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5. Cross-cultural perspectives on self-efficacy

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The present chapter addresses three major issues. First, we analyze how culture might affect the various sources of self-efficacy belief systems. For this purpose, the dimensions of cultural diversity specified by Hofstede (1980, 1991; see also Triandis, 1989) and their impact on the sources of self-efficacy information in family and school contexts are examined. Second, we compare children's self-efficacy beliefs in East and West Berlin, Moscow, and Los Angeles based on data from an ongoing research project coordinated by G. Oettingen, T. D. Little, and P. B. Baltes. The results demonstrate cross-cultural variations in efficacy beliefs that are congruent with differences in efficacy-relevant influences hypothesized to be operating in each culture's school contexts. Third, we discuss the critical question of whether self-efficacy effects on cognition, affect, and motivation are universal across cultures. We speculate on the type of research that would be needed to demonstrate universality, which raises issues of individual versus collective efficacy.

Culture and the sources of self-efficacy information

Bandura (1977, in press) specifies four information sources that people use in forming their sense of personal efficacy. The most important source is *performance experiences*. Successes build a sense of self-efficacy; failures weaken it. Repeated early failures especially may have the most adverse effect if they cannot be discounted as due to lack of effort or unfavorable circumstances. Failures are less detrimental if people have already developed a strong sense of self-efficacy through early frequent successes. Successes achieved in the face of adversities are particularly beneficial. A strong sense of efficacy acquired in one area of functioning may transfer to

other areas, thus creating a general sense of personal efficacy (Bandura, 1977, 1986).

Other people's attainments can also influence self-efficacy formation. First, models provide a standard of judging one's capabilities. Most achievements – for example, school grades – are judged relatively, and one's own capability is inferred by comparing one's attainments to those of one's peers (Festinger, 1954). Second, even without personal performance experiences, individuals may infer their self-efficacy by observing the successes and failures of others. Thus, through *vicarious experience*, the successes of similar others raise one's own sense of efficacy, whereas their failures lead to lowered levels. Observers may derive a boost in self-efficacy even from competent models who are dissimilar simply because they transmit knowledge, skills, and strategies that enhance competencies.

Competent people can also influence self-efficacy beliefs through active influence attempts. Such *verbal persuasion* can be particularly effective when the communicator is endowed with trustworthiness, expertise, and attractiveness (Hovland & Weiss, 1952; Petty & Cacioppo, 1986). If, however, the communicator's appraisals portray the target person as unrealistically efficacious, failure experiences will quickly erase any temporary boost in self-efficacy.

A final source of efficacy information is provided by one's *physical and emotional reactions*. For example, a low level of arousal while coping with a difficult or threatening course of action would indicate an assured sense of efficacy. Conversely, high states of perturbing emotional arousal are likely to be interpreted as self-inefficacy. With regard to physical states, the experience of pain and fatigue may be viewed as a sign of inefficacy. Mood states such as depression also affect judgment of personal efficacy. People judge themselves as efficacious in positive moods and as inefficacious in depressed moods (Kavanagh & Bower, 1985). It is important to note that the interpretation of somatic and emotional states with regard to self-efficacy judgments is complex. People take into account the experienced level of activation as well as their knowledge of how performances have been affected by emotional arousal in different past situations (see Bandura, 1977, 1986).

Although there are four potential sources of efficacy information, people may not always have access to all of them. The opportunity for vicarious experiences, for example, may be limited because there are few competent models from whom one can learn. Moreover, individuals may sample selectively and weight and integrate the information available in their preferred manner. The persuasive efforts of others (e.g., therapists)

may be discounted in light of one's own deferent performances. Conversely, one may readily embrace positive verbal persuasions and disregard negative performance experiences.

These considerations imply that forming beliefs of personal efficacy is a complex process of self-appraisal which entails selecting, weighting, and integrating information from multiple sources. It is in this appraisal process that culture may play its influential role. Culture may affect not only the type of information provided by the various sources, but also which information is selected and how it is weighted and integrated in people's self-efficacy judgments.

How should we conceptualize this role of culture? We assume that culture reveals its effect on self-efficacy beliefs by affecting the fundamental systems and institutions of virtually all human societies: the family, the school, the workplace, and the community. Everyday conduct in these different contexts provides information for one's self-efficacy in different kinds of pursuits. Understanding how cultures affect everyday conduct in these major societal systems can help to clarify how people's self-efficacy appraisals vary across cultures. We will first examine the crucial dimensions on which cultures differ.

Dimensions of cultural differences

Culture may be conceived of as "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede, 1980, p. 25). This definition suggests that value systems constitute one major source of cultural differences. It has long been argued that cultures differ primarily in their system of values (Inkeles & Levinson, 1969). Recent attempts to investigate empirically these differences have identified a small number of crucial cultural dimensions (Hofstede, 1980, 1991; Triandis, 1989). Hofstede (1980, 1991) analyzed cultural value systems in matched samples of employees belonging to the same multinational business in more than 40 countries. He identified four dimensions of cultural differences, which he defined as follows:

(a) *Individualism/Collectivism*. Collectivist cultures promote the view that people belong to in-groups that demand lasting loyalty from which members cannot easily free themselves. In return, people receive protection from the in-group. In contrast, individualist cultures promote the view that people look primarily after their own welfare and their immediate family's interests. They value an autonomous definition of the self and individual goals more than group goals (see also Triandis, McCusker, & Hui, 1990).

(b) *Power distance*. In cultures with large disparity in power, people are expected to accept inequality in power. This is especially true for the less powerful members of the culture. People in cultures with small power distance value a more equal distribution of power.

(c) *Uncertainty avoidance*. People in cultures of strong uncertainty avoidance are easily distressed by new, unstructured, unclear, or unpredictable situations. They try to avoid such situations by maintaining strict codes of conduct and a belief in absolute truths. Members of such cultures tend to be compulsive, security seeking, intolerant, aggressive, and emotional. In contrast, people in cultures of weak uncertainty avoidance tend to be relaxed, tolerant, risk accepting, contemplative, and unaggressive.

