; rather we are interested in differences between club boys and gang boys. The column headed "F test p Gang/Club" gives the probability values associated with F ratios obtained also by multiple regression analysis. As with the test for differences among gangs, so here, in the test for differences between gang boys and club boys we establish vectors to represent the different possible categories. If a boy is a member of a gang he gets a "1," otherwise "0"; thereby the vector for gang membership is created. Then, if a boy is a member of a club he gets a "1," otherwise "0"; thereby creating the vector for club membership. Using these two vectors as predictors, and age as the criterion measure, the multiple regression of age on the two membership vectors yields a squared multiple correlation, an associated F statistic, and the related probability value for significance. In Table 2 we see that gang boys as a whole differ from club boys as a whole in being older and shorter; they do not differ in weight.

In view of the generally obtained significant positive correlation between age and height, our results are unexpected. We do not know whether the gang boys are short for their age or the

Table 2
Means for Gangs and Clubs on Age, Height and Weight

Measure	Gangs				Clubs			
	Highest Gang Mean	Grand Mean	Lowest Gang Mean	F test p on Gangs	Highest Club Mean	Grand Mean	Lowest Club Mean	F test p Gang/Club
Age (in months)	235.0	209.0	177.0	.01	216.0	200.0	187.2	.01
Height (in inches)	69.4	67.9	62.3	.01	70.7	68.7	66.6	.05
Weight (in pounds)	157.4	139.6	99.0	.01	162.1	143.6	122.2	NS

club boys tall for their age. We shall examine this question through comparisons with national data.

Comparisons with National Curves

The figures for age, height and weight shown in Table 1 unfortunately do not yield a smooth curve for ready interpolation. Accordingly adjustments were made to produce a completely smooth curve, using graphic methods. The resulting smoothed curves had a number of exact coincidence points with the data shown in Table 1. The smoothed curve for height on age had six coincidence points as follows: age 168, 180, 192, 216, 222, 264; at each point the smoothed curve showed precisely the adjusted height value that is given in Table 1. At age 168, for example, the curve showed 63.3 inches. For weight, the age points of exact coincidence were: 168, 180, 204, 264.

Using the smoothed curves, it was possible to compare each gang's mean height with the national expectation for the mean age of the gang. Thus for Gang 01, with mean age 204 months, we enter the curve of height on age at the point opposite age = 204 months. The corresponding point on the height scale for the national data is given as 68.8 inches. Therefore, the Gang 01 mean deviates from the national expectation by a value of —0.1. Gang 10, at age 212, deviates by an amount of +0.2 from the national expectation; for at age 212 months, the national expected value on height is 69.0 inches, according to the smoothed curve.

Deviations of gang and club means from national curve expectations are shown in Table 3, which gives also the means for age, height and weight for all gangs and clubs.

Since we have ratio measurements in height a definite meaning can be assigned to the deviation scores, namely deviations in inches from the value expected given the age of the group. We assume that a proper statistical population can be constituted of such deviation scores for small groups of varying size. The sample mean for gangs is —.89, with standard error of .264, yielding a z equivalent of 3.37, with p .01. The gangs do fall below national expectations for height. The clubs have a mean of +.25, standard error of .281, and a z equivalent which is not significant. The clubs have mean heights consistent with national expectations.

Evaluating weight showed no significant departure for gangs or clubs from national expectations.

Differences between Gangs and Clubs as Groups

We saw earlier that gang boys in the samples were older on

Table 3
Deviations of Gang and Club Means from National Curves

Group	Mean Age	Mean Height (in inches)	Deviation in Height (in inches)	Mean Weight (in pounds)	Deviation in Weight (in pounds)
01	204	68.7	—0.1	139	— 2.1
05	225	69.1	0.0	152	+ 2.3
06	200	67.6	—1.0	135	— 3.9
09	230	67.8	—1.3	145	— 6.2
10	212	69.2	+0.2	145	+ 0.3
11	186	66.1	—1.3	125	— 3.9
13	218	68.9	—0.2	150	+ 1.3
14	227	69.4	+0.3	150	— 0.8
15	215	68.6	—0.5	148	+ 1.7
16	194	67.5	—0.7	137	+ 1.6
18	226	66.4	—2.7	136	—14.4
20	205	68.4	—0.4	144	+ 2.1
21	177	64.0	—1.9	114	— 7.0
22	238	69.3	+0.1	157	+ 4.4
23	180	62.3	—4.2	99	—25.5
25	231	69.1	0.0	144	— 7.9
81A	207	69.8	+0.9	162	+19.2
81B	196	68.2	—0.2	152	+15.0
91	194	68.5	+0.3	131	— 4.7
92A	201	69.1	+0.4	151	+11.1
92B	196	69.0	+0.6	140	+ 3.0
93	197	66.9	+1.5	127	—10.5
94	187	66.6	—0.9	122	— 8.5
95	210	70.7	+1.7	159	+15.0
96	216	70.2	+1.1	162	+15.4
98	202	68.8	+0.1	139	— 1.5

Note.—Group numbers 81A and larger are clubs.

the average than club boys. However, this comparison was made upon the grand means for all boys of each sample, considered as two aggregates. It would be possible, theoretically for such a grand mean to be pulled down sharply by the members of one gang only, when the rest of the gangs fell within the range provided by the clubs. Indeed we found that the gangs do differ significantly among themselves on age.

