

Social Inequality across the Life Course: Societal Unfolding and Individual Agency

JUTTA HECKHAUSEN

Abstract

Social inequality is rising around the globe with devastating consequences for individuals and societies. Modern societies allow social mobility but vary greatly in the extent and means by which it is hampered or facilitated at different points in the life course. Motivational and lifespan developmental psychology view individuals as agents of their development, and specify sequential models and strategies for adaptive developmental agency. Individual differences in planful goal selection, optimism, action-orientation, and goal disengagement capacities are critical for adaptive developmental agency, especially under conditions of major age-graded changes in opportunities, unexpected losses, or increasing uncertainty and destabilization of life courses.

The discussion about social inequality in the public media has become omnipresent. A topic, previously “suspected” as being the domain of Marxist and left-leaning ideology, has morphed into one of the greatest public concerns in modern societies. It is now common knowledge that social inequality has become rapidly more pronounced over the past few decades (see Figure 1, OECD, 2011) and that it has many detrimental consequences both for communities (e.g., higher crime rates) and their individual members (e.g., shorter life expectancy). We also know that countries across the globe vary quite a bit in the degree of social inequality, ranging from 23 for Sweden to 63 for South Africa, with Germany at 27 and the United States at 45 (CIA, 2013). Among modern western industrialized countries, the United States has by far the greatest social disparity between those who are at the top compared to those at the bottom of the society. However, even in European countries with their relatively less extreme ranges, the consequences of social inequality can be severe and can be found within a few miles of each other in a given city. For instance, in Glasgow (Scotland) a man living in

Emerging Trends in the Social and Behavioral Sciences.
Robert Scott and Marlis Buchmann (General Editors) with Stephen Kosslyn (Consulting Editor).
© 2016 John Wiley & Sons, Inc. ISBN 978-1-118-90077-2.

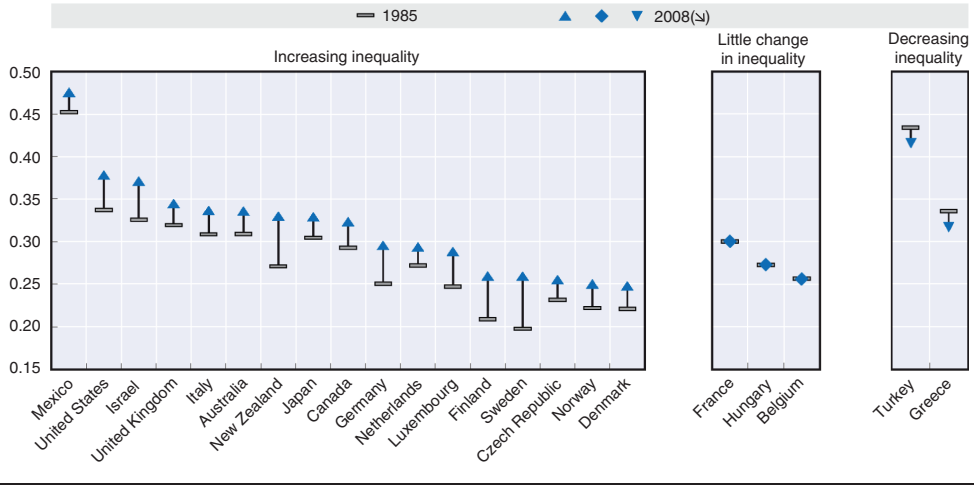


Figure 1 Changes in income inequality. *Source:* OECD Database on Household Income Distribution and Poverty (OECD, 2011).

Milngavie, the most affluent neighborhood, will on average live 28 years longer than a man living in Carlton, the poorest neighborhood of the city.

It is important to consider though that this modern-society inequality is different from the inequality of medieval society. In feudalistic societies, social inequality was an immutable and unchallenged fact of life. People did not think of the unequal distribution of resources as unjust (Elias, 1969). Moreover, nobody developed the notion of striving to move up in society to reach a higher social status.

By contrast, modern societies allow and encourage—at least in their ideology—the individual to move up the social ladder. An individual’s life course is not predetermined by the position of his or her parents, and thus the individual has greater opportunities, and with the opportunities the individual is ascribed a greater responsibility for where she/he ends up on the social ladder.

INDIVIDUALS AS AGENTS OF THEIR OWN SOCIAL MOBILITY

In modern societies, individuals do not formally inherit their parents’ position in society. Of course, the social status of parents still plays a large role in shaping the social destiny of their sons and daughters, but it is mainly through mechanism that influences their offsprings’ access to and performance in educational institutions and their opportunities to enter professional careers (e.g., via internships and entry-level jobs). Most individuals—maybe with the exception of the super-wealthy who inherit a fortune that will support them throughout their life—have to embark on

a path of making it in the adult world, an adult world, which is structured into a multirung system of social status.

Maintaining her parents' social position for (say) the daughter of a physician is not a given, but requires reacquiring that status by choosing appropriate short- and long-term goals for education and career and the active engagement of parents and in particular the daughter herself. For someone who comes from a family of low social status (e.g., no-college degree working class) moving up in society to attain a professional career position is even harder, because they have fewer family-based resources and no models within their family to facilitate moving into and completing higher education and enter a promising professional career. Moving up probably requires greater personal capacities in terms of intellectual competencies and/or motivational commitment and planfulness on the part of the individual than merely maintaining, or rather reacquiring, one's parents' social status.

