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Constructing Disability and Social Inequality Early in the Life Course: the case of special education in Germany and the United States

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Abstract

Joining life course and educational stratification research with disability studies' complimentary emphasis on structure and disabling barriers enables a more complete analysis of the experiences and life chances of primary and secondary school students who are classified disabled. Because the processes that affect life course phases and transitions, as well as individual opportunities, identities, and attainments are cumulative, analysis of early differentiation is necessary to understand how (special) education legitimates and generates social inequality. Universal compulsory education led schools to develop a variety of sorting mechanisms. Especially during the resulting transitions within an educational system's learning opportunity structures, special educational needs are identified, labelled - and categorical boundaries drawn around dis/ability - altering individuals' trajectories. By stigmatizing, separating, and segregating students, special education institutions in Germany and the United States construct social inequality early in the life course.

Life course perspectives emphasize the interrelation of social structure and agency, the importance of age and generation, and the accumulation of dis/advantages over a person's life course. Disability studies, while also attending to individuals' lived experience of impairment, chronic illness, and disability, has primarily focused on the key role of social, institutional, and environmental barriers in constructing disability. Together, these two young, energetic fields provide methodological tools, concepts, and research goals that can profitably guide social scientific analysis.

The article begins with brief reviews of relevant life course and educational stratification literatures showing how institutional arrangements affect individuals' trajectories. We gain insights into the construction of disability and social inequality by examining how special education structures individuals' learning opportunities, affecting identity and self-efficacy, but also later life chances.

Despite the additional resources that flow from categorization as a student who 'has special educational needs' (SEN), being placed in special education often results in separation from the regular classroom in the United States ('intra-school separation') or segregation from the regular school in Germany ('inter-school segregation'). Because dis/advantages cumulate over the life course, the focus on early opportunities and constraints is crucial. Thus, in the third section, I refer to social-psychological findings on the negative impact on students' self-efficacy of being placed in low-status educational tracks and separated from their peers.

Education policies and school practices relating to students with SEN not only meld the developing identities of special education students, but also of those who are not disabled. Early in the life course, schools play a significant role in shaping each cohort's views of impairment and disability (and diversity more generally) by structuring interactions between students in hierarchies. As the proportion of all students receiving special education in both Germany and the United States continued to increase over the twentieth century, expanding special education organizations increasingly defined who would become disabled. Particular images of difference and models of provision are imposed through formal policymaking, processes of assessment and identification, and bureaucratic control. 'Special education' and medically based categories of impairment, although highly contested, are the bastions that exclude many disabled children from ordinary social and learning environments (Barton and Armstrong 2001: 702).

Below, connections between life course and educational stratification research, studies of classification and categorical boundaries, and social psychology are briefly drawn out with examples from cross-national research, illustrating how diverse social scientific literatures and disability studies can contribute to one another.

A life, of course, and chance

It is now generally acknowledged that gender, class, race, and cultural background have enormous effect on the life course and life chances (Gillis 2001: 8816).

Disability studies' bold advances - signified by international, multidisciplinary conferences, encyclopaedic publications (e.g. Albrecht et al. 2001), and even explicit connections with life course research (e.g. Priestley 2000, 2001) - have not yet fully succeeded in getting social science to acknowledge disability's enormous effects on the life course and life chances. Educational sociology too can profit

from a life course research focus on human development within social structure, and from disability studies' parallel emphasis on the organizational and environmental barriers that disable people in every stage of the life course and in all societies.

Life course research, in referring to a 'sequence of socially defined events and roles that the individual enacts over time', derives its advantage from 'its flexibility and capacity to encompass many different types of cultural, social, and individual variation (Giele and Elder 1998: 22). Other concepts such as age and generation, transitions, trajectories, pathways, and cohorts are also highly relevant for disability studies, as they enhance the study of the interactions between social structures and individual lives. Life course research focuses on the considerable consequences of institutional arrangements for individual life course trajectories varying across time and place (cf. Hogan 1989). It contributes to our understanding of disability by acknowledging longitudinal changes in our social relations, our everyday knowledge, and our academic concepts. As each cohort develops particular meanings of disability, generational aspects allow us to analyze changes, but also continuities, in disabling policies, institutions, and environments.