In order to test for differences between the set of gang small groups and the set of club small groups with respect to age, the data for mean ages given in Table 3 were analyzed using the *U* test. *U* was 52, when 48 or less would be needed for significance at the .05 level, even if a one-tail test were justified, which is doubtful. We conclude that gangs do not differ from clubs in age so far as their small-group means are concerned.

Relationships with Behavior

Having established that the gangs differ significantly among

themselves on age, height, and weight, we proceed to an examination of possible relationships between these variables and the behaviors. We make use of the complex analysis of correlations provided by distinguishing between those coefficients due solely to individual differences and those coefficients which may reflect also the influence of emergent group processes. A complete discussion of the relationship between individual correlations and group correlations has been given elsewhere, as have the relevant equations (Cartwright, 1969). Briefly, we take the sums of crossproducts that enter the numerator for a Pearson correlation coefficient, and partition them into two subsets: the crossproducts associated with variations among groups, and the crossproducts associated with variations among individuals. Thus, within each gang we compute the sum of the crossproducts of deviation scores for two measures; and then we cumulate these sums over all gangs under study. Hence we arrive at a pooled-within-group sum of crossproducts, proper manipulation of which yields a pooled-within-group correlation coefficient. Note that the respective deviations have been taken about each gang mean. Now we also compute the grand mean over all gang boys and calculate the deviation scores and crossproducts for the total data set. Subtracting the pooled-within-group sum of crossproducts from the total sum of crossproducts yields the crossproducts due to deviations of group means from the grand mean. Proper manipulation of the latter yields the between-group correlation coefficient.

In Table 4 we give the relevant coefficients for 12 gangs on

Table 4
Correlations between Age, Height, Weight and Behaviors

Type of Coefficient	Variable	Behavior Factors: Conflict	Corner Boy	Stable Sex	Retreatist	Property Offenses
Total[a]	Age	30	—01	40	30	12
	Height	09	—16	31	06	—01
	Weight	24	—04	40	19	11
Between Group[b]	Age	46	—19	85	53	29
	Height	31	—44	82	14	13
	Weight	42	—36	86	33	28
Pooled-Within-Group[c]	Age	15	09	03	18	00
	Height	—04	—06	03	02	—08
	Weight	14	07	15	13	02

Note.—All decimal points have been omitted.
[a]For $r = .142$, $p < .05$; $r = .186$, $p < .01$.
[b]For $r = .576$, $p < .05$; $r = .708$, $p < .01$.
[c]For $r = .146$, $p < .05$; $r = .191$, $p < .01$.

whom Behavior Factor Scores were available (see Cartwright & Howard, 1966) in relation to age, height and weight. In this table we show the total correlations as well as the pooled-within-group and between-group coefficients. Our purpose is to exemplify the relationships between types of coefficients. It may be seen that the total values reflect some mixture of the other two respective values. In subsequent tables of this type we shall not present the total correlations since they add nothing to our information.

The Behavior Factor Scores of Conflict, Stable Sex and Retreatist show significant relationships with age, height or weight. From the pooled-within-group results it is seen that age is positively related to Conflict and Retreatist; weight is positively related to Stable Sex.

Among the between-group coefficients it is found that only associations between age, height, and weight with Stable Sex Maturity behaviors reach statistical significance. The sharp difference between these between-group coefficients and the comparable coefficients for the pooled-within-groups data argues that the increased sexual activity among gangs with older age on the average is due more to the influence of group processes upon members' behavior than it is due to biologic or psychic influences within the individual members.

Blau (1960) has suggested that the influences upon individual behavior that emerge from forces outside the individual but within the group be called "structural" forces, and their consequences "structural effects." He showed, for example, that caseworkers in agencies having an overall positive orientation toward clients were more likely to render casework service to clients (rather than merely checking eligibility) regardless of whether the individual's orientation was positive or not. His data were dichotomous and his technique involved use of percentages. The same end may be achieved with continuous data by using means. For the relationship between Age and Stable Sex Maturity, the amount and significance of the structural effect was calculated in the following way:

1) Create a vector of scores such that each individual receives the mean age of his gang, and call this the Age-mean measure.
2) Calculate the multiple correlation for Stable Sex Maturity as the dependent measure, with age and Age-mean as independent measures.
3) Calculate the difference if any between the multiple correlation coeffieient so obtained and the coefficient of correlation already obtained for the relationship between Age alone and Stable Sex Maturity.
4) Reason as follows: if the group means are contributing influence over and above the individual differences, then adding that influence in to the multiple correlation should result in a significant improvement.

