

Changes in patterns of prosocial motivation between Grades 2 and 12 were examined in five samples from four countries: West Germany, Poland, Italy, and the United States. The Prosocial Motivation Questionnaire (PSMQ), an instrument based on theoretical elaborations about evaluative standards operative in prosocial action, was used to assess within-subject preference for five prosocial motives: hedonism, self-interest, conformity, task orientation, and other-orientation. Studied were two samples from Berlin (West; average age range, 11-6 to 18-6 years) and one sample each from Warsaw (11-11 to 18-11), Bologna (11-6 to 18-11), and Phoenix, Arizona (8-4 to 13-4). The major results held for all cities studied and confirm the generalizability of earlier national findings. Specifically, the major findings were as follows: (1) extrinsic motives for prosocial acts (hedonism and self-interest) were least preferred, whereas intrinsic motives (task and other-orientation) were most highly valued, and conformity was always in between; (2) preference for hedonism decreased in the younger samples, preference for conformity decreased in the older samples, and age-related increases were found only for task orientation; and (3) gender differences emerged at age 12, thus confirming prior findings that girls prefer intrinsic motives more than boys do.

DEVELOPMENTAL PATTERN OF PROSOCIAL MOTIVATION A Cross-National Study

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In recent years, there has been increasing interest in moral cognitions about prosocial behaviors. This interest stems, in part, from research indicating an association between moral

cognitions and prosocial action (see Blasi, 1980; Eisenberg, 1986; Underwood & Moore, 1982). Apparently, individuals who reason at a relatively high level about real or hypothetical prosocial behavior exhibit more prosocial behavior than persons reasoning at lower levels.

Most of the research designed to assess cognitions about individuals' own behaviors is of two types: work on moral reasoning about hypothetical dilemmas involving third-person others and research on children's moral attributions about their own real-life or hypothetical behaviors. The work on moral reasoning has, in general, been patterned after Kohlberg's (1981, 1984) research. Typically children have been asked to resolve moral dilemmas in which a story protagonist can assist another at a cost to the self (Eisenberg, Lennon, & Roth, 1983; Eisenberg-Berg, 1979). In cross-sectional and longitudinal research, investigators have noted decreases in reasoning reflecting hedonistic concerns from the preschool to the middle elementary school years (Eisenberg-Berg & Roth, 1980), accompanied by an increase in reasoning reflecting an orientation to others' needs. In middle and later childhood, use of reasoning reflecting stereotypic concepts of good and bad behavior, approval-oriented concerns, and self-reflective role taking as well as empathic responding increases. In late childhood and adolescence, children's use of reasoning reflecting internalized norms and values as well as affect related to such norms also increases, whereas stereotypic and approval-oriented reasoning declines (see Eisenberg, 1986).

In research in which children's attributions about their own behavior have been elicited, similar trends have been noted. For example, Bar-Tal (1982) studied elementary school chil-

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dren's self-attributions about their own actually occurring helping behavior and found decreases in egoistic self-attributions (e.g., helping for concrete rewards) with age (Bar-Tal, Raviv, & Leiser, 1980; Guttman, Bar-Tal, & Leiser, 1979). In contrast, references to altruistic, internalized, or truly sympathetic motives increased with age (Bar-Tal & Nissim, 1984).

Researchers have seldom examined developmental change in older children's and adolescents' self-attributions of prosocial motives. An exception is the work of Silbereisen, Boehnke, and Reykowski (1986), who designed a measure of self-attributions based on Reykowski's (1982a, 1982b, 1984) theoretical approach. Reykowski assumes that prosocial behavior is goal-oriented behavior and that its performance is a function of both the value of the goal at stake and the expectation of whether or not a goal can be achieved under the given circumstances (see Atkinson & Birch, 1978). Attributions of value to a specific prosocial goal are based on evaluative standards of a person, which are cognitive schemata with an associated affective change.

Reykowski's standards are of three basic origins. *Hedonic standards* are due to the interaction between the organism and the environment; this interaction results from factors such as the physical stimulation of sensory organs, motor activity, bodily states, and changes in level of activation. When hedonic standards are operative, performance of prosocial behavior is controlled by the possibility of pleasure or protection from pain involved in the situation.

