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Systems maps

MENTAL CAPITAL AND WELLBEING PROJECT

*This report has been produced as part of the UK Government's Foresight Project, Mental Capital and Wellbeing.
The views expressed do not represent the policy of any Government or organisation.*

Mental Capital and Wellbeing: Making the most of ourselves in the 21st century

Systems maps

This report is intended for:

Policy makers and a wide range of professionals and researchers whose interests relate to mental capital and wellbeing.

This report should be cited as:

Foresight Mental Capital and Wellbeing Project (2008).
Systems maps.
The Government Office for Science, London

The Government Office for Science would like to thank the firm shiftN which led the systems work within the Foresight Project on Mental Capital and Wellbeing, and also the many experts and stakeholders from the UK and around the world who contributed to this work.

The Foresight Programme is run by the UK Government Office for Science under the direction of the Chief Scientific Adviser to HM Government. Foresight strengthens strategic policy-making in government by embedding a futures approach.

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1 Introduction

This report provides a catalogue of important systems diagrams that have been produced within the Foresight Project on Mental Capital¹ and Wellbeing². Some of these diagrams also appear in particular Project reports³.

This report is not intended as a stand alone document. Rather, it should be read in conjunction with the final Project report, which describes the Project and its key findings, and the following reports which synthesise the science and evidence base:

- Mental capital through life: Future challenges;
- Learning through life: Future challenges;
- Mental health: Future challenges;
- Wellbeing and work: Future challenges; and
- Learning difficulties: Future challenges

The interested reader can also obtain detailed information on these diagrams in a report that has been produced by the firm shiftN, which undertook the systems work for the Project. In particular, that report details how the various diagrams were built up from their component parts, and provides other explanatory information. That contractual report can be obtained via www.foresight.gov.uk.

The production of the diagrams and their use within the Project

The systems diagrams mostly detail the many factors that affect aspects of mental capital and wellbeing. They were used within the Project to gain a clearer understanding of the complex interactions and interrelationships of these factors.

Their production involved extensive consultation with leading experts. However, the systems that they seek to capture visually are extremely complex, and therefore the detail which the diagrams contain is inevitably controversial: for example, some readers may argue for the inclusion of other factors, or for different linkages. Nevertheless, whilst the diagrams do not purport to be definitive, it is hoped that others will find them useful.

¹ "Mental capital" refers to the totality of an individual's cognitive and emotional resources, including their cognitive capability, flexibility and efficiency of learning, emotional intelligence (e.g. empathy and social cognition), and resilience in the face of stress. The extent of an individual's resources reflects his/her basic endowment (genes and early biological programming), and their experiences and education, which take place throughout the lifecourse.

² "Wellbeing" throughout this report refers to "mental wellbeing". Mental wellbeing is a dynamic state in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community. It is enhanced when an individual is able to fulfil their personal and social goals and achieve a sense of purpose in society.