Those children with impairments early in life - or difficulties in meeting schools' normative learning and behavioral requirements - are selected out as they are 'discovered'. But what counts depends on national and regional educational policy and on local school classificatory practices. In Germany today, 5% of all students of compulsory school age are classified as having SEN, whereas nearly 12% of all students aged 6-21 in the US have an individualized education plan providing special education services; however, in both countries these rates vary dramatically by region/locality and disability or SEN category (Powell, in press). Population density, cohort size, and other demographic factors also influence which students are removed from the regular classroom and how (special) education resources are distributed. Students' transitions into and out of special education often have much to do with environmental and organizational conditions, independent of individual characteristics, although the latter are most often viewed as the causal factors.

A life course approach also emphasizes that learning difficulties and capabilities develop over time, as a student's past dis/advantages accumulate; therefore, educational systems in which schooling begins later, and those that sort students earlier, place greater emphasis on family resources and socialization, and may be less forgiving of developmental delays.

In the Program for International Student Assessment study of 15-year-olds' reading and math performance, no OECD country's educational system reproduced social status intergenerationally as consistently as Germany's (e.g.

Deutsches PISA-Konsortium 2001), due to its early selection and rigid stratification, which also led to development of one of the most differentiated special school systems in the world.

Timing is a major factor, as transitions between school types and grades often provide the moment in which education policy and school gatekeepers' decision-making jointly determine a student's future educational opportunities. He or she will be sorted into a location within (US) or between (Germany) stratified schools. In the former, tracking occurs throughout a student's career but within an integrated comprehensive school; in the latter, children are sorted into differentiated pathways and school types, especially during the transition between primary and secondary school.

Because there are limited preferred locations and mostly downward mobility, most children will not benefit from the best possible learning opportunities. Once in special education, a student's further learning is determined in large measure by the curriculum, interactions with classmates and teachers, and services provided in the school, track, or classroom. At micro-level, individual life course studies use (auto)biographies to emphasize students' personal agency, illuminating interpersonal connections and children's specific experiential worlds in school.

Institutional life course research, by contrast, focuses on regularities and patterns in these individual consequences by analyzing location-specific and time-specific structures, such as policies and institutional arrangements. Extraordinary shifts in how societies treat people classified disabled, often within just a few years or decades, highlight the importance of emphasising the dialectical exchange of social structures and individual lives (Riley 1989); of individuals' life courses embedded in and shaped by historical times and places (Elder 2001: 8820). As disability studies scholars aim to make sense of the complex relationships between disabled people's experiences and the opportunity structures and constraints of barrier-filled contexts, they can profitably use life course concepts to gauge those changes. To do so, however, requires attention to groups and their dynamic boundaries. For each historical period, social scientists must analyze how disability is defined, who defines it, in what contexts, and with what consequences (Barton 1998: 54-55).

Children and youth in special education often benefit greatly from substantial resources, myriad services, and individualized attention. But they may also face organizational or legal constraints on educational attainment. Life course research has focused on such rules and preferences in organizations and their legitimation of personhood and standardized, institutionalized life courses (Kohli 1985).

Contemporary welfare states categorize individuals at each stage of the life course, determining not only economic and social well-being, but also which differences matter and which are preferred or stigmatized. The bureaucratic state legalizes and standardizes using multiple mechanisms including

legal norms, entitlement criteria, professional licensing, and incentive distribution, all of which can have large unintended effects (Mayer 1991: 182). The number of years of compulsory schooling; psychological and medical eligibility criteria for special education services; professionalization of school psychology, rehabilitation, and related fields; and financial incentives to label children are all areas in which state standards and bureaucratic regulations influence individual students' careers in (special) education. From this perspective, schools emphasize and institutionalize the particular differences between children as they sort and classify. These differences need not, but often do, produce prejudice, negative stereotypes, and discrimination among student groups, as each cohort is socialized in more or less disabling schools and families.