A second type of standard develops as a product of societal influences that elicit conformity to the demands of external authority or the peer group. These standards are called *conformity standards*. According to Reykowski, although the actions of others or models can have direct control over behavior in many novel situations or in the early stages of development of such standards, in the more advanced stages conformity is internalized and self-regulation is based on an internalized standard. Thus, when conformity standards are operating, the

performance of prosocial behavior depends on the presence of explicit or implicit demands by an authority or reference group.

The third type of standards, *conceptual standards*, is viewed as developing because cognitive processing can be an intrinsic source of affect (Hebb, 1949; Zajonc, 1980). Affect can be evoked by cognitive representations of social objects, including individuals, groups, and symbolic systems. Changes in the object (e.g., in physical or psychological state) can produce an affective reaction if they are incongruent with an individual's expectations regarding a given object. Because there are different types of objects that can be represented cognitively, different kinds of conceptual standards are possible. Three types are (1) *standards of self-interest*, which are related to the representations of the self (and one's self-interest), (2) *other-oriented standards*, which are aroused by the preception of others' needs, and (3) *task-oriented standards* which are aroused by requirements inherent in accomplishing a task regardless of self-interest or another's interest. Conceptual standards can also concern a social group or system (*sociocentric standards*) or higher-order cognitive organizations consisting of a set of principles concerning abstract concepts (e.g., "equality"; *axiological standards*). The latter two, however, have not to date been the subject of empirical research.

Silbereisen et al. (1986) developed an instrument, the Prosocial Motivation Questionnaire (PSMQ), to assess individuals' use of various evaluative standards (hedonism, conformity, self-interest, other-orientation, task orientation) in explaining their own prosocial motivation. Individuals were presented with hypothetical situations in which they purportedly helped or did not help another and then were asked to indicate to what degree various motives (reflecting the different evaluative standards) might have motivated their behavior.

In initial research, Claar, Boehnke, and Silbereisen (1984) found that agreement with extrinsic (hedonism, self-interest) and conformity motives generally decreased with age from Grade 6 to Grade 12, whereas agreement with intrinsic

motives (task, other-orientation) changed little in adolescence or decreased only slightly (for other-oriented motives). Thus, only the more advanced types of standards were endorsed as frequently by older adolescents as by sixth-graders; the older subjects were less likely than younger subjects to endorse lower-level standards. O'Connor, Cuevas, and Dollinger (1981), using a similar measure, obtained comparable results.

HYPOTHESES

Silbereisen et al. (1986) reported differences between Polish and German adolescents. The Polish students showed a more positive evaluation of conformity motives. Although the differences were rather small, they match expectations based on cross-cultural research. Alwin (1984), for instance, found that, among several other populations, parents of Polish descent ranked obedience highest in a list of socialization values.

Furthermore, Silbereisen et al. found almost no increase in any of the motives across age. However, the methods used in analyzing the data could have been responsible for some of the results. In earlier research with the PSMQ, individuals' agreement scores were analyzed. This implies a risk of confounding age-typic tendencies in responding to the scales with true age-related trends in preferences for specific prosocial motives.

Thus, the major purpose of this study was to demonstrate the cross-cultural generalizability of a proposed developmental pattern characteristic of prosocial motivation. More specifically, relative preference for the various motives was examined using within-subject standardization. Samples from a wider range of cultures were analyzed, than in earlier research. Thus, data from Berlin, Bologna, Warsaw, and Phoenix are included. Also included in some samples are children younger than those in prior work.

Furthermore, the present study provides an opportunity to study effects of transition in school on preferences for proso-

cial motives. As the grade of transition in Warsaw differs from that in the other cities, the effect of timing can be evaluated independent of age.

Hypothesis 1: Across-age trends. On the basis of prior work and theory, it was hypothesized that the relative preference for extrinsic standards would decline with age, especially in the elementary school years, whereas the preference for intrinsic standards, especially the task-oriented standard, would increase with age. In addition, preference for conformity standards was expected to decrease in adolescence (Eisenberg, 1979).