(d) *Masculinity/Femininity*. A masculine culture strives for a maximal distinction between men and women. Men are expected to strive for material success, to be assertive, ambitious, and competitive, whereas women are expected to be successful in serving the communal side of life, such as caring for children and the weak. Women are not expected to take on professional jobs. In contrast, feminine cultures also value men who care for the nonmaterial aspects of life and women who obtain professional and technical jobs. In higher education men and women tend to pursue studies in the same subjects, whereas in masculine societies different subjects are "proper" for men and women.

Similar dimensions of differences in cultural values have been highlighted by other researchers (e.g., Markus & Kitayama, 1991; Triandis, 1989). Returning to the question of how culture affects self-efficacy appraisals, we turn next to an analysis of how the various dimensions might express themselves in major societal systems and institutions, such as the family and the school.

Cultural differences and self-efficacy appraisal

Sources of efficacy may vary in three ways: First, some sources may be more *prevalent* than others. For example, in societies that are rigidly segregated by gender, women may have less exposure to male models and vice versa. Second, even when sources are equally prevalent they may take different *forms*. For example, in collectivist systems children get feedback on how their in-group performed as well as on their individual performance, whereas in individualist systems children get feedback only on their personal performance. Third, sources might differ in how they are *valued*. For example, emphasizing individual attainments should be prized more in individualist systems than in collectivist systems.

Individualism/collectivism. Hofstede (1989, 1991; see also Triandis, 1989; Triandis et al., 1990) claims that families in cultures high on collectivism teach their children to love and respect the needs of their in-group. In school, children pursue performance goals demonstrating required competencies more than learning goals of expanding one's competencies (Ames, 1992; Dweck & Leggett, 1988), and they create a social reality that makes their performance outcomes noticeable to their collective. In cultures high on individualism, children are expected to learn how to learn. Performance outcomes are seen as instrumental to achieving self-actualization and the realization of one's individual potential. This striving does not cease when the needs of the in-group are satisfied. Rather, there is a constant attempt to realize one's individual potential through the pursuit of personal goals.

Children in individualist cultures should focus their self-appraisals of efficacy on information concerning their personal performance attainments (e.g., improvements or declines; see Rosenholtz & Rosenholtz, 1981). In contrast, in collectivist cultures the evaluation by in-group members should be the most important source of efficacy information, with modeling by other in-group members also being influential. Whereas children in individualist cultures may be more in tune with their private emotional states, children socialized in collectivist cultures should be more responsive to the preference of their in-group and thus emotions are used more strategically (Markus & Kitayama, 1991). Accordingly, emotional states should be a more immediate and thereby more prominent source for the self-efficacy appraisals of children raised in individualist systems than in collectivist systems (i.e., idiocentric versus allocentric orientations, respectively; see Triandis, 1989; Triandis, Leung, Villareal, & Clack, 1985).

Consider an example. Youth who approach the end of schooling have to assess their self-efficacy for different occupations in making career decisions (Betz & Hackett, 1986; Lent & Hackett, 1987). If becoming a banker is considered an appropriate option, people will appraise their efficacy for performing the banker role. A youngster in an individualist culture would give heavy weight to past performances in relevant academic domains. Affective reactions to images of being a banker might also be considered. For a youth in a collectivist culture, the self-appraisal of efficacy would center on the in-group's belief that the person has the capabilities to become a successful banker, and whether other members of the in-group might have higher talent for this occupation. The differential preference for sources of efficacy information by youths raised in individualist versus collectivist systems should be most pronounced when the goal pursuit in

question is fully individualist (e.g., promoting one's personal potential) or fully collectivist (e.g., promoting one's in-group potential), respectively.

Power distance. Hofstede's (1986, 1991) ideas on how power distance or power disparity affects family and school life focus on young people's relation to authority. In a culture with large power differential, children are taught to obey their parents and to treat them as superiors. Education is teacher-centered (see Stipek, 1988), in which students expect teachers to control the educational activities. The study material is supposed to reflect the wisdom of the educational personnel, who are not to be contradicted or criticized. Parents are expected to support the teachers. In contrast, in cultures with small power differential, children are encouraged to express their views freely in the family and to treat parents as equals. Education in school is child-centered (see Stipek, 1988, 1991). Teachers expect students to initiate communication, speak up and criticize, and to find their own direction and pace of learning. The study material can, in principle, be obtained from any competent person. Parents are expected to side with the students.

The teacher is a powerful influence agent under conditions of large power differential. When children assess their self-efficacy in school, their appraisals should be largely the product of teachers' evaluations and actions. Accordingly, children would tend to judge their capabilities in terms of teachers' evaluations. Peers who serve as models are also perceived through the eyes of teachers. Since teachers are endowed with many attributes of successful influence agents (e.g., expertise, power), their evaluative feedback should carry heavy weight in children's self-appraisals of their own capabilities. With respect to affective states, emotional distress over poor academic performance would contribute a sense of inefficacy. Unquestioned authority of teachers may heighten negative emotional arousal. Thus, children's emotional states should become a prevalent informational source for self-efficacy judgments.

For children in cultures of low power differential things are quite different. Because children are allowed to exert influence on their direction and contents of learning, they largely become the creators of their performance history. Accordingly, evaluating past performance means sampling information comparatively free of authorities' influences (e.g., teachers, parents, peer group heroes). The impact of authority is further diminished because the verbalized evaluations of teachers in such cultures are not given undue weight. Finally, children's vicarious experiences regarding peer performances and interpretation of emotional states are compara-

tively less affected by the force of teacher or parent evaluations because of their lesser influence.

It appears, then, that children in cultures with small power differential are offered more opportunities to operate as "origins" than as "pawns" (de Charms, 1968; Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Stiller, 1991). Accordingly, we expect the described differences in the appraisal of self-efficacy to be particularly pronounced when children evaluate their performances on projects they have chosen for themselves (e.g., to learn about Miro's paintings by employing various self-chosen strategies) as compared to children in cultures of large power differential, who pursue projects structured by authorities (e.g., learn about Miro's paintings by use of an assigned book).