MOTIVATIONAL THEORY OF LIFESPAN DEVELOPMENT

My colleagues and I developed the Motivational Theory of Lifespan Development (Heckhausen, Wrosch, & Schulz, 2010), which conceptualizes individual agency in lifespan development in terms of three basic characteristics: (i) the striving for control in the environment (i.e., primary control) and of one's own motivation and emotion (i.e., secondary control), (ii) the selection of goals for control striving that reflects the control opportunities available in the present developmental ecology, and (iii) the organization of behavior into cycles of goal engagement and disengagement (Figure 2) (Heckhausen, 2011; Heckhausen & Heckhausen, 2010; Heckhausen *et al.*, 2010). People can be either in a GO mode of engagement with a developmental goal (e.g., bear a child) or a STOP mode of disengaging from the goal. During the GO mode of goal engagement, all behavioral and motivational resources should be mobilized to pursue the goal. Then, as opportunities for successful goal engagement fade away (e.g., time runs out with biological clock) or costs for competing domains become prohibitive, the individual should decisively switch to disengagement, without wasting further resources with half-hearted attempts. For beloved long-term goals to be given up, the individual might need to use self-protective strategies to keep the emotional responses at bay. Such an efficient disengagement from a personal developmental goal can free up resources for engagement with new or adjusted goals that are still or newly attainable.

Taking control of one's own development and life course, especially in regard to social status, requires that the individual figures out the appropriate long- and short-term goals and steps leading to them. Appropriate goals

for goal attainment. Moreover, more adaptive use of control strategies is associated with better developmental outcomes, including psychological well-being and even physical health (Heckhausen, Wrosch, & Fleeson, 2001; Heckhausen *et al.*, 2010; Wrosch & Heckhausen, 1999; Wrosch, Schulz, Miller, Lupien, & Dunne, 2007). There are a few fairly general individual differences in motivational and volitional self-regulation, which may play a critical part in how effective someone is in selecting and pursuing his/her life goals (see also discussion in Heckhausen & Wrosch, 2016). The four discussed here are by no means a complete set of relevant dispositions for control striving, but they are likely among the most important.

Planfulness/Reflectiveness in Goal Selection Congruence with available opportunities is critical, so individuals who take into account the social and developmental ecology before choosing a particular goal to pursue, should achieve better outcomes. Moreover, given the interdependence of life domains, one needs to consider the concurrent and long-term consequences of engaging with a goal for other domains of life (e.g., consequences of long-term investing in a career goal for family-related goals). We have used the Optimization in Primary and Secondary (OPS) Control Scales to assess optimized goal choice as well as specific primary and secondary control strategies (Heckhausen *et al.*, 2010).

Dispositional Optimism Individuals differ in the extent to which they expect positive versus negative outcomes to occur in their everyday lives (Scheier & Carver, 1985) and that has consequences for improved persistence, more vigorous problem-focused coping, subjective well-being, and physical health (Rasmussen, Wrosch, Scheier, & Carver, 2006). Even though dispositional optimism has not been studied so far in association with development-focused control striving, it is likely to enhance the tendency for engaging with and persisting for ambitious goals. Dispositional optimism should be particularly helpful during volitional phases of action and when the individual encounters obstacles and setbacks. On the other hand, dispositional optimism could be problematic in contexts of delicate goal selection, particularly when it is essential to avoid excessive aspirations and when the goal selection has to be closely calibrated to the opportunities and risks in a developmental ecology (Heckhausen & Tomasik, 2002).

Action versus State Regulation.

Individuals differ in the degree and decisiveness with which they are engaged with a goal or disengaged from a goal. Julius Kuhl and his colleagues have studied the action versus state orientation of individuals as

predictors of the following types of behavior: effective focus of behavior, thoughts, and affect on goal pursuits is characteristic of action-oriented individuals, whereas state-oriented individuals tend to get stuck in currently experienced emotions, cognitions, and behaviors as well as past failures (Kuhl, 1981). These action-regulatory traits are conceptually closely related to dispositional foundations of primary and secondary control strategies involved in goal engagement and disengagement, control strategies we assess using the OPS Scales. Action-oriented individuals can be expected to better orchestrate primary and secondary control strategies for goal engagement and disengagement, whereas state-oriented individuals might get stuck in a previous action phase or overly focus on secondary control strategies while losing sight of their function for primary control.

Goal Disengagement Capacities.

This individual difference dimension refers to individuals' general readiness to withdraw commitment and effort from the pursuit of unattainable goals (see review in Wrosch, Scheier, & Miller, 2013). Goal disengagement capacities can affect developmental goal striving in various adaptive ways. First, disengaging from futile goals is adaptive as such, because it helps avoid frustration. Importantly, disengaging from unattainable goals frees up resources for engaging with attainable goals and thus helps to attain them. Initial studies on the development of the capacity to disengage from goals indicate that a sensitive developmental period may be during adolescence, when the experience of depressive symptoms promotes the development of disengagement capacities, thus rendering the older adolescent more resilient to depression (Wrosch & Miller, 2009).