No cross-cultural differences were hypothesized in this developmental pattern. In general, few differences in age-related patterns of Kohlbergian (Snarey, 1985) or prosocial moral reasoning (for an overview see Eisenberg, 1986) have been noted in industrialized societies such as the United States, West Germany, and Japan. For example, Munekata and Ninomiya (1985) assessed the level of prosocial moral reasoning in Japanese preschool, elementary school, junior high school and senior high school students. They found that more older subjects than younger subjects exhibited developmentally mature levels of reasoning and concluded that the pattern noted in Western industrialized societies holds true for Japanese children and adolescents. Similarly, Eisenberg, Boehnke, Schuhler, and Silbereisen (1985) confirmed earlier results from the United States for German children. This similarity in findings across industrialized societies is not surprising, given that the ability to focus on others' needs and on the requirements of a task rather than on egoistic needs is likely to be linked to the development of logical and perspective-taking capabilities (see Kohlberg, 1969; Kuhn, Langer, Kohlberg, & Haan, 1977; Krebs & Gillmore, 1982; Walker & Richards, 1979; Walker, 1980). Thus, one would expect some congruence in the pattern of preferences observed in various countries.

Hypothesis 2: City and gender differences. Intrinsic standards were expected to be rated higher than extrinsic standards

at all ages. This preference for intrinsic standards is assumed to reflect basic values concerning social interaction among the members of a society — values common to all four societies. It is difficult to predict specific differences in value systems among the countries included. However, referring to Hofstede (1980) may help somewhat. In his research on the dimensions of value systems in 40 countries, no major differences were found among the United States, West Germany, and Italy except that Italians favored a smaller power distance¹ in social relations than residents of the other countries. One may read this as indicating a higher preference for other-oriented values and a lower preference for authority among Italians. However, this remains a mere speculation, as the data refer to adults in managerial positions. Furthermore, Poland was not included in the study.

For the Berlin and Warsaw samples, we already have evidence consistent with this hypothesis from parallel research on the same samples. Smolenska and Fraczek (1987) found almost no differences between Berlin and Warsaw subjects in importance they attached to 16 life goals. Polish adolescents tended to rank the value of family much higher than German adolescents, who instead favored having friends. Moreover, Polish adolescents exhibited more pronounced differences in terms of traditional gender roles. However, this preliminary information does not allow us to predict differential patterns in the preference for prosocial motives. Thus, the present study is merely exploratory in this regard.

According to Gilligan (1977, 1982), females focus more on others' needs and on the specifics of moral dilemmas (i.e., the task) than males do. Certainly, the stereotypic feminine role stemming from societal expectations for women is more other-oriented than the masculine role (Block, 1973). We therefore hypothesized that females would be more likely than males to attribute prosocial choices to other-oriented motives and would also be less likely to attribute them to self-oriented motives.

Hypothesis 3: Effects of transition. Research by Simmons and colleagues (Simmons, Burgeson, Carlton-Ford, & Blyth, 1987; Blyth, Simmons, & Carlton-Ford, 1983) has demonstrated that students who undergo a transition after Grade 6 from a small elementary school into a larger junior high school suffer more in terms of their self-esteem than students who remain in an elementary setting until Grade 9.² Silbereisen, Reitzle, and Schulz (1986) reported similar effects for German adolescents attending the lowest educational track. Some researchers have noted relations between prosocial motivation or behavior and self-esteem (see Staub, 1978). Indeed, Silbereisen, Boehnke, Eisenberg, Palmonari, and Reykowski (1988) found that self-esteem was positively correlated with task orientation. The present study provides an interesting opportunity to explore this issue, as the transition in the Polish system follows Grade 9, whereas it follows Grade 6 in Berlin, Bologna, and Phoenix. Put in technical terms, we hypothesized that, in addition to linear age trends, higher-order trends would be probable if a transition has just taken place for an age group examined.

METHOD

SUBJECTS

There were five groups of participants in this study. Two groups were from Berlin (West). The first was a representative sample of Berlin students of two ages (i.e., two cohorts, fifth- and sixth-graders, mostly born in 1971, and seventh- to ninth-graders, mostly born in 1968), all of whom were part of the Berlin Youth Longitudinal Study (BYLS; for a description of the general approach of this study see Silbereisen & Eyferth, 1986). The second Berlin sample and the samples from Bologna and Warsaw were composed of students attending Grades 6, 9, 10, and 12. Participants from Phoenix came

from Grades 2, 3, 5, 6, 7, and 8. Thus, the samples include data from childhood through adolescence. Information on the age and size of all groups of male and female participants is provided in Table 1.