Life course perspectives entreat researchers to look at lives not just in discrete segments, but as self-referential, contextual processes of development in which experience and knowledge accumulate differentially according to positions in stratified educational systems and societies. Contemporary studies of the life course attempt to unify historical time, institutional time, and individual time by examining interaction between individuals' meaning and decision making, institutional norms and rules, and structural constraints (Heinz and Kr_ger 2002: 33). Thus, both major types of sociological life course research described above contribute to our deeper understanding of the effects of (special) education and its consequences for individuals, cohorts, and society.

Educational systems: integrating to stratify?

Within Germany and the US since the mid 1800s, compulsory schooling laws expanded to encompass ever more diverse groups of children, including those of low socio-economic status, migrants, and those with impairments (on US, Richardson 1999). Increasing standardization and differentiation of school systems were the main responses to the challenge diverse student bodies represented, and a variety of sorting mechanisms resulted in age-graded schools defining the early life courses of children and youth in a rigid series of stages. Especially during these transitions within and between schools, 'special educational needs' (SEN) or student dis/abilities began to be identified, labeled, and reified altering a classified student's educational pathway, occupational trajectory, and life chances. Because the processes that affect life course phases and transitions, as well as individual identities and aspirations, are cumulative (cf. Mayer 1997), analysis of early opportunities and differentiation is necessary to understand how disability and social inequalities are constructed.

Like other tracks between or within schools, special education has gatekeepers who utilize standardized measures of academic performance and behavioral norms to select diverse students bodies into supposedly homogenous groups at status

passages (e.g. moving between grades or school types). As people spend ever-larger portions of their lives in education, sociology has focused on understanding how differences between and within schools produce individual achievement and identity.

Stratification research repeatedly demonstrates the critical roles that educational institutions play as they sort students at early ages into pathways through school that differ in their access to later educational and employment opportunities.

Mobility within social structure determines individuals' successes and failures, while 'modes of access to positions in social structure...determine how individual efforts and abilities become linked to social and economic rewards', affecting individual beliefs about the relationship between personal efforts and achievements (Sorensen 1986: 178).

Education not only determines societal patterns of economic and political allocation, but also legitimates such patterns. School systems distribute each cohort of children into a society's adult stratification system (see Kerckhoff 1995). Despite some acknowledgment of 'ability' as a key construct in the determination of structural location (Kerckhoff 1993: 15-16), most research fails to specifically address children and youth in special education. This is unfortunate, because special education students' life courses demonstrate clearly how life chances are influenced and determined from the very beginning by educational policies and the gate keeping professionals who implement bureaucratic rules in schools (see e.g. Tomlinson 1982; Skrtic 1995).

Applying school stratification arguments to special education structures, they (1) socialize into the lowest levels of educational hierarchies, (2) allocate into categories with lower attainment probabilities, and (3) legitimize inequalities, especially through medical model classification systems and professionalized, bureaucratic special education programs that usually separate or segregate classified students.

As 'disability' has been largely excluded from social stratification research (but see Alexander 1976; Jenkins 1991; Entwisle et al. 1997), so too special education is rarely included explicitly in the tracking literature, even though its analytical foci are the processes and outcomes of the hierarchical organizational structures of schooling and curriculum differentiation. While empirical analyses have too often ignored the environmental opportunities that shape and constrain student (and parental) choices about schooling (cf. Allmendinger 1989: 231), tracking research does show how processes of differentiation distribute children into learning opportunity structures.

Primary and secondary schools continue to implement

tension-laden curricular assignments (Loveless 1999), despite reductions following challenges to increase equality of educational opportunity (Lucas 1999). Curriculum differentiation has continuously been associated with achievement inequality (Oakes 1985; Pallas et al 1994). Increasingly, all students are expected to master a common curriculum to meet national and state standards (Farkas 1996: 79-94). At the same time, teachers differentiate curricula according to a variety of educational interests, abilities, and needs (Heubert and Hauser 1999). However, most research shows that tracking increases variation in student performance between groups without altering the average - higher tracks gain more than the lower due to cumulative dis/advantages from track placement (Kerckhoff 1995: 328).