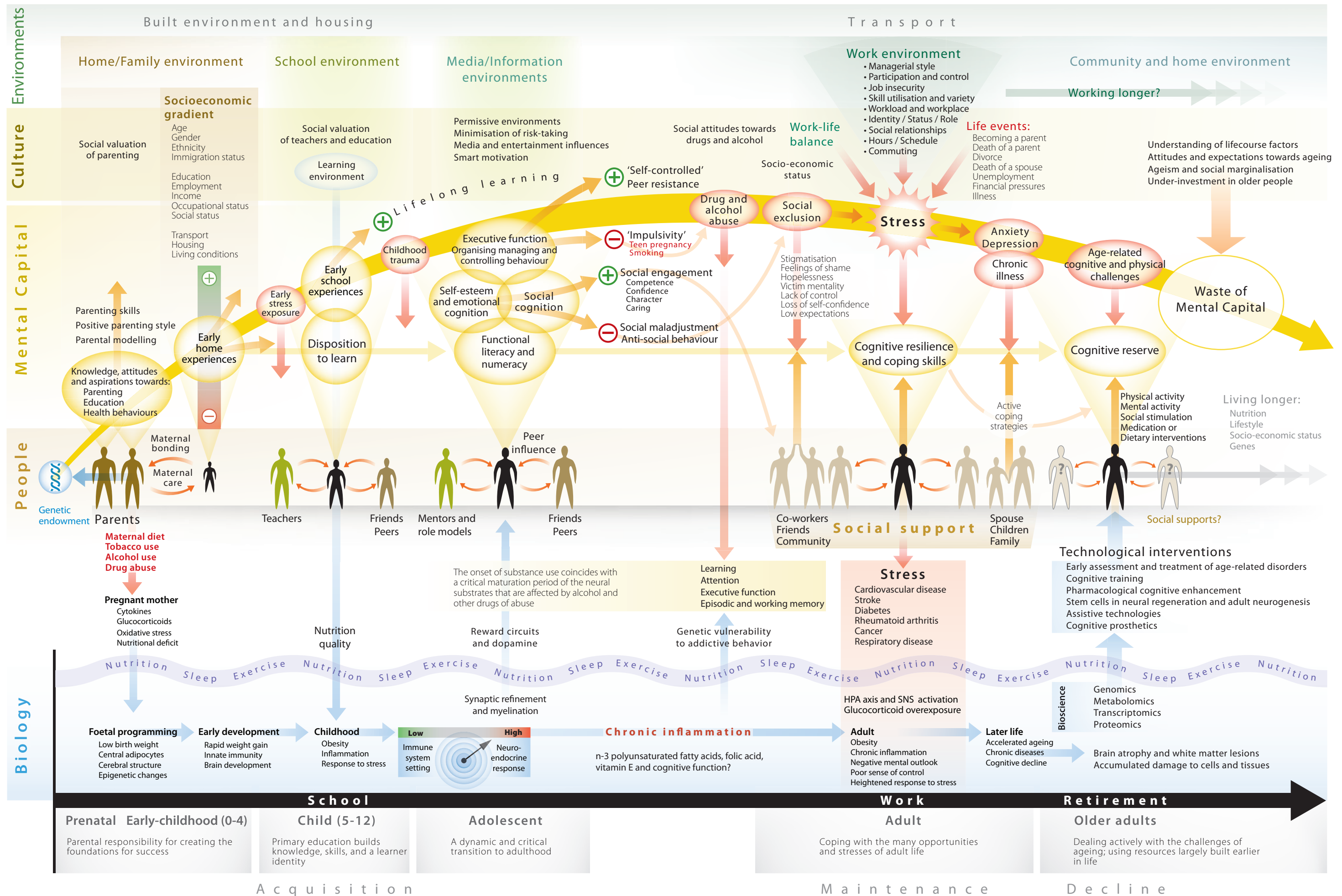
³ See Appendix A for a list of the Project reports..

2 Catalogue of diagrams

The following table lists the systems diagrams that are reproduced here, together with a brief description.