Uncertainty avoidance. Hofstede (1986, 1991) speculates that in families of cultures with strong uncertainty avoidance, foreign influences are experienced as a source of high threat and stress, while familiarity and predictability are calming. In both family and school settings, emotional reactions are accepted and self-righteousness is prevalent. Teachers are expected to have all the right answers and to speak in a formal manner (Stroebe, 1976), and intellectual disagreement is interpreted as a personal offense. Students adapt to highly structured, unidimensional teaching strategies (Rosenholtz & Rosenholtz, 1981; Rosenholtz & Simpson, 1984), where materials and assignments are predefined and instructions are detailed. Students and teachers desire rules and readily embrace them.

In contrast, members of families in cultures with weak uncertainty avoidance are curious about new and foreign experiences, are unperturbed about facing new problems, and respond reflectively rather than emotionally to ambiguities (see also Sorrentino, Raynor, Zubek, & Short, 1990). Teachers are not expected to know all things. They use plain language, take intellectual disagreements as challenges, and seek parents' opinions and ideas. Students deal effectively with multidimensional teaching strategies (Rosenholtz & Rosenholtz, 1981; Rosenholtz & Simpson, 1984), which entail only partially structured learning materials, general instructions, and flexible, individualized pacing.

Children socialized in schools of strong uncertainty avoidance can look back on a fully designed performance history, since the highly structured teaching leaves few ambiguities. Regular and frequent performance feedback on the same assignments for all students in a given classroom produces precise rank ordering of one's own ability. The monolithic structure and social ranking serve as powerful influences in facilitating a precise

appraisal of one's performance-based self-efficacy. Students know exactly where they stand in the social comparative judgment of their own efficacy. Moreover, the verbal communications of the important persuaders (i.e., teachers, parents, and peers) are phrased unambiguously and reflect a high degree of social consensus. The experience of negative emotional states in dealing with new or unfamiliar activities reinforces a low sense of efficacy. Negative emotional states arising from unfavorable peer comparisons provide further reminders of personal inefficacy. Surpassing one's peers in the social ranking generates positive emotional states that tend to enhance self-appraisals of efficacy.

Children raised in families and schools that show less uncertainty avoidance face more ambiguity when it comes to appraising their efficacy. Performance feedback and social ranking by performance attainment is less certain and less possible because of individualized instruction. Hence, inferences from performance attainments as well as from vicarious experiences provide leeway for personal self-evaluation. This permits self-enhancing attributions and judgments of capability (Abramson, Seligman, & Teasdale, 1978; Bandura, 1986; Taylor, 1989; Taylor & Brown, 1988). In addition, the less authoritative social evaluations can be used in one's own service. Similarly, emotional states should be a less telling source for self-efficacy judgments. This is because ambiguity is more of a challenge than a threat. These effects should be particularly pronounced when children in strong uncertainty-avoidant cultures strive for certainty-oriented goals (e.g., becoming a civil clerk) and children in weak uncertainty-avoidant contexts strive for uncertainty-oriented goals (e.g., becoming a scientist).

Masculinity-Femininity. In masculine societies families stress achievement and competition. In school, teachers single out high-achieving students as the ideal and highlight students' academic successes. Students are competitive, publicize their successes, and regard their failures as calamities. Subject matters that are instrumental to promoting professional careers are valued, and studying academic subjects that in sex-typed societies are labeled feminine is seen as irrelevant for men. In societies that are more feminine, families stress social interrelatedness and try to solve conflicts through compromises (e.g., countries high on femininity include Denmark, Norway, and Sweden). In school, the norm is set by the average student, students' social adaptation is valued, and academic failure is not taken too seriously. The choice of academic subjects is determined by intrinsic interests, and men feel free to pursue subjects traditionally regarded as feminine.

Male children in masculine societies face stiff performance competition. Therefore, they are sensitive of how others are performing in appraising their own self-efficacy. Successes that exceed those of their competitors and praise of personal accomplishments in comparison to others increase self-efficacy. The emotional states stemming from personal comparison are weighted most heavily. In feminine cultures, performance attainments should affect self-efficacy judgments, regardless of gender or whether they surpass those of others or fall below them. Again, the different cultural effects on self-efficacy appraisals should be particularly pronounced for male children in masculine cultures when pursuing careers stereotyped as masculine (e.g., becoming a broker) and for children in feminine cultures who choose traditionally feminine vocational pursuits (e.g., becoming a social worker), respectively.

Summary. The preceding discussion has analyzed how cultural differences might promote different self-efficacy appraisals. We have relied primarily on the salient cultural dimensions singled out by Hofstede (1980), and have used his speculations (Hofstede, 1991) on how cultural variations on these dimensions might be manifested in the social practices of familial and education systems. These notions suggested ways in which cultural variations impact on self-efficacy appraisals.

Cultural orientations are not dichotomous, and the cultural dimensions discussed do not operate *in unisono*, as the preceding discussion might imply. These various dimensional properties should be conceived of as continuous variables operating in concert. Each given culture is characterized by a score on each of these dimensions (see Hofstede's 1980 study with employees of IBM in 40 different countries). Furthermore, the dimension of individualism/collectivism correlates positively and substantially with power distance; that is, the more individualist a society is, the smaller it is in power differential. However, this correlation disappears when national wealth is partialled out. Uncertainty avoidance and masculinity/femininity are neither interrelated nor related to wealth.

A complete empirical analysis of the link between culture and self-efficacy appraisals would require selection of cultures representing the relevant dimensions. One would then observe social transactions in family and school settings of the different cultures to verify that they in fact differ in the expected ways. The social transactions are considered to be mediators of cultural effects on self-appraisals. Finally, one would assess the self-efficacy appraisals of the children.

At the Max Planck Institute for Human Development and Education, we chose a more parsimonious test of the effects of culture on self-efficacy appraisal. We selected several cultures that vary in their cultural orientation and at the same time are known to have created school systems differing in the respective features. More specifically, we assessed children's self-efficacy beliefs concerning their perceived academic capabilities in East Berlin, West Berlin, Moscow, and Los Angeles.