Studies of tracking suggest that we do change children's academic intelligence all the time. The entire process of tracking is designed to do just that... By these practices schools demonstrate the pliability of cognitive skills as well as the powerful effect social factors have on the success of individuals. Policies alter intelligence (Fischer et al. 1996: 167).

Elementary schools sort students in three ways - being held back, being placed in special education, and being grouped for instruction by administrative decision. These in-school tracks are more difficult to analyze precisely because they are 'so far below the level of social consciousness that they are not even thought of as tracks' (Entwisle et al. 1997: 80). Entwisle, Alexander and Olson argue forcefully for a focus on children at very early ages, because 'rigid social stratification begins when children start their formal schooling, or even before, yet much of the social sorting at this point in life is overlooked' (1997: 4). Their longitudinal Beginning School Study found that boys, minority group members, and poor children are more likely to fail a grade or be placed in special education classes in elementary school. Commonalities exist between processes of educational allocation and selection for students of lower social class backgrounds and students classified disabled (cf. Carrier 1986). Decades of research findings show the often dramatic over representation of many racial and ethnic minority groups in special education in the US (e.g. Losen and Orfield 2002) and in Germany (e.g. Powell and Wagner 2002).

Separate classes, resource periods, and other 'special' times during the school day lead students to accept the unequal features of the larger society as legitimate and accept responsibility for their own structural location (Oakes 1985: 144-145). A National Research Council review came to the conclusion that students are indeed worse off in low tracks than they would be in higher tracks: 'The most common reasons for this disadvantage are the failure to provide students in low-track classes with high-quality curriculum and instruction and the failure to convey high expectations for such students'

academic performance' (Heubert and Hauser 1999: 102). Recent cross-national, longitudinal research shows that rich academic curricula can indeed promote high levels of student achievement, even in lower tracks (e.g. Gamoran 1997).

In sum, tracking does not promote the development of quality schooling, but instead restricts low-track students' academic achievement, produces negative expectations among their teachers, and hinders development of their positive self-concepts and self-efficacy (Ansalone 2001). Mobility out of special education is also limited, due in part to the self-fulfilling prophecy of low expectations begetting low achievement in low status tracks (e.g. Eder 1981). Thus,

it is hard to overrate the importance of helping youngsters avoid being held back or placed in Special Education because avoiding these placements makes a tremendous difference in their long-term life chances - more of them will continue in school, and not drop out of high school before high school graduation (Entwisle et al. 1997: 18).

What are the mechanisms that regulate students' transition into low-status schools or tracks? How is the resulting stigmatization and institutionalized discrimination legitimated? The next section briefly reviews classification systems' functions and asks why devalued categories and their corresponding tracks continue to be used, before turning to specific psychological and occupational implications of participating in such special education tracks.

Classification and the lowering of expectations and self-efficacy Educational classification systems, interacting with locational, cohort-specific, and generational notions of dis/ability and behavioral norms, provide school gatekeepers with the categories they use to make sorting decisions about individuals' educational pathways. Individuals construct what it means to be 'disabled' or 'have SEN' in a given school (using official categorical policy distinctions but modified in everyday interactions). Labeled students in each cohort construct their own meanings, making of these categories what they will (Hacking 1999), yet the resulting boundaries and separations affect not only growing identities but also life course trajectories. As the social mechanism that links macro-level ideologies of 'ab/normality', and beliefs about 'dis/ability', with educational policies and school practices, classification systems institutionalize the meanings, labels, and categories that establish lasting symbolic and social boundaries between groups, constructing but also legitimating inequalities in Germany and the US (see Powell 2003).