For the appropriate grades in Berlin, Bologna, and Warsaw, the sample contained students from various vocationally and academically oriented tracks. As these tracks are not totally equivalent across countries, one cannot statistically control for their influence. Instead, students were sampled in a manner that reflected the proportion of each track in the respective school populations. Owing to sample size, however, this is only an approximation. In the entire sample, about 65% of females and 55% of males attended vocationally oriented tracks. In Berlin and Warsaw, students came from a variety of school districts and schools, and thus a diversity of social backgrounds was sampled.

INSTRUMENTS

To assess individuals' tendencies to use various evaluative standards in the context of prosocial behavior, participants were given the Prosocial Motivation Questionnaire (PSMQ; see Silbereisen et al, 1986.³ PSMQ consists of 24 scenarios. Each describes a situation in which there is an opportunity for prosocial action. In half of these, the participant ("you" in the stories) is described as having helped; in the other 12, the participant refrained from helping. Thus, the decision to assist or not is already made in the scenarios.

An example of one of the scenarios is as follows: "It's a nice day. After school you go to visit a friend. He's helping his parents to clean up the house. Because it's going to take some time before they get done, you decide to help your friend clean up. What would have been some of the reasons for you to do so?"

After each scenario, five possible motives were presented; each corresponds to one of the motives discussed by

TABLE 1
**Mean Age (Years-Months), Gender Composition, and
 Size of Samples in Berlin, Bologna, Warsaw, and Phoenix**

Site	Grade	M age		N		
		male	female	male	female	total

Long version of PSMQ:						
Berlin						
	6 ^a	12-9	12-8	39	42	81
	9 ^b	15-8	15-5	43	52	95
	10 ^b	16-8	16-6	43	41	84
	12 ^c	18-6	18-5	17	44	61
Bologna						
	6 ^a	11-6	11-6	22	29	51
	9 ^d	14-7	14-8	38	32	70
	10 ^e	15-9	15-7	24	34	58
	12 ^e	18-11	18-10	18	40	58
Warsaw						
	6 ^a	12-1	11-11	8	11	19
	9 ^a	15-2	14-10	10	12	22
	10 ^f	16-0	16-0	10	19	29
	12 ^g	18-9	18-11	19	36	55

TABLE 1 Continued

Site	Grade	M age		N		total
		male	female	male	female	
Short version of PSMQ:						
Berlin						
	5-6	11-6	11-6	324	351	675
	7-9 ^h	14-7	14-5	266	274	530
Phoenix						
	2-3 ^a	8-5	8-4	56	64	120
	5-6 ^a	11-5	11-3	59	57	116
	7-8 ^a	13-3	13-4	19	22	41

NOTE: The samples reflect the stratification into educational tracks. Depending on grade and country, students attended vocationally oriented or academically oriented schools. The following figures give percentages of students attending vocationally oriented tracks: ^ano tracking; ^bfemale 35%, male 50%; ^cfemale 80%, male 12%; ^dfemale 44%, male 76%; ^eonly vocational tracks were in the sample because the school principal declined our request to involve students from the academic track; ^ffemale 74%, male 60%; ^gfemale 61%, male 32%; ^hfemale 69%, male 64%.

Reykowski (1984). Examples of categories are the following for the scenario just presented: (1) after sitting all day in school, I thought it would do me good to do some work and get into the groove (hedonism); (2) I remembered that I still had to clean up our basement and figured that then my friend would help me too (self-interest); (3) because I know that if I helped, the work would get done more quickly (task orientation); (4) I take it for granted that friends help each other, if they didn't they wouldn't really be friends (other-interest); (5) since everyone was pitching in, I didn't want to just sit there and do

nothing (conformity). The order of motives was randomly determined for each scenario.

Participants rated each category on a 5-point scale that expressed the colloquial equivalent of "I would probably think that way": not at all (coded 0); probably not (1); perhaps (2); most probably (3); quiet surely (coded 4). Thus, each rating was a self-attribution of a motive representing the five evaluative standards. Scenarios and responses were formulated on the basis of interviews with German adolescents.