Empirical analysis of the link between culture and self-efficacy

Comparative analysis of East Berlin and West Berlin school systems

Before the fall of the Berlin wall, the school systems in East Berlin and West Berlin differed in four major ways (DDR: Schule im Aufbruch, 1990; Giessmann, 1990; Klier, 1990; Waterkamp, 1990). They included: (a) the role of the in-group, (b) respect for and power of teachers, (c) standardization of learning and teaching strategies, and (d) degree of social comparison.

In East Berlin, frequent teacher and peer evaluations were given both verbally and nonverbally in front of the entire "class collective" throughout the school day (Schnabel, 1977; Tautz, 1978; Weck, 1981; Witzlack, 1986). Teachers were expected to evaluate their students publicly at parent-teacher assemblies, at parents' workplaces, at meetings of the state-run youth organizations (i.e., Pioneers, Free German Youth; Waterkamp, 1990), or at other occasions outside the classroom. Public grading began at the first grade level. In addition to this early, pervasive, and differentiated performance feedback, teaching strategies in East Berlin were group-oriented and unidimensional. In all schools at given grade levels in the former GDR (East Germany), children received exactly the same materials, class assignments, and pace of studying, regardless of the children's preferences or potential, thereby enhancing evaluative social comparisons of performance attainments. Moreover, teachers were expected to adhere strictly to the prescribed curriculum, assignments, and pace of teaching, and were discouraged to accommodate the specific interests and needs of the individual children (Waterkamp, 1988, 1990).

The East Berlin educational practices were part of the general political program guided by official party doctrine aimed at educating (and reeducating) "harmoniously developed socialistic personalities" (Waterkamp, 1990, p. 263). Accordingly, one central goal of the educational philosophy in East Berlin was to foster in all students the ability to evaluate themselves "adequately" in the sense of adopting the authorities' (e.g., the

teachers') evaluations of students' competence and personality attributes (Franz, 1987). An "open and honest" atmosphere in the class-collective, grounded on accurate self- and peer evaluations, was considered to be essential for the successful development of an independent and responsible personality and of the collective (Falkenhagen, 1989; Finck, 1989; Franz, 1982, 1987, 1989; Krause, 1989; Wiese, 1989; see also Waterkamp, 1990). Teaching adequate self-evaluation was a primary objective for the teacher, the parents, and the class-collective. Finally, characteristics such as quietness and honesty were regarded as desirable, whereas feelings of "knowing better" and "superiority" were considered undesirable in children's personality development (Weck, 1981).

From time to time, students had to undergo "learning conferences," in which, after being required to publicly evaluate themselves, good students were praised by the teacher and the class-collective, whereas weak students had to explain remorsefully why they had failed and how they planned to avoid future failure (see also Franz, 1982; Schnabel, 1977; Tautz, 1978; Weck, 1981). Such personal revelations were then evaluated by both teachers and the class-collective. Moreover, every student was expected to feel responsible for the successes and failures of his or her in-group or class-collective (for similar regulations in Russia, see Bronfenbrenner, 1970).

In West Berlin, neither were public self-evaluations used, nor was performance feedback in the form of grades given until the end of the second grade. Privacy concerning students' grades was emphasized, though it could not be guaranteed. Children's performance records were kept in the schools, not to be discussed in public. Teaching strategies were less unidimensional (i.e., materials, assignments, and pacing were more individualized), and teachers were allowed to respect the individual needs of their students to a greater extent than in East Berlin. These differences in type of performance feedback and teaching strategies between the school systems of East Berlin and West Berlin were also reflected in different educational goals. In West Berlin there was no explicit educational goal of accurate self-evaluation. Rather, the educational philosophy focused on conveying factual knowledge to the children, and avoided influencing children to adopt an absolute truth or any other state-defined value system (Waterkamp, 1987, 1990).

Differences in self-efficacy beliefs

Clearly, in the East German school system, cultural values related to collectivism, large power differential, strong uncertainty avoidance, and

masculine-oriented achievement striving were more strongly modeled and promoted than in the West Berlin school system. For these reasons we predicted that East Berlin children would appraise their efficacy differently than would West Berlin schoolchildren. Specifically, we expected East Berlin children to have a lower sense of personal efficacy and to be more congruent in their judgments with their teachers' evaluations.

The commencement of school means that, for the first time, children have their performance attainments judged by a teacher, and find themselves compared to their classmates. School systems high on collectivism and power differential tend to make children's self-appraisals dependent on the opinions of in-group members (e.g., class-collective) and authorities (e.g., teachers). If, in addition, an orientation toward uncertainty avoidance and masculine strivings prevails, authorities and in-group members concur in making children classify themselves unambiguously in accord with the status assigned to them in the class-collective, thereby fostering adequate self-appraisals.

Adopting adequate self-appraisals should be a problem, however, particularly for students who are comparatively less intelligent. Given that children enter school with illusory optimism regarding their capabilities (Stipek, 1984, 1988), less intelligent students are more frequently confronted with performance feedback that contradicts their naive optimism. Accordingly, entering school implies for children with low intelligence that they will have to discard their initial positive self-views and adopt a critical self-evaluation reflecting their inefficacy. In the course of acknowledging a sense of personal inefficacy, failure feedbacks will more readily be accepted as accurate.

For intelligent children things are quite different, because the performance feedback they experience is largely consistent with their initial naive optimism. As a consequence, entering school does not imply a correction of their self-views. Highly intelligent children will thus establish a robust sense of efficacy regarding their school performances. Disparate failure experiences will not be integrated in these self-efficacy beliefs, as they are simply dismissed.

In school contexts where differentiated, unambiguous, and public performance feedback as well as unidimensional teaching strategies are practiced at the outset of schooling, children of low intelligence should be less able to escape the correction of their naive optimism than those in school contexts that practice delayed, undifferentiated, ambiguous, and private performance feedback on multidimensional teaching activities. In contrast, for the self-efficacy judgment of highly intelligent children, feedback

procedures and teaching strategies practiced in a given school context should carry less weight. Because these children receive predominantly positive performance feedback, correction of optimistic self-views is not much of an issue. It is not surprising, then, that the East German educational goal of teaching students adequate self-evaluation focused mainly on the low-performing students. It was acknowledged that these students should find it especially difficult to adopt an accurate self-view (see Franz, 1987; Schnabel, 1977; Weck, 1981).