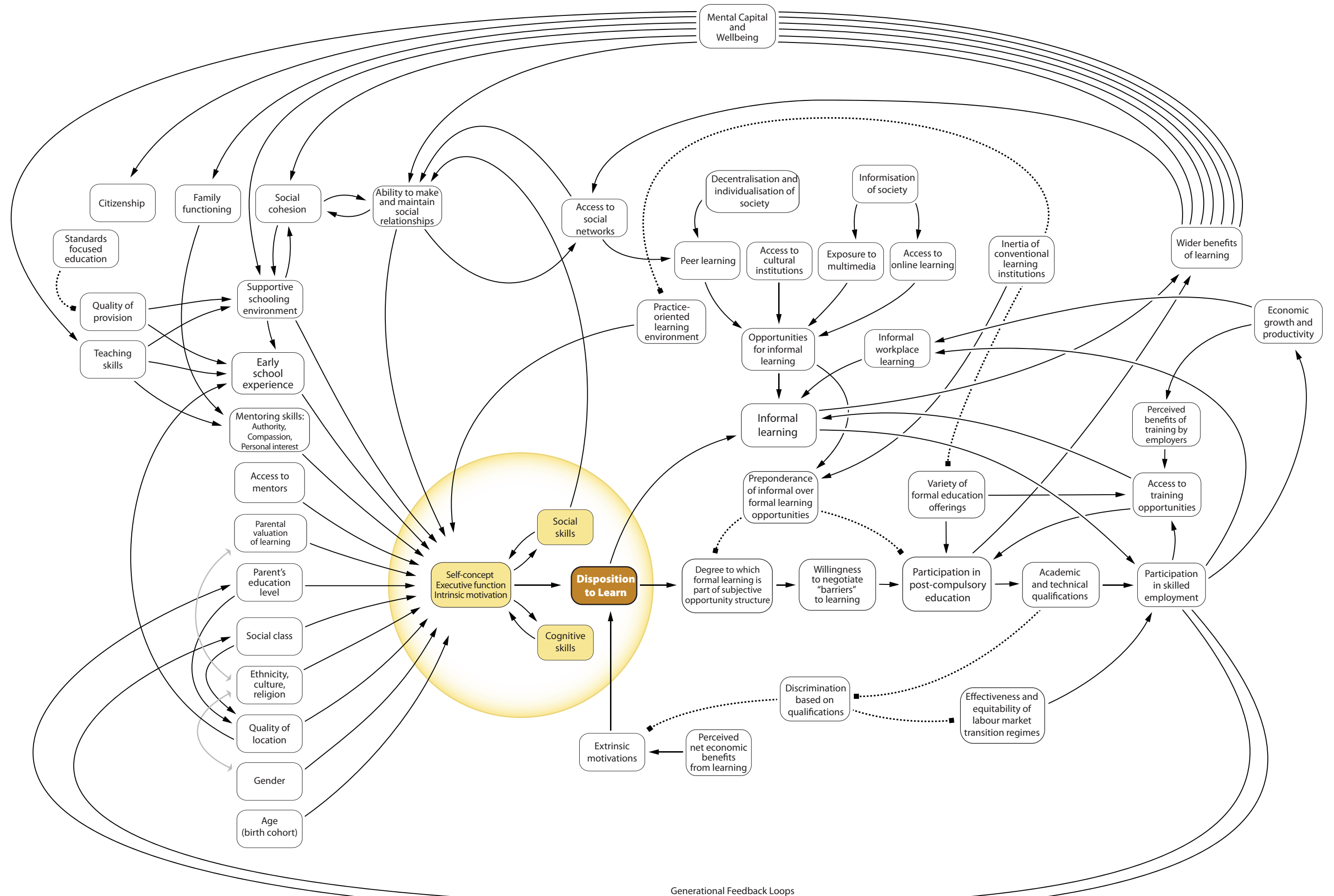
Page	Systems diagram
3	Mental capital through life – conceptual overview The trajectory of mental capital through life, detailing some of the many factors that influence mental capital and how they are connected across the lifecourse
4	Learning through life – conceptual overview A visualisation of the issues associated with learning through life
5	Disposition to learn – influence diagram A diagram of the many factors that interact to affect disposition to learn
6	Learning difficulties – conceptual overview A visualisation of the many factors that affect learning difficulties
7	Functional literacy – influence diagram A diagram of the causal factors that drive the development of functional literacy
8	Functional numeracy – influence diagram A diagram of the causal factors that affect the development of functional numeracy
9	Executive function – influence diagram A diagram showing the causal factors involved the development of executive function
10	Mental health – conceptual overview A visualisation of the principal factors that affect mental health and mental ill-health, and their inter-relationships
11	Stigma associated with mental ill-health – influence diagram A diagram of the many factors affecting the stigmatisation of, and discrimination against, people with mental illness
12	Stigma associated with mental ill-health – actors An illustration of some of the people and settings that can influence stigma and discrimination
13	Wellbeing at work – conceptual overview A visualisation of the factors that affect wellbeing at work and the associated positive and negative outcomes of healthy versus unhealthy workplace environments
14	Stress at work – influence diagram A diagram of the many factors that interact to affect stress at work