The results of this analysis were as follows: whereas the original simple correlation between age and Stable Sex Maturity was .40 the addition of the age-means measure raised the multiple correlation to .53. Using the squares of these values to assess the proportion of common variance yields .163 and .279 respectively. The difference, .116 gives an estimate of the amount of influence due to the Age-means measure. Using the equation for testing the significance of difference between two multiple correlation coefficients, (Guilford, 1956) we find $F = 30.73$, which, for 1 and 191 degrees of freedom, is statistically significant at less than the .001 level of probability.

We have shown that there exist substantial structural effects in the relation of age to Stable Sex Maturity behaviors. What this means in the particular case is that boys who are members of older gangs will engage in more Stable Sex behaviors than will boys in younger gangs, *regardless of the individual ages of the boys.*

How shall these results be interpreted in a concrete fashion? It is one thing to acknowledge the presence of a structural effect and to assign it to the operation of group processes. It is another to decide which group process is probably at work. However, some lead is given by the fact that the vector introduced to assess the influence of the group process was a vector of gang means: within any gang each member received the same value, the mean of the gang. It cannot be that the group process at issue is one of differential role-assignment within gangs, then; for if one could put in a vector representing differential role-assignment, the values for individuals would surely be different within a gang. Rather, the group process bears upon each member of the gang equally, at least in the present vector representation.

It is not difficult to imagine the development of normative standards for sexual behavior within a gang, standards to which each member is held by the frequent challenges, reproaches, or questioning of other members. Short, Strodtbeck and Cartwright (1962) describe one gang in which such enforcement of normative standards took place in regard to sexual liaisons. While such liaisons were required of a member in good standing they should not lead to avowed and legitimate parenthood. The account of one relevant incident, as told by a street worker, is as follows:

> . . . Jackson (a former gang member) had the baby in his arms; and such howling, clapping, and carrying on—they were razzing him.
> Q: Razzing him for being a legitimate father?
> A: Legitimate father walking around the street with his baby.
> Then Billy said, 'Let me shut up, 'cause I might be out walking my baby. You too, Henry.' Henry said, 'Not me. I ain't walking nobody's baby'.

The mechanism of such enforcement is in part such "Razzing" or "Sounding." Matza (1964) gives the following description of "Sounding" among delinquents.

> Sounding . . . is a probing on one's depth, taking the form of insult. One's depth is never definitely certified. It is sounded almost daily. One's depth is probed along a number of dimensions, but two loom most important. Most sounding is a probing of one's manliness and one's membership. Are you really a man or just a kid? Are you really one of us or just faking it? Thus, each delinquent in the situation of company suffers generally from masculinity anxiety and specifically from membership anxiety. He can hardly avoid these anxieties. He is sounded daily by a jury of peers.

Whether or not either or both of the suggested forms of anxiety in fact obtain among delinquents in gangs (the situation of company), it is apparent that some constant reference to qualifications for membership is made by members toward each other in the sounding activity. We distinguish between *membership-status* and *rank-status*, the first referring to the individuals' being a member in good standing or not, and the second referring to his rank position within the gang. While both of these forms of status could be subject to management through sounding, it seems reasonable to suppose that questions like "Are you one of us?" challenge membership-status; while questions like "Are you really a man?" challenge rank-status. It seems also that the latter question would have more force upon a member for whom there might be doubt than upon a member whose behaviors clearly spoke for his rank; in other words there would be more individual variation in effect for rank-status management.

In view of our earlier conclusion that the particular structural effect at issue here bears upon each member equally, we are inclined to the view that the group process involved in one of membership-status management via such behaviors as sounding.

Relationships with Behaviors Within Single Gangs

The large number of nonsignificant coefficients in Table 4 reflects the fact that there are substantial differences between the gangs with respect to the degree and even the direction of correlation between age, height, weight and behaviors. Individual gang coefficients significant at the .05 level of probability or better are shown in Table 5. In cases where all such coefficients are positive, the largest single within-gang negative coefficient has also been given in order to show the extent of variation among the gangs. Where significant coefficients are negative, the contrasting largest positive value is given.