These considerations imply that the differences in school context between East and West Berlin affect the self-appraisal of less intelligent children only. More specifically, East Berlin children of low intelligence should possess a weaker sense of self-efficacy than West Berlin children of low intelligence, whereas East and West Berlin children of high intelligence should not differ in their relatively strong self-efficacy. In addition, East Berlin children of low intelligence should conform more readily to their teachers' evaluations than their West Berlin counterparts, whereas no differences between East and West Berlin were expected for highly intelligent children.

In June 1990, before the unification of the two Germanies, Oettingen, Little, Lindenberger, and Baltes (1994) assessed the efficacy beliefs and school grades in 313 East Berlin children drawn from two schools. Students were sampled from grades two to six (i.e., 8 to 12 years of age). Data were compared to those of an age-matched study conducted 1 year later with 527 children of West Berlin. We administered the short form of the Control, Agency and Means-Ends Interview (CAMI; Little, Oettingen, Stetsenko, & Baltes, 1994a; Oettingen et al., 1994; Skinner, Chapman, & Baltes, 1988). Fifty-eight items assess (1) causality beliefs reflecting children's judgments on what causes good or poor school performance, (2) control beliefs, which measure children's evaluation of the extent to which they can influence their school performance, and (3) efficacy (agency) beliefs, which concern children's judgments as to whether they have access to the means that influence academic performance (i.e., effort, ability, luck, teachers' assistance). The 4-point response scale for all items ranged from "never" to "always." Efficacy belief items include: "I can really pay attention in class" (effort); "I'm pretty smart at school even without working very hard" (ability). These efficacy beliefs (also called agency beliefs) combine beliefs about means concerning effort, ability, and luck as a second-order factor and teachers' assistance as a first-order factor (Little et al., 1993). The factorial structure of the CAMI measure shows equivalent factor loadings and covariances across seven cultures, includ-

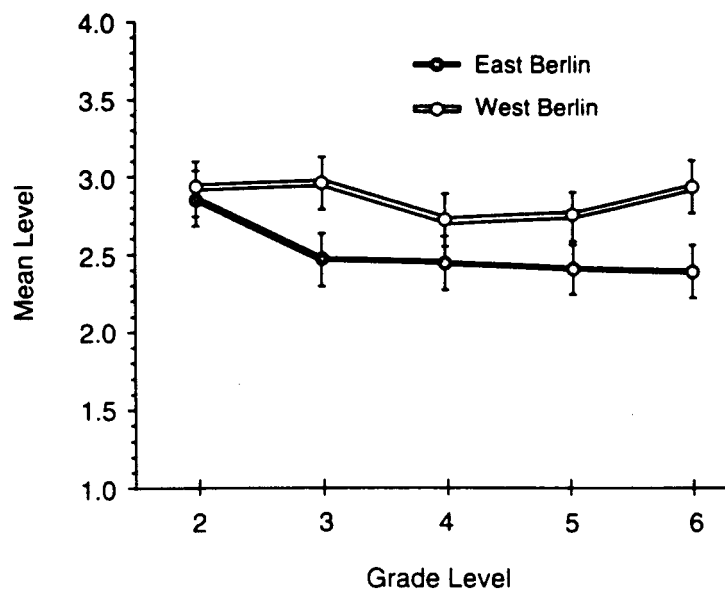


Figure 5.1. Mean differences of efficacy beliefs (effort, ability, and luck) by grade level in East and West Berlin children. Nonoverlapping error bars mean $p < .05$ (from Oettingen et al., 1994).

ing East and West Berlin, Moscow, and Los Angeles (Little et al., 1994a), indicating that it is a valid and reliable instrument across cultures. In contrast to the flexible conceptualization of efficacy beliefs, which may be applied to any type of performance (see Bandura, in press), agency beliefs refer to discrete a priori defined means (e.g., access to effort, ability, but also to the entity of luck) relevant in the school performance domain. In our various samples of children in middle childhood, agency beliefs pertaining to luck form one factor with those pertaining to effort and ability, indicating that children of this age group perceive having access to luck as an issue of their personal control.

East Berlin children had a lower sense of academic efficacy than West Berlin children on all aspects of personal agency. That is, they believed themselves to have lesser capability to exert effort in school, to be less smart, to attract less luck, and to attain less help of their teachers (Oettingen et al., 1994). The lower perceived efficacy of East Berlin children begins in the third grade and is pervasive for the rest of the school years (Figure 5.1).

Moreover, East Berlin children showed higher correlations between their efficacy beliefs and course grades than did West Berlin children, indi-

Table 5.1. Efficacy beliefs and course grades by grade level

Grade Level	East Berlin	West Berlin
2	.79**	.61
3	.74**	.60
4	.72*	.77
5	.75*	.67
6	.88**	.83

* $p \leq .01$ ** $p \leq .001$

Source: Oettingen et al., 1994

cating the impact of a consensual construction of competence in the East Berlin school system. As early as in the second grade level the correlations were $r = .79$ for East Berlin students and $r = .61$ for West Berlin students (see Table 5.1). The congruence between efficacy beliefs and course grades for East Berlin children (overall $r = .77$) is considerably higher than the correlations for American children (r 's about .30), as reported by Skinner, Wellborn, and Connell (1990), using a similar instrument.

The differential mean levels (Figure 5.2) between East and West Berlin children are mainly due to children at the lower levels of intellectual functioning, as assessed with the RAVEN matrices (Oettingen & Little, 1993). Highly intelligent children in East and West Berlin do not differ significantly in their self-efficacy judgments, whereas significantly lower scores are observed in East as compared to West Berlin children in the low and medium intelligence groups.