Only the responses for the helping scenarios are analyzed in this study. A long and a short version of the instrument were devised. For the long version, three sets of factor analyses with the German, Polish, and Italian samples were run (one set for each country), a different factor analysis being computed for each motive for each sample. They revealed a strong general factor for each motive. Consequently, items (i.e., scenarios) that did not load on this factor were deleted. Depending on the particular motive, 9 to 12 items remained. Scales formed by summing the ratings had alpha coefficients ranging from .60 to .86 (median = .78). This long version was completed by students from the smaller Berlin sample as well as the Bologna and Warsaw samples.

Restrictions in the available testing time for the Phoenix and the BYLS sample from Berlin led us to derive a short version of the instrument. With the exception of hedonism, which contained two items (because of the deletion of one item), each motive was assessed by three scenarios that were deemed representative as evaluated by the factor loadings mentioned above. The median alphas for the sum scales were .40 for Berlin and .42 for Phoenix. These alphas are what would be expected if a small number of items from a highly reliable scale were used for a short scale (Nunnally, 1967).

The wordings of a few items were adjusted slightly for use in the various cultures. For example, in the German version of one scenario, a Turkish student needed assistance in a store. In Phoenix, this student was labeled a Mexican. In Warsaw he was

a stutterer, and in Bologna the child was a Sicilian. Another change in the long version concerned the make of a car in one scenario.

As reported elsewhere (Boehnke, 1988), data from the long version were correlated with a standardized German measure of social desirability. No substantial relation was found. Similarly, none of the indices of prosocial motivation was correlated with an index of social desirability for the Phoenix sample (the index was 10 items from Crandall, Crandall, & Katkovsky, 1965). Thus, if self-presentation concerns play a role at all, these influences seem to be weak and unsystematic.

PROCEDURE

The PSMQ was group-administered in the schools to children in all samples. However, the questionnaire was read aloud to the elementary school children in the United States. In all cases except in Bologna, children also completed other questionnaires or measures, which are not relevant to the topic of this paper.

The children's responses for each motive were summed and averaged across scenarios. The five resulting scales henceforth are labeled as follows: hedonism, HH; conformity, CH; self-interest, SH; task orientation, TH; and other-orientation, OH. This last category included a range of items that, according to Reykowski's (1984) conceptualization, are homogeneous. However, if these items were to be coded according to Eisenberg's (1986) criteria, they would reflect a range of considerations including stereotypic conceptions of good and bad behavior, internalized norms or values, role taking or empathy, internalized affect based on the consequences of one's actions, and concern with the quality of interpersonal relationships (Eisenberg-Berg, 1979).

RESULTS

Students' relative preference for each of the five motives was computed by standardizing scores for each scale within each child (i.e., the score for a given scale minus the mean for all five scales for the individual student, divided by the standard deviation for the individual's five scores).

Because the students from Berlin (smaller sample), Warsaw, and Bologna attended the same grades, the data from these three samples were analyzed with the same MANOVA. This procedure provided an opportunity to examine effects of grade and, at the same time, check for differences across cities. In addition, two separate MANOVAs were computed for the Phoenix and Berlin (BYLS) samples.

In all analyses except those for the BYLS sample (which consisted of only two age groups), linear and quadratic trends were computed for grade and all interactions involving grade. Thus, it was possible to determine whether relative preference for a given motive increased or decreased with age, or peaked and then decreased (or vice versa), as discussed in the hypothesis concerning effects of school transition.

In the presentation of results, significant multivariate effects are reported first, followed by significant univariate effects. Single post hoc comparisons are given whenever appropriate. Eta^2 (%) is additionally reported for major results in order to provide information on the strength of effects. No single effect was higher than about 5%, and the effects taken together never accounted for more than 10% of the variance.

COMPARISON ACROSS CITIES: BERLIN, BOLOGNA, AND WARSAW

The combined analysis was a 2 (Sex) \times 4 (Grade: 6, 9, 10, 12) \times 3 (City: Berlin, Bologna, Warsaw) MANOVA, the dependent variables being the five scales reflecting the five different prosocial motives. The multivariate main effects of the linear age trend, sex, and city were significant, $F(4, 662) = 10.71$,

$F(4, 662) = 9.70$, $F(8, 1326) = 6.19$, all $ps < .001$, as were the Sex \times City interaction, $F(8, 1326) = 2.47$, $p < .05$, and the City \times quadratic trend interaction, $F(8, 1326) = 3.03$, $p < .01$.