Mental capital through life – conceptual overview

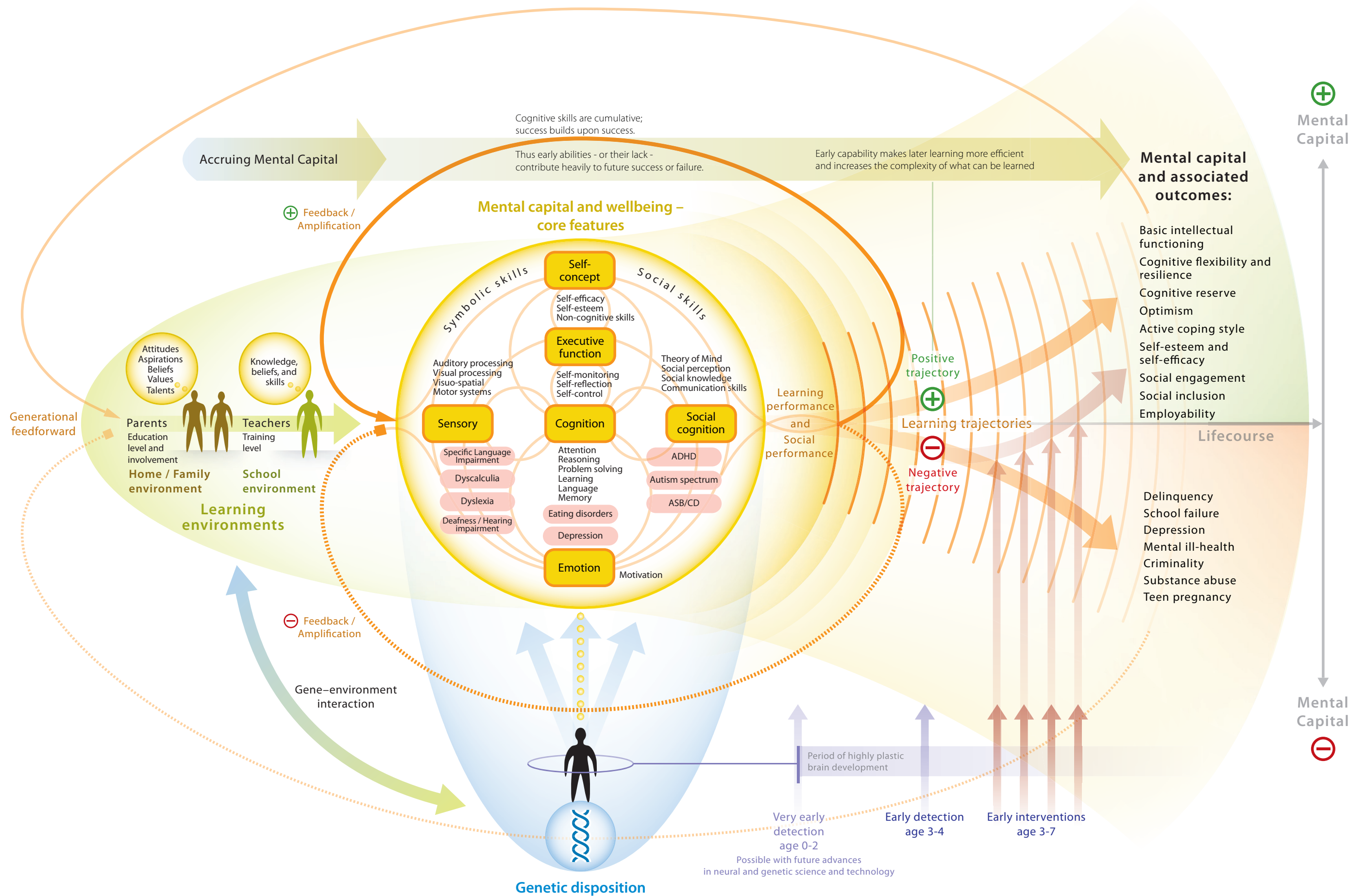