The difference between East and West Berlin children in their readiness to conform to their teachers' evaluations is also moderated by the children's intelligence. For East Berlin children who ranked in the lower third of intelligence, more than 80% of the variance in efficacy beliefs was explained by course grades (see Figure 5.3). This was 40% more than in the comparable West Berlin group. For the children of medium intelligence the difference was 16%, whereas no difference in explained variance was observed for the high intelligence group. This pattern of results cannot be explained by differences in variance of teacher evaluations (course grades) or agency beliefs, because the variances of these variables did not differ between groups of different intelligence (RAVEN scores) across and within East and West Berlin.

Correlations between efficacy beliefs and course grades increase with intelligence within the West Berlin sample (see Figure 5.3). This is in line

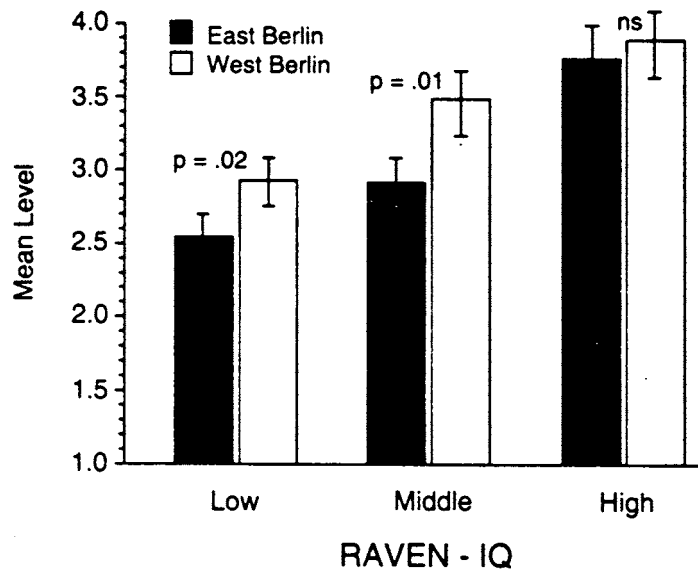


Figure 5.2. Mean differences of efficacy beliefs (effort, ability, and luck) by tripartite RAVEN-IQ in East and West Berlin children. Nonoverlapping error bars mean $p < .05$ (from Oettingen & Little, 1993).

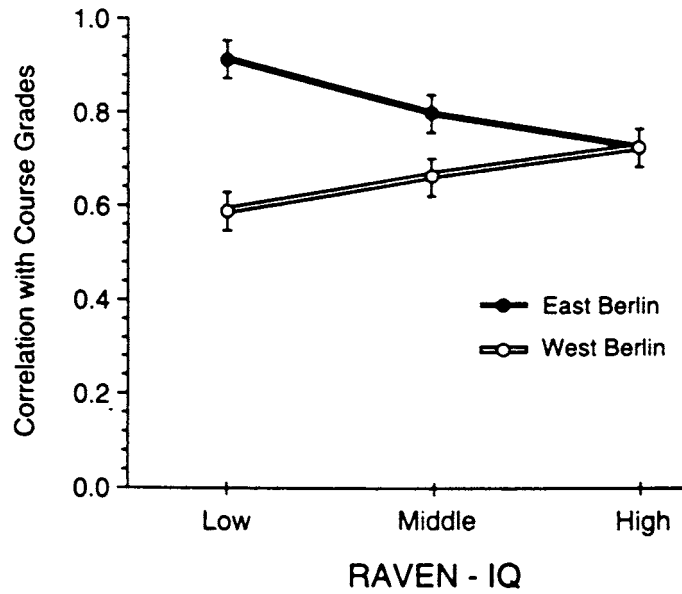


Figure 5.3. Correlations of efficacy beliefs (effort, ability, and luck) with course grades by tripartite RAVEN-IQ in East and West Berlin children. Nonoverlapping error bars mean $p < .05$ (from Oettingen & Little, 1993).

with findings of a meta-analysis by Mabe and West (1982) and the common observation in the Western literature that positive performance feedback is more readily accepted than negative performance feedback (for summaries, see Taylor, 1989; Taylor & Brown, 1988). In contrast, in East Berlin, where accurate self-evaluation was the explicit educational goal, the less intelligent children accepted their negative social evaluation more readily than the more intelligent children accepted their positive evaluation. Apparently, the East Berlin school context was successful in forcing less intelligent students to turn their initial performance optimism into a more negative self-view.

Implications for East and West Berlin children

Low efficacy beliefs undermine motivation, generate negative affect, and impair cognitive functioning. For example, people with low self-efficacy beliefs give up more readily in the face of difficulties, experience more anxiety, are less effective in using problem-solving strategies, and have lower aspirations (Bandura, 1986, 1991, in press; Betz & Hackett, 1986; Multon, Brown, & Lent, 1991; Pintrich & De Groot, 1990; Schunk, 1991; Wood & Bandura, 1989).

Accordingly, East Berlin children should be more handicapped by motivational and affective problems linked to a low sense of efficacy than their West Berlin peers. The high correlations between efficacy beliefs and course grades in East Berlin also suggest negative consequences of having to judge one's capabilities in accordance with teacher and group evaluations. From the beginning of their schooling, East Berlin children believe they are capable of achieving only as much as their teachers' opinions suggest.

This is especially true for children functioning at the lower level of intelligence. They are the ones who would really need the motivational and affective benefits of a positive sense of efficacy. The unusually high correlation of $r = .90$ between efficacy beliefs and academic performance in the less intelligent East Berlin children suggests a strong negative prognosis of low future performance, which considerably narrows their developmental plasticity (Baltes, 1987).

The unification of East and West Germany requires acculturation for the East Berlin children (Berry, 1990), because they are adopting the West German culture system. In their transition from school to work, East Berlin youngsters, especially those at lower levels of intellectual functioning, may be handicapped by a weaker sense of efficacy than their West Berlin competitors. Moreover, they may be less resilient in dealing with failures,

because failures readily validate their low self-appraisals of their capabilities.