While categories of dis/ability have been continuously revised (most recently due to disability critiques of the medical model), the categories and processes of classification resist change. Similar to other Western bureaucratic administrations run by professional gatekeepers, special

education and its classification systems - based on the ideology of 'normalcy' derived from statistical science (Davis 1997) - developed at the nexus of the modern social sciences, industrializing nation-states, and social policies (Rueschemeyer and Skocpol 1996: 310). Defining mental, physical and intellectual 'normalcy' and assessing populations has become a preoccupation of nation states and international organizations alike (Marks 1999: 53).

In both American and German schools, the group of students classified as 'disabled' or as 'having SEN' has grown since the beginnings of special education in the early nineteenth century. While special educational categories, their definitions and demographics have shifted over time in both countries, these statistically-based systems and the institutions they both justified and stabilize resist repeated attempts to replace them with inclusive, non-categorical education for all children. Classification systems join everyday labels with specialized 'disability' categories as they provide the knowledge required in school decision-making and control of status passages (e.g. referral to special education assessment), stabilize professional distinctions (e.g. teacher training), and flexibly respond to advancing disciplinary knowledge, policy reforms, and social forces.

Definitions of 'disability' are continuously changing, culturally variable, and highly contested (cf. Altman 2001). Focusing on cross-cultural research in education and disability, Peters (1993) draws a 'meritocratic' model of selection, labeling, and separation following a two-step process: (1) the assumption that objective assessments of abilities are possible, and (2) the ascription of intellectual or physical characteristics to individuals, with 'disability' paramount, making all other qualities, interests, and intelligences inconsequential. That process requires categorical boundaries to be drawn, and official classification systems guide it throughout, but always interpreted in specific contexts.

Elaborated classification systems bear witness to the rise of professional dominance in Western industrial societies. Most often, classifications of people with impairments and disabled people rely on judgments based on clinical, but nevertheless subjective, reasoning of medical doctors, psychologists, and other trained professionals (Albrecht 1992). These systems, used to control status passages, borrow medicine's metaphors and methods, but also its enormous cultural legitimacy (Stone 1991). They operate with a model of clinical judgment and treatment that emphasizes individual assessment, diagnosis, and placement (Biklen 1988: 129). Furthermore, the disparities between expert gatekeepers' ideology and self-presentation and their actual practices are often significant, as they sort people into fixed status categories they themselves define in their professions' theoretical constructions (Stone 1991: 218). Boundaries between categories in systematic classifications are policy choices with clear ramifications, just as the

classifying of people among them represent a political process which can be empirically examined (Starr 1992). In practice, classification is simultaneously the main educational sorting mechanism that school gatekeepers use to identify children for assessment and the scientific rationale that legitimizes evaluations of students.

When students are categorized based on teachers' evaluation of individual competence or 'ability' in a plethora of diagnostics and assessments, it marks a turning point in those students' educational careers that henceforth impacts the learning opportunities that teachers, classmates, and others will provide them in American schools (e.g. Cicourel and Kitsuse 1963, Mehan et al. 1986, Mehan et al. 1996) and between German school types (Gomolla and Radtke 2002). Evidence suggests that existing classification systems serve the purpose of diagnosis at the expense of treatment (McDonnell, et al. 1997: 85). The effectiveness of any diagnostic categories have been seriously questioned because the intuitively appealing basic assumption behind them - that of increased treatment utility - has not been borne out by empirical research (Slate and Jones 2000). Categorical labels often are misleading, allow misdiagnosis, and facilitate negative stereotyping (Mertens and McLaughlin 1995: 61). Because of their ubiquity, their scientific bases, and their interpretation by prestigious professions such as medicine and psychology, these classifications defend the status quo as they appear rational, scientific, and neutral (cf. Bourdieu 1984: 466-477). These classificatory judgments are not only highly subjective, in conjunction with tracking but wield the power to alter individual trajectories through life, particularly at status passages in ever more important educational careers.