WHEN IS REGULATING ONE'S OWN DEVELOPMENT THE MOST CHALLENGING?

Much of everyday behavior, even when directed at long-term goals, such as attaining an education, building a family, or moving up in one's career, are scaffolded by institutions (e.g., school, employer) or one's social context (e.g., expectations and agreements with peers or partner) and thus well buffered against distractions or motivational conflict. Under normal conditions and between life-course transitions when opportunities change, individuals do not have to invest a lot of motivational considerations in deciding which goals to pursue, and they also do not typically need to invest much volitional effort to stay committed to the goal they are currently pursuing (e.g., attain a BA). However, there are certain challenging conditions that call for the individual agent to step up to make important decisions for a new goal or whether to disengage from an old goal, enhance volitional commitment or

use new more intense strategies of goal pursuit. I briefly discuss three such challenging conditions, a list not meant to be exhaustive.

Major Age-Graded Changes in Opportunities for Goal Pursuit The human life course is structured by a number of major life transitions, which occur at certain ages. During these major life transitions, opportunities for old goals disappear and opportunities for new goals open up. Given that human behavior is not much regulated by instincts, these discrete changes in opportunities require an adaptation of the individual in terms of his/her goal orientations. A facilitating factor may be that to the extent that these changes are age-related common changes, individuals expect them and can prepare for them. Expected age-graded changes in opportunities call for old, now obsolete, goals to be deactivated and new, now feasible, goals to be selected in accordance with opportunities and potential consequences. This means the individual as an active agent in her/his development is called for and challenged.

One of the most consequential of these transitions is the transition from adolescence to adulthood, which is endowed by a plethora of new opportunities and challenges to complete secondary education, pursue higher education or vocational training, enter a career, become financially independent from one's parents, and find a long-term romantic partner (Buchmann & Kriesi, 2011). During the transition to adulthood, major decision points are passed and thus the course is set on an individual's prospects for upward or downward social mobility. Motivational and regulatory capacities needed to master these challenges involve analytic abilities and planfulness to assess opportunities and long-term consequences of educational and career decisions, as well as robust (i.e., resilient and persistent) goal engagement with chosen goals (see review in Heckhausen & Shane, 2015).

Some major life transitions involve substantial declines in opportunities for goal engagement. If opportunities sink below a certain level, the individual needs to reorient motivationally by disengaging from obsolete goals and engaging with new still obtainable goals. One example is the "biological clock," that is the diminishing fertility in the fourth decade of women's life (Heckhausen *et al.*, 2001). The motivational reorientation required at such transition points of diminished opportunities is captured in the developmental deadline model (Figure 2) and reflects high challenges for motivational self-regulation. Our empirical studies of control striving around developmental deadlines of child-bearing and of partnerships indicate that those individuals who better master an opportunity-congruent switching from urgent goal engagement to goal disengagement are more

likely to attain better subjective well-being and mental health (Heckhausen *et al.*, 2001, 2010; Wrosch & Heckhausen, 1999).

Uncertain or Obfuscated Opportunities for Goal Pursuit It is not always clear, whether pursuing a certain goal will lead to success or not. Sometimes, opportunities for goal progress are obfuscated by uncertainty about the boundary conditions or about the future perspective of these opportunities. This is particularly true for the attainability and the long-term sustainability of career goals, and even more pronounced under conditions of economic globalization and the uncertainties that come with it. Globalization has caused decreasing transparency of opportunities and predictability of long-term consequences of educational or career decisions (Buchholz *et al.*, 2009). The most detrimental consequences of uncertainty associated with globalization are suffered first and foremost by youth just entering the labor market (Blossfeld, Klijzing *et al.*, 2005), but also by women returning to and older adults leaving the labor market. Uncertainty is also the result of radical and sudden societal change, such as in the case of German reunification. Here, the group most affected were middle-aged adults, who at their advanced midlife age could neither reinvest in a new career path nor get ready to retire and thus languished without engagement or disengagement (Diewald, Huinink, & Heckhausen, 1996).

Lower socioeconomic status may add to the obfuscation of opportunities, especially as they relate to advanced education. Youth who are the first in their family to attend college, for example, often do not know about opportunities for graduate education and which career prospects are associated with it. Thus, even under conditions of equal opportunities, different social groups may have different access to critical information to make upward social mobility work for them.

Major Unexpected Losses of Control Some of the most taxing challenges for developmental regulation are situations of sudden and unexpected loss of control. Examples are natural disasters, but also health events and processes of severe and progressive illness and disability. Under such difficult circumstances, it is most essential to preserve still available areas of control and give up those, which are rapidly getting out of reach. On the basis of the Motivational Theory of Control, we developed a Lines-of-Defense (LoD) model for managing this latter type of challenge (Heckhausen, Wrosch, & Schulz, 2013). The LoD model specifies a set of lines of defense, ranging in severity of constraints from reestablishing uncompromised health, over getting other people to help, using technical aids (e.g., hearing aid, wheel chair) to accepting disability, and giving up certain activities of daily living.