Across-age trends. The linear trend effects of age were highly significant for CH and TH, $F(1, 665) = 18.78$ and 33.18 , respectively; $ps < .001$, Preference for CH decreased with age, whereas preference for TH increased with age (see Table 2, upper three blocks). Preference for HH and SH was low at all ages, whereas preference for OH was highest at all ages except for Grade 12 in Warsaw. The strength of effect was highest for TH, with η^2 equal to 4.6%. These results fit well with the hypothesized pattern. One should bear in mind, however, that the data are cross-sectional.

City and gender differences. The effect of City was significant for HH, SH, CH, and OH, $F(2, 665) = 7.17$, 12.92 , 4.68 , and 4.57 ; $p < .001$, $.001$, $.001$, and $.01$, respectively. η^2 (%) was 2.0, 3.2, 2.9, and 1.4. It is important to note that the multivariate tests revealed no significant interaction between linear age trend and city. Thus, as hypothesized, there were no cultural differences in the developmental pattern (except for the one quadratic trend \times City interaction to be discussed soon).

Warsaw and Bologna students differed on all scales that had shown significant overall effects, $F(1, 665) = 10.20$, 20.93 , 9.43 , and 8.01 ; $p < .001$, $.001$, $.01$, and $.01$, for HH, SH, CH, and OH, respectively. Warsaw students had higher preferences for HH and CH (M s for the Warsaw-Bologna comparison = $-.64$ vs. $-.79$, and $-.14$ vs. $-.30$, respectively). Bologna students scored higher on SH and OH (M s for Warsaw and Bologna = -1.01 vs. $-.79$, and $.93$ vs. 1.04 , respectively). Berlin and Warsaw students differed only in their OH ratings, Berlin students scoring higher ($M = 1.03$) than Warsaw students ($M = .93$), $F(1, 655) = 5.01$, $p < .05$. In addition, Berlin students scored higher on HH than Bologna students ($M = -.67$ vs. $M = -.79$), $F(1, 655) = 4.14$, $p < .05$, whereas Bologna students had higher ratings for SH ($M = -.94$ vs. $M = -.79$), $F = 4.93$, $p < .05$. In sum, the overall main difference between

TABLE 2
Within-Subject Preferences of Prosocial Motives (Means)

Site	Grade	Motive				
		Hedonism	Conformity	Other-orientation	Other-orientation	
		Self-Interest	Task-orientation			
Long version of PSMQ:						
Berlin						
	6	-.65	-1.01	-.19	.72	1.12
	9	-.66	-.88	-.22	.79	.98
	10	-.77	-.91	-.22	.93	.98
	12	-.60	-.98	-.43	.96	1.05
Bologna						
	6	-.79	-.92	-.01	.68	1.04
	9	-.83	-.71	-.40	.87	1.07
	10	-.76	-.72	-.42	.89	1.01
	12	-.75	-.86	-.32	.91	1.02
Warsaw						
	6	-.67	-.86	-.06	.71	.89
	9	-.65	-1.04	-.14	.86	.97
	10	-.54	-1.02	-.09	.82	.83
	12	-.69	-1.05	-.20	.94	.83
Short version of PSMQ:						
Berlin						
	5-6	-.35	-.69	-.29	.56	.77
	7-9	-.51	-.65	-.33	.75	.74
Phoenix						
	2-3	-.17	-.79	.11	.54	.32
	5-6	-.53	-.54	-.08	.75	.39
	7-8	-.38	-.55	.04	.59	.30

cities is primarily due to a rather impressive contrast between students from Bologna and Warsaw in their mean response on almost all motives.

Gender differences were observed for the HH, SH, and TH scales, $F(1, 665) = 11.24, 30.25, \text{ and } 7.66, p < .001, .001, \text{ and } .01$. Girls were higher on HH ($M = -.66$) than boys were ($M = -.77$) and also were higher on TH ($M = .89$ and $.79$ for girls and boys, respectively). Boys were higher ($M = -.79$) than girls ($M = -.98$) for SH. Eta^2 was highest for SH (4.0%).