Among the myriad psychosocial implications of these learning opportunity structures are changed expectations (among teachers, parents, peers, but also students themselves) and stigmatization, lessened self-efficacy or competence, opportunity restrictions or discrimination, and civil and social rights limitations (cf. Hobbs 1975). The related concepts of stigma, prejudice, negative stereotype, and discrimination together contribute to oppressive, disabling environments, affecting individuals' identities and psychosocial resources (see Fine and Asch 1988; Link and Phelan 2001). The stigmatization of individuals by labeling has far-reaching consequences for their lives and for their societies.

In terms of school performance, a variety of constructs, such as competence and self-efficacy, describe skills and experiences imparted in (special) educational structures that affect educational (non)attainment. Bandura describes the importance of social interaction to the utilization of skills, and people's difficulties in benefiting from their skills or intelligences when their status is low:

When people are cast in subordinate roles or are assigned

inferior labels, implying limited competence, they perform activities at which they are skilled less well than when they do not bear the negative labels or the subordinate role designations. Offering unnecessary help can also detract from a sense of competence and thereby vitiate the execution of skills (1990: 315-347).

Labeled individuals may suffer a reduced sense of personal efficacy from then on. Students placed in lower tracks risk losses of self-efficacy and aspirations, even if more resources are made available to meet their SEN, which have traditionally justified segregated educational environments. While placement in 'lower-level' schooling can detract from self-esteem, motivation to learn, and expenditure of effort in school, differing views of track placement's influence on achievement orientations suggest that (1) socialization processes such as teacher-student and peer relationships mediate that influence, or (2) students adjust their aspirations according to their self-placements and their predecessors' fates (Mortimer 2000: 21-22). Continuing discrimination - despite disability anti-discrimination legislation enacted in the United States (Scotch 2001), Germany (Heiden 1996) and some forty other countries depresses aspirations of disabled children and youth as they grow up in societies in which disabled people's contributions to society are systematically undervalued. Having low self-efficacy is associated with having expectations of failure and not being able to control life situations. Furthermore, 'personal efficacy is positively related to health, morale, cognitive functioning, and economic well-being' (Lachman 1985: 188).

Stigmatized individuals may invest heavily in a variety of psychological and behavioral coping strategies to counteract lowered self-efficacy and self-esteem. Students' perceived self-efficacy, not their actual academic performance, is the key determinant of their perceived occupational self-efficacy and aspirations (Bandura et al 2001).

Research on 'multiple intelligences' (Gardner 1993) or 'successful intelligence' (Sternberg 1999) demonstrates the extraordinary variety of human abilities and the arbitrariness and limitations of currently used concepts and psychometric measures (see Sternberg and Kaufman 1998). But life course perspectives highlight additional effects beyond the individual student's own deflected trajectory due to psychological pressures resulting from oppressive school structures. Each cohort is socialized to think of dis/ability and SEN using particular (more or less) stigmatizing categories. The resulting beliefs and categorical boundaries drawn in everyday interactions produce disabling social barriers. Education reforms ensure that each cohort of students experiences an environment in which specific types and measures of intelligence and dis/ability are used or valued. By emphasizing commonalities, cooperation, and

individual strengths instead of weaknesses, more inclusive education may further reduce stigmatization and institutional discrimination throughout the life course.

Conclusion

In the US (less so in Germany), each succeeding generation of disabled students has been increasingly 'integrated' - first into public schools and more recently into regular classrooms. For recent cohorts of students in the US, 95% of children and youth classified as having SEN do attend their local regular schools, although most of them spend some of their school day in separate classes. In contrast, most of the Federal Republic of Germany's states (LSnder) maintain segregating special schools, with only around 10% of all children and youth classified disabled attending their local regular schools. Although with substantial variation by region and category, educational attainment rates of students classified as having SEN are also much higher in the US than Germany (Powell, in press), despite a high school dropout rate for youth with disabilities twice as high as for those without (Phelps and Hanley-Maxwell 1997: 218).