Another type of circumstance of severe loss of control are processes of rapid and radical social change (Silbereisen & Chen, 2010). Radical social change typically involves a relative dissolution of institutional controls, and thus has the potential for creating opportunities for individual agents to take charge of their own life. However, deregulation by itself, if not accompanied by economic opportunity, is not conducive to individuals taking initiative to shape their own future (Silbereisen & Chen, 2010). Under circumstances of severe dearth of opportunity in parts of the world with economies crippled by political or religious unrest or forbidding climates, the most agentic thing to do is to pick up and leave. It can be expected that individuals with the strongest disposition for primary control striving coupled with the planfulness of having the long view of the benefits of leaving a low-control region are the ones who self-select for self-uprooting and migration. Unfortunately, the very disposition, which makes them migrate, will make it especially aversive for them to fit in at the lower rungs of the social ladder of the societies they are joining as powerless and resource-poor newcomers. Those who decide to stay in low-control countries fare best if they disengage from those goals that have become futile, even if they are as essential goals as getting a job (Tomasik, Silbereisen, & Heckhausen, 2010).

DIFFERENT SOCIETIES ENTAIL DIFFERENT OPPORTUNITY STRUCTURES FOR SOCIAL MOBILITY

Western societies vary in the degree to which they emphasize the individual's responsibility for moving up in society, with the United States promoting the most extreme notion of the self-made (wo)man in the ideology of the "American Dream." In some way, it seems like a paradox that the nation with the greatest inequality should sport such lofty ideals of individual agency in social mobility, but in another way it is not so surprising because it may well serve as an ideological compensation for the greater social inequality and underdeveloped social security and welfare system.

Indeed, social inequality and social mobility are strongly negatively related, as shown in Figure 3 (the Great Gatsby curve). The greater the inequality, the lesser are the opportunities for social mobility. It is as if in societies with particularly pronounced social inequality the rungs of the ladder are just too far apart to climb upward (or more than one rung upward), especially for those at the bottom. For instance, in the United States, individuals coming from the lowest quintile of income have about a 34% chance to stay in the bottom quintile and a 22% chance to move up one quintile (Mazumder, 2014). Interestingly, there is "stickiness" at the top too. Being born into the top quintile of income gives you a 38% chance to stay at the top and a 22% chance to move

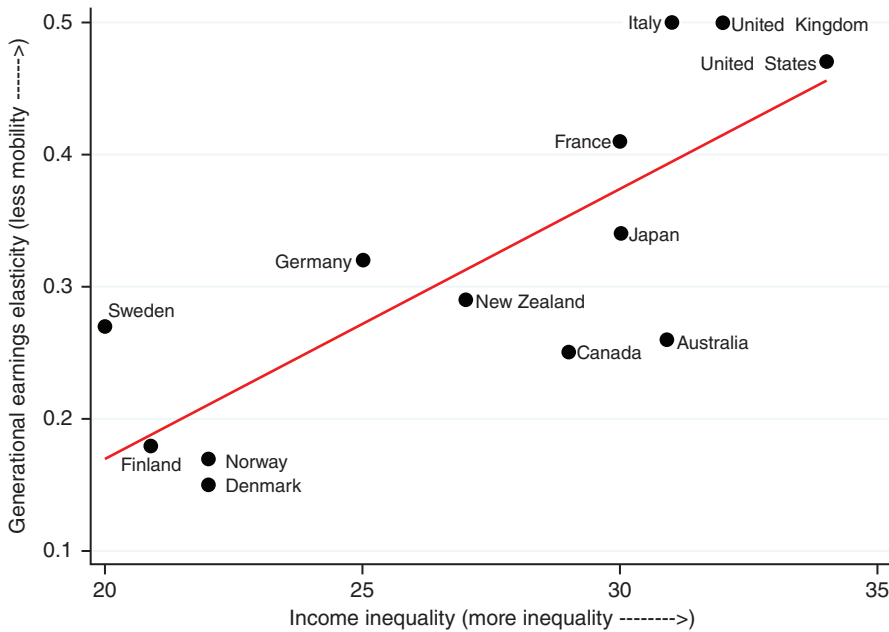


Figure 3 The Great Gatsby Curve: more inequality is associated with less mobility across the generations. *Source:* Adapted from Corak (2013), Figure 1.

down only one quintile. What about the possibility of jumping from the bottom to the top quintile? This “rags to riches” life-course trajectory is enjoyed by only 7%. The inverse “riches to rags” scenario is suffered by only 11% of the top income group (Mazumder, 2014).

When thinking about social mobility in different societies today, there are a set of characteristics of the society’s social structure and its institutions, which shape the action field of the individual in critical ways. These are discussed in the following paragraphs.