Our results also suggest implications for the social interactions between East and West Berliners in the workplace. Misunderstandings might arise if East Berliners interpret the positive expression of personal efficacy by West Berliners as presumptuousness and arrogance (*Besserwessi*), whereas West Berliners might tend to interpret the realistic self-appraisals of East Berliners as inappropriate pessimism. This stereotype is voiced in the West German popular press, which complains about the chronic motivational deficits of former East German citizens.

From an ethnocentric West German point of view there is good reason to be optimistic about effective acculturation of East Germans to the West German society. Our data suggest that a school system issuing repeated criticism of optimistic self-appraisal can get students to give up their naive optimism regarding their personal capabilities. When such undermining school practices are discontinued, which is currently occurring by adoption of the West Berlin school system in the East Berlin schools, the children are more likely to maintain their positive beliefs in their potential.

Such a West German ethnocentric view might lead one to overlook the fact that the type of self-efficacy appraisals engaged in East Berlin children had some social advantages for managing life in former East Germany. If people evaluated themselves adequately, they were engaging in a socially desired and valued self-appraisal strategy. Indeed, children who evaluated themselves adequately were rewarded with positions of leadership in the class-collective (Waterkamp, 1988), whereas voicing an optimistic sense of personal efficacy brought social censure (Maron, 1992; Weck, 1981). The motivational and cognitive benefits of a strong sense of personal efficacy might thus have incurred social costs.

Comparison of efficacy beliefs in East Berlin and Moscow children

East Berlin had imported the socialistic philosophy of education from the Soviet Union. In accord with Hofstede's view (1991) that culture manifests itself in societal institutions, we assumed that East Berlin and Moscow school systems would show – albeit following the same educational philosophies – subtle differences reflecting the cultural value differences between Russia and East Germany (Stetsenko, Little, Oettingen, & Baltes, in press).

In the former Soviet Union, both Soviet educational scientists and teachers concurred with the politicians' complaints in the 1980s, that the educa-

tional and political rules were insufficiently obeyed and not effectively implemented in daily school life. They argued that educational goals and regulations were formally adopted and implemented just as a showcase (e.g., see Ligachev, 1989). At the same time, youngsters in the upper school grades frequently complained about their "lack of independence and excessive petty tutelage by teachers" (Kon, 1989, p. 60). Moreover, Russian youths commonly disregard school regulations and enjoy making fun of teachers (Elkonin & Dragunova, 1967; Kon, 1989). This picture of everyday school life fits in with the disrespect for authority and disobedience expressed in Russian fairy tales, novels, and proverbs (e.g., "The sky is high and the Tsar is far!"). In Hofstede's terms, this type of disrespect presents a picture of high power distance (see Polivanova, 1992) that is responded to in a resistant way. In other words, the climate of cultural institutions is characterized by rebellion against the authorities' high power pressures. The school context with its tradition of making fun of teachers is a case in point. In addition, the Russian political developments of the past decade indicate an increased readiness for societal change, which should be accompanied by a value change toward low uncertainty avoidance.

East Germans, on the other hand, are not known to have rebelled against the high power distance expressed in their cultural institutions. Rather, they responded by dependence, that is, they respected authorities and readily conformed to their power pressures. East Berlin's Prussian tradition of submissively dealing with authorities may have prevented resistant counterreactions. In addition, East Germany was the last country of the Eastern bloc to start experimenting with societal change. This indicates that avoiding uncertainty was valued highly in East Germany. Indeed, East Germans waited for the Russians to give allowance and then readily accepted West German influences and regulations.

Therefore, children in Moscow, being embedded in a cultural context of lower power differential (because of counterdependence) and lower uncertainty avoidance than children in East Berlin, should score comparatively higher on self-efficacy and lower on conformity with teacher evaluations. In 1990 we (Little, Oettingen, Stetsenko, & Baltes, 1994b; Oettingen, Little, Stetsenko, & Baltes, 1993; Stetsenko et al., in press) assessed the self-efficacy beliefs of more than 500 children grades two to six of two Moscow schools. The mean levels of self-efficacy beliefs were higher in the Moscow children than in the East Berlin children, with differences beginning in the third grade and extending to higher school years. Specifically, the Moscow children were more confident in being able to mobilize effort, being smart,

and having luck on their side. The correlations between efficacy beliefs and course grades were lower in Moscow (r 's in the .50s vs. in the .70s in East Berlin; Stetsenko et al., in press), indicating a lower conformity to the teachers' competence evaluations in the Moscow than in the East Berlin children. These findings further suggest that cultural characteristics – in this case power differential and uncertainty avoidance – influence children's self-appraisals of efficacy in school settings.

Comparison of efficacy beliefs in Los Angeles and West Berlin children

The effect of cultural variations in educational practices on appraisal of self-efficacy was also evident in a study comparing more than 600 children from two Los Angeles schools with our West Berlin sample (Little et al., 1994b). In the past decades, educational philosophy in the United States favored school environments that provide opportunities for children to develop and express their unique potentials (Ames, 1992; Stipek, 1988, 1991). Accordingly, a unidimensional instruction was moderated in favor of multidimensional teaching. Today, multidimensional teaching practices are widely used in American schools. Students have much choice as to what they want to learn (e.g., the subjects of art, math, physics, languages), how they want to go about it (e.g., materials used, grouping), and the pace at which they do so. Individualized education makes a clear-cut ranking of students difficult. Moreover, precise information on where one actually stands among one's peers does not seem to be a major concern of teachers, parents, and students.

The everyday school life is in accord with Hofstede's (1980) finding that the United States is more individualistic than West Germany, the reverse being true for the dimension of uncertainty avoidance. Indeed, the self-efficacy beliefs of Los Angeles children were higher than those of the West Berlin children. At the same time, the correlations between efficacy beliefs and course grades were lower in Los Angeles than in West Berlin (r 's in the .40s vs. in the .60s in West Berlin; Little et al., 1994b; Little, Oettingen, Stetsenko, & Baltes, 1993). This suggests that individualist, weak uncertainty-avoidant cultures might promote more optimistic beliefs of personal efficacy and less conformity with performance evaluations by teachers than in collectivist, strong uncertainty-avoidant cultures.