Results of the only representative longitudinal study of post-secondary outcomes for American youth with disabilities (the National Longitudinal Transition Study of Special Education Students) show that more time in regular education in high school for students with disabilities was associated with better results as a young adult, but additional research is needed to more fully understand why. 'Across a number of analyses of post school results, the message was the same: those who spent more time in regular education experienced better results after high school' (US Dept. of Education 1995: Ch. 3d). In Germany, not all special schools even offer the required entry certificate for further training or tertiary education, a glaring constraint on further learning opportunities for students classified as having SEN (Krappmann et al., forthcoming).

On these multiple levels of self-efficacy and identity, special education institutionalization, and educational policies, learning opportunity constraints and stigmatization early in school reduce efficacy and aspirations and educational attainment, affecting later occupational success: 'Experience within categorically differentiated settings gives participants systematically different and unequal preparation for performance in new organizations' (Tilly 1998: 10). Special education school-leavers in Germany and the US have significantly reduced further educational and employment opportunities. Their limited labor market opportunities result not only from reduced learning and self-efficacy in lower school tracks, but also from stigmatization and statistical discrimination by employers. Solga (2002: 161) has shown that employment opportunities of people with less educational attainment can be explained by increasing 'stigmatization by

negative selection' due to changes in group size, group composition, and employers' perceptions of graduates from low-status tracks over the course of educational expansion.

Despite universal compulsory education, special education's classification and tracking systems continue to systematically exclude many children and youth from learning opportunities, high expectations and rich curricula that would prepare them more adequately for their futures. Little imagination is necessary to picture the long-term consequences of (special) education institutions, their classification of students, and resulting stigmatization and institutional discrimination: The disabling societies in which we live are extensions of the school inequalities that we have experienced.

Separate special education structures not only construct disability, they fail to prepare not-yet disabled people for their own futures. Given the ubiquity of chronic illness, impairment and disability, especially as people live longer, we need to (1) recognize common difficulties produced by disabling environments and (2) legislate universal policies flexible and adaptable enough to meet constantly changing needs (Zola 1989). Like earlier shifts to educational inclusion and away from separation and segregation of girls and ethnic and racial minority children, today's inclusive educational models for disabled children promise significant, but gradual, change.

At the intersection of disability studies and life course research, as in the social sciences more generally, the comparisons of policies on the macro-level, organizations on the meso-level, and individual experiences on the micro-level - if brought into dialogue - deliver deeper insights than are possible on one level or in cross-sectional analysis. Conceptually, life course research offers a variety of complimentary strategies for the social sciences to address the issues raised here. Ideally, over time, comparatively, and on multiple levels, '...a research program of cross-national comparison of life course patterns should be conducted' (Mayer 1997: 223; O'Rand 2000).

First attempts to account for cross-national disparities in special education placements, attainments of school-leavers from special education, and implementation of inclusive education have been made (e.g. Meijer 1998; OECD 1999). However, thus far, neither existing longitudinal social science data sets nor the social science disciplines - including the subfields presented here - have adequately addressed disability in its complexity and richness (cf. Altman and Barnartt 2000).

For special education, such longitudinal, multilevel, and cross-cultural research is necessary to explain the considerable variance in classification, educational attainment, and life chances by disability or special needs category, region, and cohort that could only be suggested here. Given the significant change in special education brought about by the disability movement and by parents of

children with disabilities over the past several decades (e.g. Heyl 1998), social scientific research must also keep up with the pace of often rapid change in local schools and larger contexts, especially as inclusive education develops beyond pilot school projects.

On the other hand, the global movement toward school integration and inclusion of children with SEN needs to more fully utilize and respond to research results that uncover the complex factors and mechanisms that result in students' placement in lower educational tracks and, more challenging still, why the link between participation in special education and lessened chances over the life course remains so strong.

Internationally, there is some cause for optimism beyond the promise of increased multidisciplinary attention to these issues. Despite resistance to implementation of inclusive education reforms (cf. Loxley and Thomas 1997), nations such as Norway and Italy have eliminated segregating special schools altogether. Led by the disability movement, societies and international organizations alike are increasingly unwilling to condone educational separation and segregation and their negative life course consequences of stigmatization, discrimination, and increased social inequality.

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