ACCESSIBILITY AND EQUALITY OF THE EDUCATIONAL SYSTEM

Even among Western industrialized countries, access to high-quality primary, secondary, and tertiary education varies widely. Just the examples of Germany and the United States make this clear. In Germany, the secondary school system is institutionally segregated into different tiers leading to college versus vocational training or simply paid work. This system is unparalleled in transferring social status from generation to generation. Working class children have to attain significantly better reading scores than average to be recommended for transfer into the upper-tier school, whereas upper middle-class and upper-class children can get such a recommendation with significantly lower than average reading scores (Arnold, Bos, Richert, & Stubbe, 2007).

One would think that a unified system such as the common high school in the United States would provide more equal chances to access a high-quality educational institution than the three-tiered German school system. However, social inequality of educational access to US schools is conveyed sociostructurally by differentially endowed schools because the school's equipment and teacher pay is a function of the tax income of the community, and thus directly related to the wealth or poverty of the residents in their neighborhoods. In the United States, the huge differences in quality and educational offerings (e.g., number of Advanced Placement classes offered) at the low end impair students' chances to be accepted into the top-ranked colleges.

PERMEABILITY OF EDUCATIONAL AND CAREER TRACKS

In the mid 1990s, Hamilton provided an analysis comparing the United States and Germany in their links between school and employment, and pointed out the trade-off between transparency of career outcomes and *permeability* of career tracks (Hamilton, 1994). He argued that the German vocational training system provided, high permeability with low transparency but little permeability of career tracks, whereas the inverse was true for the transition from school to work in the United States. The essentials of this analyses are likely still true even though professional and higher-level vocational career requirements in the United States today include more educational qualifications, whereas in Germany more people end up never really using their college degree or vocational training to work in the specific career their degree was aimed at (Heinz, 2002; Mayer, 2001).

Regarding the permeability of *educational* tracks too, Germany has more of a closed system, especially now with practically all popular majors being subject to severe Numerus Clausus entry constraints, which make it impossible to switch into these majors. In contrast, given the wide range of institutions in the tertiary education system of the United States, anyone with a high school degree can, at least in principle, gain access to some kind of college education and earn a BA and do this in a major of her own choosing.

CALIBRATION VERSUS AMBITIOUSNESS OF EDUCATIONAL AND CAREER ASPIRATIONS

Given the comparatively low permeability of both educational and career tracks, German youth have to calibrate even their long-term aspirations carefully to their currently attained school performance because what they can get access to in the short run will mostly determine what they can attain in the long run. In a longitudinal study of middle-tier school graduates who were applying for apprenticeship positions, we found that the 16-year-old youths were calibrating their goals for vocational prestige of apprenticeships

they planned to apply for closely to their own school performance (Heckhausen & Tomasik, 2002), fine-tuning their aspirations downward when they were unsuccessful in obtaining offers for an apprenticeship, and upward after success.

In the United States, with more options to move into tertiary education later and via detours, youth with highly ambitious long-term aspirations have an advantage. In fact, we found that those high-school graduates in our longitudinal study, who had extremely high ambitions for their long-term educational attainment were the most likely to attain a BA degree or be enrolled in a 4-year college 4 years after our assessment in the senior year of high school (Heckhausen & Chang, 2009). Entertaining high ambitions for one's ultimate educational achievement (e.g., get a graduate degree), apparently can carry even a floundering youth from low school performance to ultimate college success. Moreover, we found in our Los Angeles-based longitudinal study of high-school graduates that even for short-term goals, picking more ambitious ones (e.g., get into a 4-year college next year) is better for educational attainment in the long run than adjusting them to what can realistically be expected for the coming year (Villarreal, Heckhausen, Lessard, Greemberger, & Chen, 2015).

SCOPE OF SOCIAL INEQUALITY AND SOCIAL EXCLUSION

The scope of social inequality varies a lot across countries (Figure 1) and has important implications for potential social mobility (Figure 3). Those at the bottom in societies with large social status differences in income and resources can have little hope of ever making it far out of their disadvantaged situation. Moreover, certain groups are becoming entirely marginalized and cut off from opportunities, such as those not in employment, education, or training (NEET, Bynner & Parsons, 2002) in the United Kingdom or the long-term unemployed receivers of Hartz-IV welfare benefits in Germany. Such circumstances should have substantial consequences for an individual's expectations to overcome the odds and move up the social ladder.

IDEOLOGIES OF SOCIAL MOBILITY

Finally, societies differ in terms of whether and what kind of social mobility is considered desirable and attainable. Historical and religious causes gave rise to the most pronounced individualistic and optimistic idea of boundless social ascent available to everyone who tries hard and persistent enough that is associated with the *rags-to-riches* notion of the "American Dream." The meritocratic idea that everyone with capabilities and the willingness to try can make it to the top conveys hope even when that seems unrealistic. The "American Dream" provides the prospect of upward mobility to everyone

and thus helps keep in check revolutionary ideas of collective income redistribution.

In contrast to the ideology of the “American Dream,” European social and political history of class struggle has set up a fundamentally different approach of the individual to social inequality. By and large, individuals in Europe do not see themselves on a lonely individual struggle up the social ladder but instead view themselves at a certain place in a socially stratified society (Geissler & Meyer, 2006). Of course, everyone tries to improve his or her lot in terms of standard of living and quality of work life but not in the same sense of moving away from and climbing out of one’s social origin as in the United States. In Europe, social inequality is seen as an undesirable but inescapable societal reality. To compensate for unequal chances and resources, the long-standing class struggle led by powerful unions and political parties has won important battles and created impressive welfare systems in the major European countries.