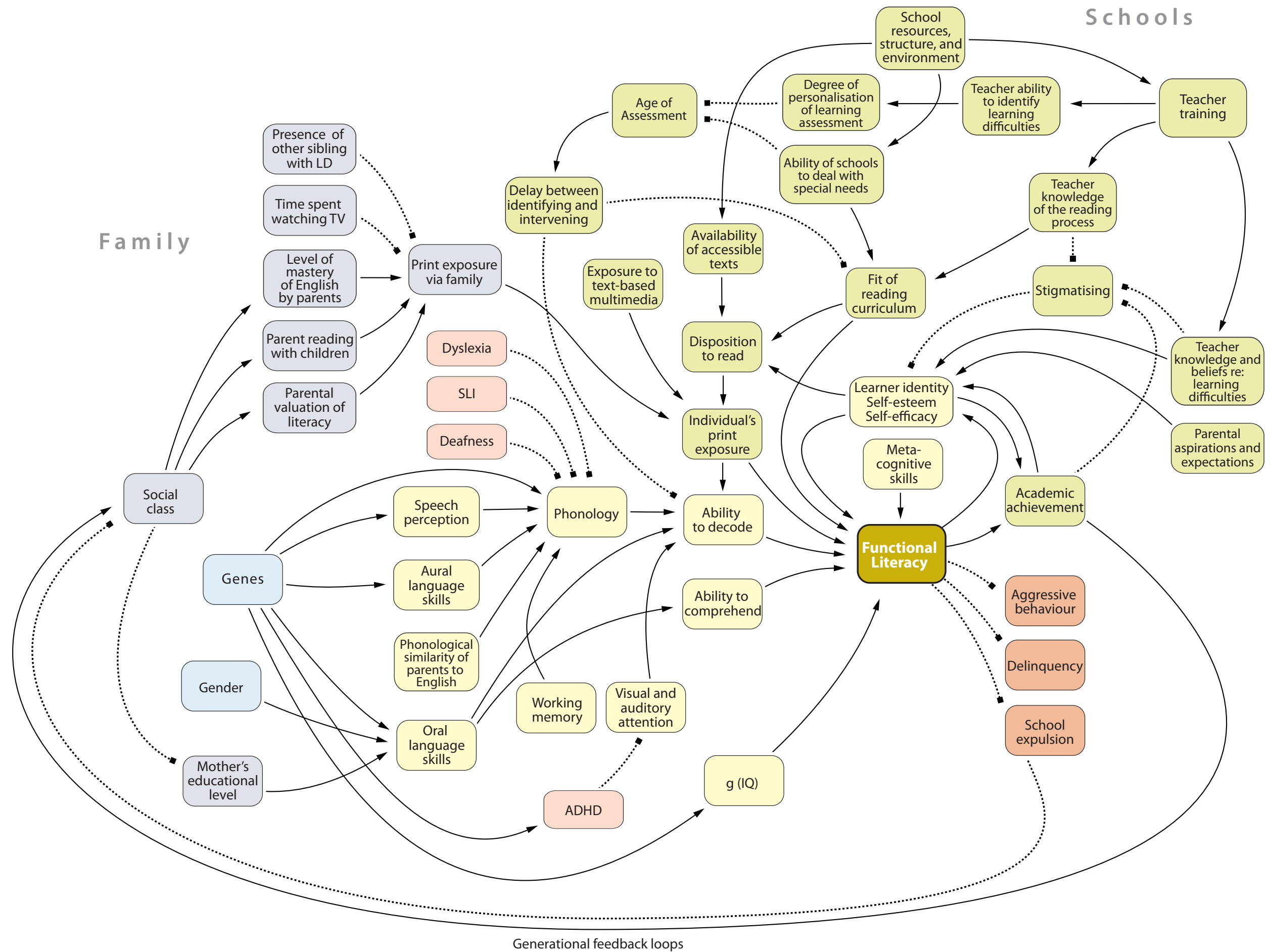
Disposition to learn – influence diagram