The only effect that was significant for the City \times Sex interaction was for OH, $F(2, 665) = 5.83, p < .01$. According to within-city analyses, the gender difference in OH held only for the Warsaw students, $F(1, 116) = 7.18, p < .01$. Girls preferred OH ($M = 1.00$) more than boys did ($M = .81$). This result recalls the already-mentioned tendency of Polish adolescents to stress the traditional sex typing of basic values more than their Berlin age mates.

Transition in school. The univariate City \times quadratic trend interaction was significant only for CH, $F(2, 665) = 8.01, p < .001$; the quadratic trend was significant for Bologna, $F(1, 229) = 11.82, p < .001$, and Berlin, $F(1, 320) = 4.33, p < .05$. Relative preference for conformity decreased substantially and then increased somewhat for the Bologna sample. In contrast, it was fairly stable for Berlin students in Grades 6, 9, and 10 and then decreased drastically (see Table 2). These differences do not, however, support the hypothesized systematic relation between time of transition and change in prosocial motivation.

SEPARATE ANALYSES FOR THE BERLIN AND PHOENIX SAMPLES

Berlin. For the BYLS sample, use of the motives was examined with 2 (Sex) \times 2 (Age group: younger vs. older) MANOVAs. The multivariate main effects of sex and age were significant, $F(4, 1200) = 4.38$ and $8.81, ps < .01$ and $.001$.

The univariate effects for age were significant for HH and TH, $F(1, 1203) = 12.83$ and 29.75 , $ps < .001$. Eta² for the highly significant TH was 2.6%. Preference for HH decreased with age, whereas TH increased (see Table 2). SH was low for both age groups; OH was relatively high for the younger cohort, whereas TH had the slight edge over OH in the older cohort. This pattern of findings was consistent with our hypothesizing.

The univariate effects for sex were significant for SH and TH, $F(1, 1203) = 7.78$, $p < .01$; $F(1, 1203) = 7.83$, $p < .01$, respectively. Eta² was below 1% for both univariate effects. Boys rated SH ($M = -.61$ higher than girls did ($M = -.72$); girls rated TH ($M = .69$) higher than boys did ($M = .59$).

Phoenix. Similar 2 (Sex) \times 3 (Grouped grades: 2-3, 5-6, 7-8; children in adjacent grades were grouped because those from Grades 2 and 5 attended one school whereas those from Grades 3 and 6 attended another school) MANOVAs were computed. The multivariate effects were significant for both the linear and the quadratic age trends, $F(4, 270) = 2.97$ and 2.46 , $ps < .05$, but not for sex. The univariate effects of the linear (age) trend were significant for HH and SH, $F(1, 270) = 5.60$ and 5.91 , $ps < .05$. The highest eta² amounted to 3.2% for HH. HH decreased with age whereas SH increased with age (see Table 2), although the latter remained the lowest in relative preference. The univariate quadratic trend was significant for TH, $F(1, 270) = 4.03$, $p < .05$. TH increased in preference ratings in elementary school and decreased for children in junior high school.

DISCUSSION

The Prosocial Motivation Questionnaire was designed to assess preferences for hedonistic, self-interested, conformity-oriented, task-oriented, and other-oriented motives. The most striking finding in this study was the consistency in relative preference of these prosocial motives within the various age

groups and samples. This was true despite the fact that two different forms of the PSMQ were administered (the long form to some samples and the short to others). This consistency may be interpreted as indicating commonalities in values and motives across groups.

In all cases, the two egocentric motives were least preferred, the self-interested motive being the lowest in preference for all age groups in all samples except for two grades in Bologna (for which hedonistic and self-interested motives were very similar in score). Moreover, for all groups in all samples, the conformity motive was preferred more than the two extrinsic motives (hedonism and self-interest) and less than the two intrinsic motives (task orientation and other-orientation). The other-oriented motives were the most preferred (or nearly equivalent to the most preferred motive) for all but the youngest sample (Phoenix), and task-oriented motives were also highly endorsed in all groups.

Analyses of the effects of age group, city, gender, and their interaction resulted in many significant results. However, the strength of these effects was rather small. Moreover, none of the effects dominated the others in terms of effect size.

Age-related (linear) trends were mostly as hypothesized, and as predicted, there was considerable consistency in age trends across cities. With one exception, the only type of motive to be more preferred with age in any sample was task orientation. Relative preference for task-oriented motives increased in the combined Berlin-Bologna-Warsaw analysis and also for the sample from the Berlin Youth Longitudinal Study. The other-oriented motives, also hypothesized to increase in preference with age, were obviously valued so highly from the earliest age sampled that an increase was relatively unlikely.