THE POWER OF AGENCY: IDEOLOGY, INDIVIDUAL STRIVING, AND COLLECTIVE MISSION

The example of the United States of America shows that a society’s ideology about social mobility may be a far cry from what it currently actually provides in terms of opportunities for upward mobility. It is fascinating to examine how the individual agent navigates these disparities in ideology, opportunity, own skills, capacities, and resources. In our own research, we found that under conditions of an elaborate tertiary education system, which facilitates transfer from community college to 4-year college as present in California, individuals with extremely optimistic long-term aspirations fare best in their long-term educational outcomes (Heckhausen & Chang, 2009). Moreover, those high-school graduates with strong beliefs in the influence of factors they have some control over, such as their own effort and using social contacts, were more likely to be robustly engaged with their educational goals (Shane, Heckhausen, Lessard, Greenberger, & Chen, 2012). At the next transition, the one from college to work, California students generally hold quite ambitious aspirations for climbing the social ladder and besting their parent’s social status. Again, beliefs about the major causes of social outcomes play a critical role. We identified two pathways (Shane & Heckhausen, 2013): One group of students believe that success in society is due to own ability and effort investment, and they report having more ambitious career goals and being more engaged with these career goals. The other group of students believes that success is a function of uncontrollable luck, and this group is more disengaged from their career goals. It will be important to follow these youth further and see whether at some point, those with

high control beliefs, ambitions, and engagement become discouraged if they fail to achieve success, and end up changing their worldviews about success in life along with giving up their high-flying goals..

Many research groups and longitudinal studies are addressing the transition to adulthood in different countries. It is important to join forces to compare societal conditions in terms of social structure, institutions, and beliefs about social mobility, and longitudinally trace individuals' courses of goal setting, striving, adaptation of means, goal adjustment, and adjustment of societal beliefs as they navigate the rapids of opportunity and hope, and exclusion and disappointment. In this research effort, it will be especially important to identify groups that are marginalized and de facto excluded from participation in education and/or work (e.g., young men in Southern European and North African countries), and thus have no chance to improve their position in society.

REFERENCES

- Arnold, K.-H., Bos, W., Richert, P., & Stubbe, T. C. (2007). Schullaufbahnpräferenzen am Ende der vierten Klassenstufe. In W. Bos, S. Hornberg, K.-H. Arnold, G. Faust, L. Fried, E.-M. Lankes . . . R. Valtin (Eds.), *IGLU 2006: Lesekompetenzen von Grundschulkindern in Deutschland im internationalen Vergleich* pp. 271–297. Münster, Germany: Waxmann.
- Blossfeld, H.-P., Klijzing, E., Mills, M., & Kurz, K. (Eds.) (2005). *Globalization, Uncertainty and Youth in Society*. London, U. K.: Routledge.
- Buchholz, S., Hofäcker, D., Mills, M., Blossfeld, H. P., Kurz, K., & Hofmeister, H. (2009). Life courses in the globalization process: The development of social inequalities in modern societies. *European Sociological Review*, 25, 53–71.
- Buchmann, M. C., & Kriesi, I. (2011). Transition to adulthood in Europe. *Annual Review of Sociology*, 37, 481–503.
- Bynner, J., & Parsons, S. (2002). Social exclusion and the transition from school to work: The case of young people not in education, employment, or training (NEET). *Journal of Vocational Behavior*, 60, 289–309.
- Central Intelligence Agency (2013). *The world factbook. Country comparison: Distribution of family income—GINI index* (<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2172rank.html>).
- Corak, M. (2013). Income inequality, equality of opportunity, and intergenerational mobility. *The Journal of Economic Perspectives*, 27, 79–103.
- Diewald, M., Huinink, J., & Heckhausen, J. (1996). Lebensverläufe und Persönlichkeitsentwicklung im gesellschaftlichen Umbruch: Kohortenschicksale und Kontrollverhalten in Ostdeutschland nach der Wende [Life histories and personality development during radical social change: Group destinies and control behavior in East Germany after the Change]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 48, 219–248.