It seems possible that the observed differences between Los Angeles and West Berlin may also originate from cultural differences in power distance. After all, a multidimensional teaching style requires a different teacher-student relationship than does a unidimensional teaching style.

Indeed, for schools in the United States, Stipek (1988, 1991) postulates a change in teacher-student relations away from teacher-centered toward child-centered school practices. Assuming that these changes have been implemented to a higher degree in the Los Angeles sample than in the West Berlin sample, the observed differences in self-efficacy may also be the result of differences in power distance between teachers and students in Los Angeles (lower power distance) as compared to West Berlin (higher power distance). Although Hofstede views the United States, and in particular West Germany, as adhering to low power distance, it is likely that the West German educational system values power differentials more highly than the American system. Indeed, the high power differential characteristic of the West German university system survived the many reforms aimed at changing an autocratic professor-student relationship. Finally, there are recent complaints about an overemphasis of *laissez-faire* teaching practices in U.S. schools.

Summary. Of the four cultural samples, East Berlin children demonstrated the most pessimistic beliefs of personal efficacy and showed the highest conformity with teachers' performance evaluations. Descriptive accounts of the educational practices of the East Berlin school system reflect high collectivism, large power differential, strong uncertainty avoidance, and an emphasis on social comparison. The most optimistic self-efficacy beliefs and the least pressure for social construction of competence characterized the Los Angeles schoolchildren, who are embedded in a school system with high levels of individualism and weak ambiguity avoidance. The West Berlin and Moscow children fell in between in their level of perceived efficacy and conformity with teachers' evaluations.

Are the beneficial effects of high self-efficacy universal?

Strong efficacy beliefs lead to greater persistence in the face of difficulties, reduce fear of failure, improve problem-focused analytic thinking, and raise aspirations – at least, this is what has been shown in Western cultures (see Bandura, 1989, *in press*). But are the beneficial effects of a strong sense of personal efficacy universal? That is, do they generalize across cultures irrespective of the different values to which various cultures subscribe? There is reason to believe that they are indeed universal, because they are founded in basic psychological principles and mechanisms common to human agency in general.

On first sight, however, achieving equivalence across culture in the assessment of self-efficacy seems hardly feasible. The *public* expression of

high personal efficacy beliefs may incur social costs and these social costs may differ across cultures. Goffman's (1955, 1959) writings on self-presentation point out that allowing others to save face facilitates social interaction. Moderating one's expressions of efficacy in public reduces the risk that others will feel less efficacious in comparison (i.e., lose face). Cultures that stress interpersonal harmony (see Markus & Kitayama, 1991; Rosenberger, 1992) should discourage expressing high self-efficacy beliefs publicly. This may go so far that even the expression of satisfaction over personal accomplishments is suppressed. Stipek, Weiner, and Li (1989) report that the Chinese are less likely than Americans to claim their own successful efforts as a source of pride. Kitayama and Markus (1990) found in Japanese subjects that feeling pride (as well as feeling superior, puffed up) is associated with feelings of indebtedness, shame, and guilt.

But do we have to conclude from these findings that people in cultures stressing interrelatedness will chronically fail to report on their "true" sense of personal efficacy, because they succumb to the cultural norm to be self-effacing? We caution against this conclusion. As Hofstede's descriptions of cultures imply, people in collectivist cultures focus on promoting the interrelatedness between in-group but not out-group members. The described self-effacing expression of efficacy feelings should therefore solely apply to interactions between in-group members. Collectivist individuals should feel no qualms expressing a strong sense of efficacy to members of out-groups. As Espinoza and Garza (1985) observed, collectivist individuals in point of fact fiercely compete with out-group members, even more so than individualists. In a standard testing situation, therefore, collectivist individuals should truly report on their self-efficacy feelings as they are not dealing with their in-group. It is not surprising, then, that Matsui and his colleagues find in Japan the same self-efficacy effects on career aspirations (Matsui, Ikeda, & Ohnishi, 1989; Matsui & Onglatco, 1991) and coping with stress (Matsui & Onglatco, 1992) as observed in the United States.

The most frequent criticism of the assumption that self-efficacy effects are universal, however, is the following: Self-efficacy would by definition relate to feelings of a single individual's personal efficacy; therefore, the postulated beneficial effects of self-efficacy on a person's goal pursuit are to hold only in individualist cultures. But there is no reason to believe that individuals from collectivist cultures do not form personal goals. According to Hofstede, it is the content of the goals that is different between individualist and collectivist cultures. Whereas individualist persons (i.e., idiosyncratic; Triandis, 1989) prefer to set goals for themselves that relate to

self-actualization, collectivist individuals (i.e., allocentrics) prefer to set goals for themselves that relate to promoting the welfare of their in-group. For both types of goals, it should be the self-efficacious individuals who make good progress toward realizing their goals, whereas the individuals plagued by self-doubt should be less effective.

This does not imply that collectivist and individualist society members feel equally efficacious in individualistic as compared to in-group work settings. Actually, Earley (1993) observed that members of collectivist cultures felt more self-efficacious in an in-group work setting than members of individualist cultures, whereas the reverse was true for an individualistic work setting. More important, however, Earley found that the assessed level of self-efficacy was a highly valid predictor of performance for both types of work conditions (i.e., individualistic vs. collectivistic) for both types of people (i.e., individualists vs. collectivists). This latter finding further supports the assumption that self-efficacy effects on performance are universal.

Conclusion remarks

Cross-cultural research on self-efficacy beliefs clarify how efficacy beliefs originate under different social and institutional practices. It points to the power of societal institutions, which, in culturally determined ways, modify prevalence, form, and evaluation of different sources of self-efficacy information. The research reported in this chapter analyzed how societal educational institutions differentially affect self-efficacy appraisals of children in East Berlin, West Berlin, Moscow, and Los Angeles. Cross-cultural research also needs to be extended to the effects of the social practices in the family, the community, and the workplace on self-efficacy appraisals. The links between cultural differences and their expression in these various institutions have yet to be established empirically. Finally, available evidence indicates that efficacy beliefs have similar effects on human functioning across cultures.

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