Twenty-five of the 180 coefficients involved in separate gang

Table 5
Selected Correlations between Age, Height, Weight and Behaviors within Single Gangs

Gang	Conflict			Corner-Boy			Stable Sex			Retreatist			Property		
	A[a]	H	W	A	H	W	A	H	W	A	H	W	A	H	W
01				47	—58								43		52
05			—28[b]	55											
09		—29[b]		—54	51		—67	47	—39						
10		43	—55	51	—39							—19[b]			
11						—34[b]									
13			57												
15															
18															
20						48						99			
21							73	60	59				—63		—35[b]
22	54														
23		37[b]		—76											
PWG[c]	15	—04	14	09	—06	07	03	13	15	18	02	13	00	—08	02

[a]Capital letters stand for: A = Age; H = Height; W = Weight.
[b]Values with superscript *b* represent the highest within-gang coefficient having a sign opposite to that of the significant coefficients in the same column.
[c]These pooled-within-group (PWG) coefficients are repeated here from Table 4 in order that rapid comparison between these values and the values for separate gangs may be made.

correlations between age, height, weight and Behavior Factor Scores are significant at better than the .05 level and are shown in Table 5. Also shown, for comparison, are the relevant pooled-within-group coefficients. It is clear that many of the latter are poolings which conceal much significant variation between the gangs: for example, individual gang coefficients for Corner-Boy and Age vary between —.76 and +.55 around a nonsignificant PWG value of .09.

For the present it does not seem fruitful to characterize closely the several gangs and their patterns of relations shown in Table 5. Suffice to conclude that there are marked differences between gangs in the way in which variations in age, height and weight are connected with variations in behaviors. Our overall conceptual scheme would require that such differences be provisionally assigned to differences between the gangs in their processes of role-assignment. The process of role assignment is not to be thought of as formal or explicit. Rather it is reasonable to expect that each boy comes to have some role in the group, as discussed by Thrasher (1963). The notion of role assignment then refers to the implicit or even unconscious shaping and reinforcing of a boy's role-behavior at least partly on the basis of his having certain individual characteristics.

It is clear from Table 5 that gangs differ sharply among themselves in the way in which such social forces connect up age, height, and weight with behaviors. The case of age with Corner-Boy behaviors provides a good instance: Gangs 09 and 22 assign *older* boys to roles involving *less* Corner-Boy behaviors; Gangs 01, 05 and 10 assign *older* boys to roles involving *more* Corner-Boy behaviors; remaining gangs to not have a significant coefficient indicating any such particular connection of age characteristics to Corner-Boy behaviors.

The connections between age and Corner-Boy behaviors should be contrasted with those found earlier between age means and Stable Sex behavior means. The latter were interpreted as structural effects, specifically of the "direct" kind described by Blau. The relationship holds statistically between means, and its clarification involves the use of a vector representing the same force acting upon all members of a given gang. By contrast, the connection between age and Corner-Boy behaviors is established through individual person scores taken within separate gangs; and the relationships vary in size and direction across different gangs; and they do not directly reflect the influence of the mean age of the

gang. Such relationships have been described by Blau as structural effects of the "contingency" type.

While either direct or contingency structural effects are probably mediated by similar cues and controls such as razzing, or, more generally, "interstimulation," the difference in the nature of the effect calls for a difference in process interpretation; and "role-assignment" appears more apt for a contingency effect.

SUMMARY

It was shown that the gangs differed significantly among themselves on age, height and weight. These differences were related also to differences in behaviors. Two outstanding types of group process effects were found. First, it was seen that Stable Sex behaviors are more influenced by group processes than they are by individual biologic or psychic characteristics of individual boys. Regardless of the individual ages of the boys, those who are members of older gangs will engage in more Stable Sex behaviors than will boys in younger gangs. This result is interpreted as evidence of group processes at work in the definition and enforcement of membership status within the gang. Boys engage in the level of Stable Sex activity that is necessary to the maintenance of their membership in the gang. It is suggested that such maintenance is encouraged and even enforced by the behaviors of "sounding" which gang members express constantly at each other.

Another outstanding result was that the gangs differ sharply among themselves in regard to the within-gang connections between age, height and weight and behaviors. The correlation between age and Corner-Boy behavior, for instance, varies from —.76 in Gang 22 to +.55 in Gang 05. Here again, it is suggested that group processes are at work, through sounding and other forms of interstimulation, to produce an effect of assigning persons of different personal characteristics to different behavioral roles. Such role-assignment is made on different bases in different gangs.

It was also shown that the gang boys in this sample were both older and shorter than club boys, each group being taken as a grand aggregate. The difference in height was shown to be due to the gangs' significant tendency to have shorter heights than would be expected from national age-norms. While the difference between gang boys and club on age holds at the aggregate level, it vanishes at the sub-group level: comparison of the 16 gang means for age with the 10 club means for age shows no significant differ-

ence. Thus for many purposes of comparison gangs and clubs may be considered comparable with respect to age. At the same time an implication for recruitment theory is invited by the aggregate differences in age and height. For it would seem that boys who are short for their age have a somewhat greater probability of being recruited into a gang rather than into a boys' club.

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