- Elias, N. (1969). *Über den Prozess der Zivilisation: Soziogenetische und psychogenetische Untersuchungen*. Frankfurt, Germany: Suhrkamp.
- Geissler, R., & Meyer, T. (2006). *Die Sozialstruktur Deutschlands*. Wiesbaden, Germany: VS Verlag für Sozialwissenschaften.
- Hamilton, S. F. (1994). Employment prospects as motivation for school achievement: Links and gaps between school and work in seven countries. In R. K. Silbereisen & E. Todt (Eds.), *Adolescence in context: The interplay of family, school, peers, and work in adjustment* (pp. 267–303). Cambridge, England: Cambridge University Press.
- Heckhausen, J. (1999). *Developmental Regulation in Adulthood: Age-Normative and Sociostructural Constraints as Adaptive Challenges*. Cambridge, U.K.: Cambridge University Press.
- Heckhausen, J. (2011). Agency and control striving across the lifespan. In K. Finger- man, C. Berg, T. Antonucci & J. Smitch (Eds.), *Handbook of lifespan psychology* (pp. 183–212). New York, NY: Springer Publishing Company.
- Heckhausen, J., & Chang, E. (2009). Can ambition help overcome social inequality in the transition to adulthood? Individual agency and societal opportunities in Germany and the United States. *Research in Human Development*, 6, 1–17.
- Heckhausen, J., & Heckhausen, H. (2010). *Motivation and action* (Vol. 2nd ed.). New York, NY: Cambridge University Press.
- Heckhausen, J., & Shane, J. (2015). Social mobility in the transition to adulthood: Societal opportunities and constraints for individual agency. In L. A. Jensen (Ed.), *The Oxford handbook of human development and culture* (pp. 535–553). New York, NY: Oxford University Press.
- Heckhausen, J., & Tomasik, M. J. (2002). Get an apprenticeship before school is out: How German adolescents adjust vocational aspirations when getting close to a developmental deadline. *Journal of Vocational Behavior*, 60, 199–219.
- Heckhausen, J., & Wrosch, C. (2016). Challenges to developmental regulation across the life course: What are they and which individual differences matter? *International Journal of Behavioral Development*, 40, 145–150.
- Heckhausen, J., Wrosch, C., & Fleeson, W. (2001). Developmental regulation before and after a developmental deadline: The sample case of "biological clock" for child-bearing. *Psychology and Aging*, 16, 400–413.
- Heckhausen, J., Wrosch, C., & Schulz, R. (2010). A motivational theory of life-span development. *Psychological Review*, 117, 32–60. doi:10.1037/a0017668.
- Heckhausen, J., Wrosch, C., & Schulz, R. (2013). A lines-of-defense model for managing health threats: A review. *Gerontology*, 59, 438–447.
- Heinz, W. R. (2002). Transition discontinuities and the biographical shaping of early work careers. *Journal of Vocational Behavior*, 60, 220–240.
- Kuhl, J. (1981). Motivational and functional helplessness: The moderating effect of state versus action orientation. *Journal of Personality and Social Psychology*, 40, 155–170.
- Mayer, K.-U. (2001). The paradox of global social change and national path dependencies: Life course patterns in advanced societies. In A. Woodward & M. Kohli (Eds.), *Inclusions and exclusions in European societies* (pp. 90–110). London, England: Routledge.

- Mazumder, B. (2014). Upward intergenerational economic mobility in the United States *Report of the Economic Mobility Project, an initiative of The Pew Charitable Trusts*. Chicago.
- OECD. (2011). Divided we stand, why inequality keeps rising. An overview of growing income inequalities in OECD countries: Main findings.
- Rasmussen, H. N., Wrosch, C., Scheier, M. F., & Carver, C. S. (2006). Self-regulation processes and health: The importance of optimism and goal adjustment. *Journal of Personality, 74*, 1721–1747.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: Assessment and implications of generalized outcome expectancies. *Health Psychology, 4*, 219–247.
- Shane, J., & Heckhausen, J. (2013). University students' causal conceptions about social mobility: Diverging pathways for believers in personal merit and luck. *Journal of Vocational Behavior, 82*, 10–19.
- Shane, J., Heckhausen, J., Lessard, J., Greenberger, E., & Chen, C. (2012). Career-related goal pursuit among post-high school youth: Relations between personal control beliefs and control strivings. *Motivation and Emotion, 36*, 159–169.
- Silbereisen, R. K., & Chen, X. (Eds.) (2010). *Social change and human development*. London, England: Sage.
- Tomasik, M., Silbereisen, R. K., & Heckhausen, J. (2010). Is it adaptive to disengage from demands of social change? Adjustment to developmental barriers in opportunity-deprived regions. *Motivation and Emotion, 34*, 384–398.
- Villarreal, B. J., Heckhausen, J., Lessard, J., Greenberger, E., & Chen, C. (2015). High-school seniors' short-term educational expectations: Do the costs of failing one's expectations outweigh the benefits of ambitious expectations? *Journal of Adolescence, 45*, 327–340.
- Wrosch, C., & Heckhausen, J. (1999). Control processes before and after passing a developmental deadline: Activation and deactivation of intimate relationship goals. *Journal of Personality and Social Psychology, 77*, 415–427.
- Wrosch, C., & Miller, G. E. (2009). Depressive symptoms can be useful: Self-regulatory and emotional benefits of dysphoric mood in adolescence. *Journal of Personality and Social Psychology, 96*, 1181–1190.
- Wrosch, C., Scheier, M. F., & Miller, G. E. (2013). Goal adjustment capacities, subjective well-being, and physical health. *Social and Personality Psychology Compass, 7*, 847–860.
- Wrosch, C., Schulz, R., Miller, G. E., Lupien, S., & Dunne, E. (2007). Physical health problems: Depressive mood and cortisol secretion in old age: Buffer effects of health engagement control strategies. *Health Psychology, 26*, 341–349.