In contrast to the generally increasing trend in preference for task-oriented motives, all age-related declines were for the less developmentally mature motives. Preferences for hedonistic motives decreased in the two youngest samples (Phoenix and the Berlin BYLS sample). Moreover, relative preference for

conformity motives generally decreased with age in the adolescent (i.e., three-city) sample. The decrease for hedonism in elementary school and for conformity in high school is consistent with Eisenberg's findings for prosocial moral judgment (Eisenberg et al., 1983, 1987; Eisenberg-Berg, 1979).

Concerning the effects of transition in the school context, the only support for the hypothesis comes from the American sample. In Phoenix there was an increase in preference for task-oriented motives in elementary school, followed by a moderate decrease in such preferences in junior high school. However, the junior high school included in the sample drew students from a number of elementary schools (some with differing socioeconomic compositions) besides those that the younger children in this group attended. Thus, it is possible that sampling peculiarities other than transition effects were responsible, in part, for the decrease in task orientation.

Similar arguments may be raised for the age-related difference in conformity, the only other instance of a quadratic trend. Whereas the large decline between Grades 10 and 12 among Berlin students was consistent with findings for Warsaw adolescents, Bologna students showed a moderate increase in preference for conformity motives in Grade 12. However, only high school students from vocationally oriented tracks took part in the Bologna study. It seems logical to assume that this noncomparability in sample composition across grades for Berlin and Bologna accounts for the quadratic trend.

There was a main effect of city in the combined analysis of data from Berlin, Bologna, and Warsaw. One sizable difference was the contrast between Bologna and Warsaw in the preference for conformity motives, Warsaw students scoring higher. Warsaw students also rated hedonistic motives higher, whereas Bologna students were higher on other-orientation and self-interest. These effects do not seem to be due to lack of equivalence across samples in educational tracking. The older adolescents in Bologna attended vocationally oriented schools only, whereas the sample was more balanced in

Warsaw in terms of educational tracks. As there is a tendency for students of higher educational tracks to devalue less mature motives (see Silbereisen et al., 1986), one would have expected the Italians to score higher on preference for conformity motives. Rather, the results with regard to conformity and other-oriented motives may reflect the difference between Anglo-Germanic and Latin countries in attitudes toward symmetry of power in interpersonal relations (Hofstede, 1980). Specifically, the Polish students seemed to prefer motives reflecting conformity to societal or authorities' expectations, whereas the Italian students' preference for an other-orientation may reflect a greater emphasis on equality. However, we have no ready explanation for the difference in self-interest and hedonistic motives across cities.

There were some gender differences for the older samples (i.e., for all but the Phoenix sample). Specifically, when there was a gender difference for the developmentally more mature motives (task orientation and other-orientation), it was due to females' valuing these motives more than males did. In contrast, in two of the three instances in which there was a gender difference in the types of motives that were less preferred (and can be viewed as developmentally immature—i.e., hedonism, self-interest, and conformity), boys expressed higher preferences. The fact that these gender differences were evident only among children in Grade 6 or higher is consistent with the finding of Eisenberg et al. (1987) that girls expressed more mature prosocial moral judgment in sixth grade but not in prior grades. Such a difference in orientation might be related to parents' use of different socialization practices with boys and girls. Parents tend, for example, to punish boys more than girls (Maccoby & Jacklin, 1974), and authoritarian parental practices have been associated with an external moral orientation (such as hedonism or self-interest), whereas inductive practices have been positively related with children's endorsement of intrinsic evaluative standards (Hoffman, 1977; Boehnke,

1988). Although this explanation is speculative, it is consistent with the existing literature on gender differences.

NOTES

1. Hofstede's (1980, p. 99) definition is as follows: "The power distance between a boss B and a subordinate S in a hierarchy is the difference between the extent to which B can determine the behavior of S and the extent to which S can determine the behavior of B."

2. However, this grade is called Grade 8 in Poland, as counting of grades starts with the grade comparable to Grade 2 in the other countries (Grade 1 is considered to be a part of preschool in Poland).

3. A copy of the PSMQ may be obtained from the second author.

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