JUTTA HECKHAUSEN SHORT BIOGRAPHY

Jutta Heckhausen grew up in Germany and did her graduate work and PhD at the University of Strathclyde in Glasgow, Scotland (advisor: Dr. H. Rudolph Schaffer), where she studied the way in which infants' development is promoted by interaction and joint activities with their mothers. In 1984, Jutta Heckhausen joined the Center for Life-Span Psychology

at the Max-Planck-Institute for Human Development in Berlin (director: Dr. Paul B. Baltes), where over the years she became a senior scientist with her own research group. In the 1980s and 1990s, she expanded her research area to include development in adulthood and old age, formulated the life-span theory of control with her collaborator Dr. Richard Schulz (University of Pittsburgh), and launched a research program to test its propositions and applicability to developmental regulation in adulthood. In 2000, she joined the Department of Psychology and Social Behavior at UC Irvine. In 1995/1996, Dr. Heckhausen was a fellow at the Center for Social and Behavioral Science at Stanford. In 1999, she won the Max Planck Award for International Collaboration and, in 2014, the Baltes Distinguished Research Achievement Award. Her numerous books and journal articles are widely cited (14,636 citations, h-index 44).

RELATED ESSAYS

Learning Across the Life Course (*Sociology*), Jutta Allmendinger and Marcel Helbig

Social Epigenetics: Incorporating Epigenetic Effects as Social Cause and Consequence (*Sociology*), Douglas L. Anderton and Kathleen F. Arcaro

The Impact of Bilingualism on Cognition (*Psychology*), Ellen Bialystok
Rent, Rent-Seeking, and Social Inequality (*Sociology*), Beth Red Bird and David B. Grusky

Genetics and the Life Course (*Sociology*), Evan Charney

Neighborhoods and Cognitive Development (*Psychology*), Jondou Chen and Jeanne Brooks-Gunn

Enduring Effects of Education (*Sociology*), Matthew Curry and Jennie E. Brand

Youth Entrepreneurship (*Psychology*), William Damon *et al.*

Resilience (*Psychology*), Erica D. Diminich and George A. Bonanno

Cognitive Processes Involved in Stereotyping (*Psychology*), Susan T. Fiske and Sydney H. Dupree

Patterns of Attachments across the Lifespan (*Psychology*), Robyn Fivush and Theodore E. A. Waters

Social Class and Parental Investment in Children (*Sociology*), Anne H. Gauthier

Evolutionary Approaches to Understanding Children's Academic Achievement (*Psychology*), David C. Geary and Daniel B. Berch

Changing Family Patterns (*Sociology*), Kathleen Gerson and Stacy Torres

Setting One's Mind on Action: Planning Out Goal Striving in Advance (*Psychology*), Peter M. Gollwitzer

Depression (*Psychology*), Ian H. Gotlib and Daniella J. Furman

- Family Relationships and Development (*Psychology*), Joan E. Grusec
 The Future of Employment, Wages, and Technological Change (*Economics*),
 Michael J. Handel
 An Evolutionary Perspective on Developmental Plasticity (*Psychology*),
 Sarah Hartman and Jay Belsky
 Divorce (*Sociology*), Juho Härkönen
 Lifecourse and Aging (*Anthropology*), Haim Hazan
 The Development of Social Trust (*Psychology*), Vikram K. Jaswal and Marissa
 B. Drell
 Maternal and Paternal Employment across the Life Course (*Sociology*),
 Michaela Kreyenfeld
 Positive Development among Diverse Youth (*Psychology*), Richard M. Lerner
et al.
 Neural and Cognitive Plasticity (*Psychology*), Eduardo Mercado III
 Social Change and Entry to Adulthood (*Sociology*), Jeylan T. Mortimer
 The Impact of Learning Technologies on Higher Education (*Education*),
 Christopher S. Pentoney *et al.*
 Limits to Human Longevity (*Sociology*), Samuel H. Preston and Hiram
 Beltrán-Sánchez
 Social Relationships and Health in Older Adulthood (*Psychology*), Theodore
 F. Robles and Josephine A. Menkin
 Education in an Open Informational World (*Education*), Marlene Scardamalia
 and Carl Bereiter
 Gender and the Transition to Adulthood: A Diverse Pathways View (*Sociol-
 ogy*), Ingrid Schoon
 Modeling Life Course Structure: The Triple Helix (*Sociology*), Tom Schuller
 Becoming Adult: Meanings of Markers to Adulthood (*Sociology*), Richard A.
 Settersten, Jr. *et al.*
 Family Income Composition (*Sociology*), Kristin E. Smith
 Emerging Trends: Shaping Age By Technology and Social Bonds (*Sociology*),
 Annette Spellerberg and Lynn Schelisch
 Impact of Limited Education on Employment Prospects in Advanced
 Economies (*Sociology*), Heike Solga
 Crime and the Life Course (*Sociology*), Mark Warr and Carmen Gutierrez
 Public Opinion, the 1%, and Income Redistribution (*Sociology*), David L.
 Weakliem
 Recent Demographic Trends and the Family (*Sociology*), Lawrence L. Wu
 Globalization: Consequences for Work and Employment in Advanced
 Capitalist Societies (*Sociology*), Tony Elger