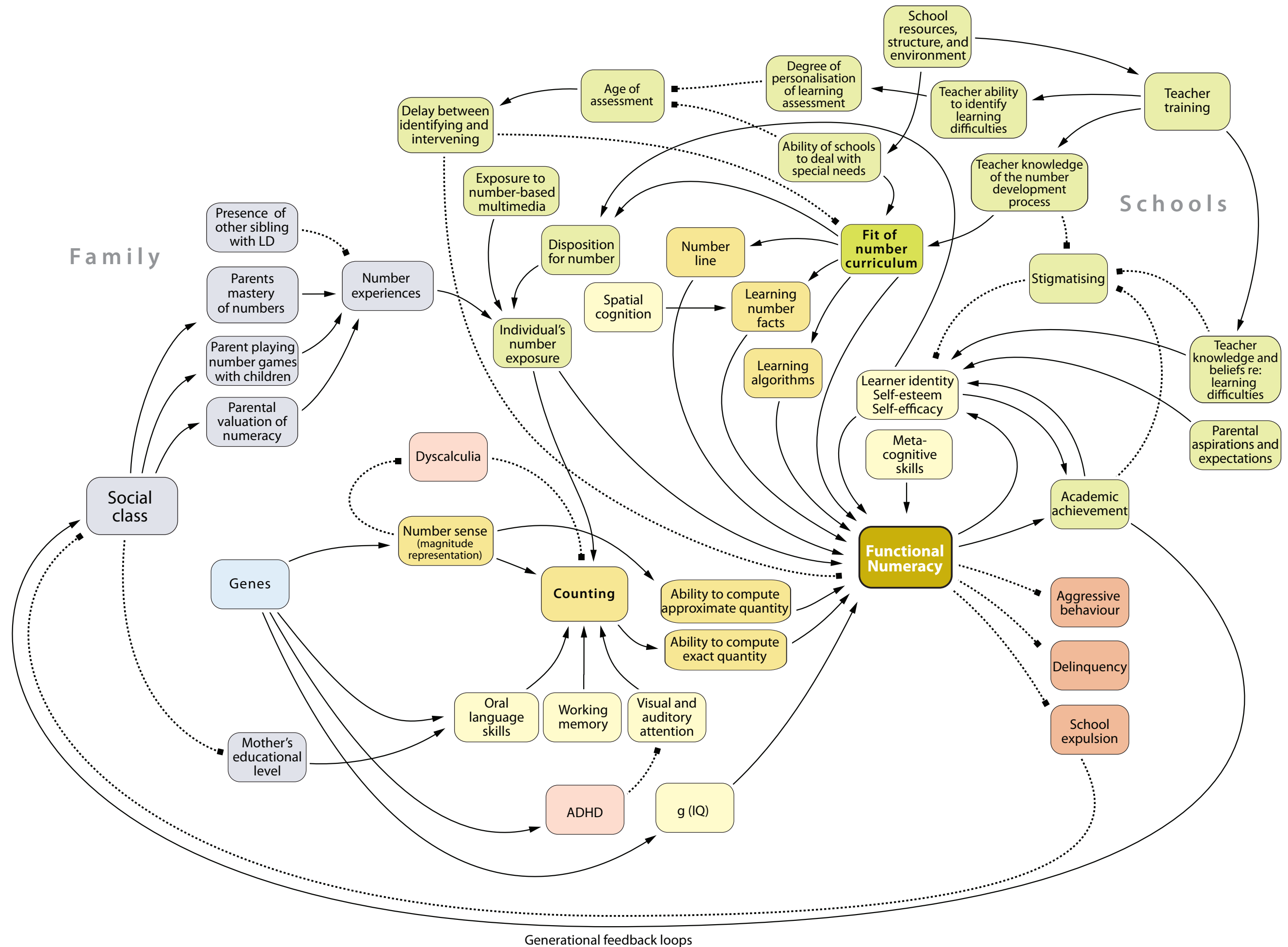
Learning difficulties – conceptual overview



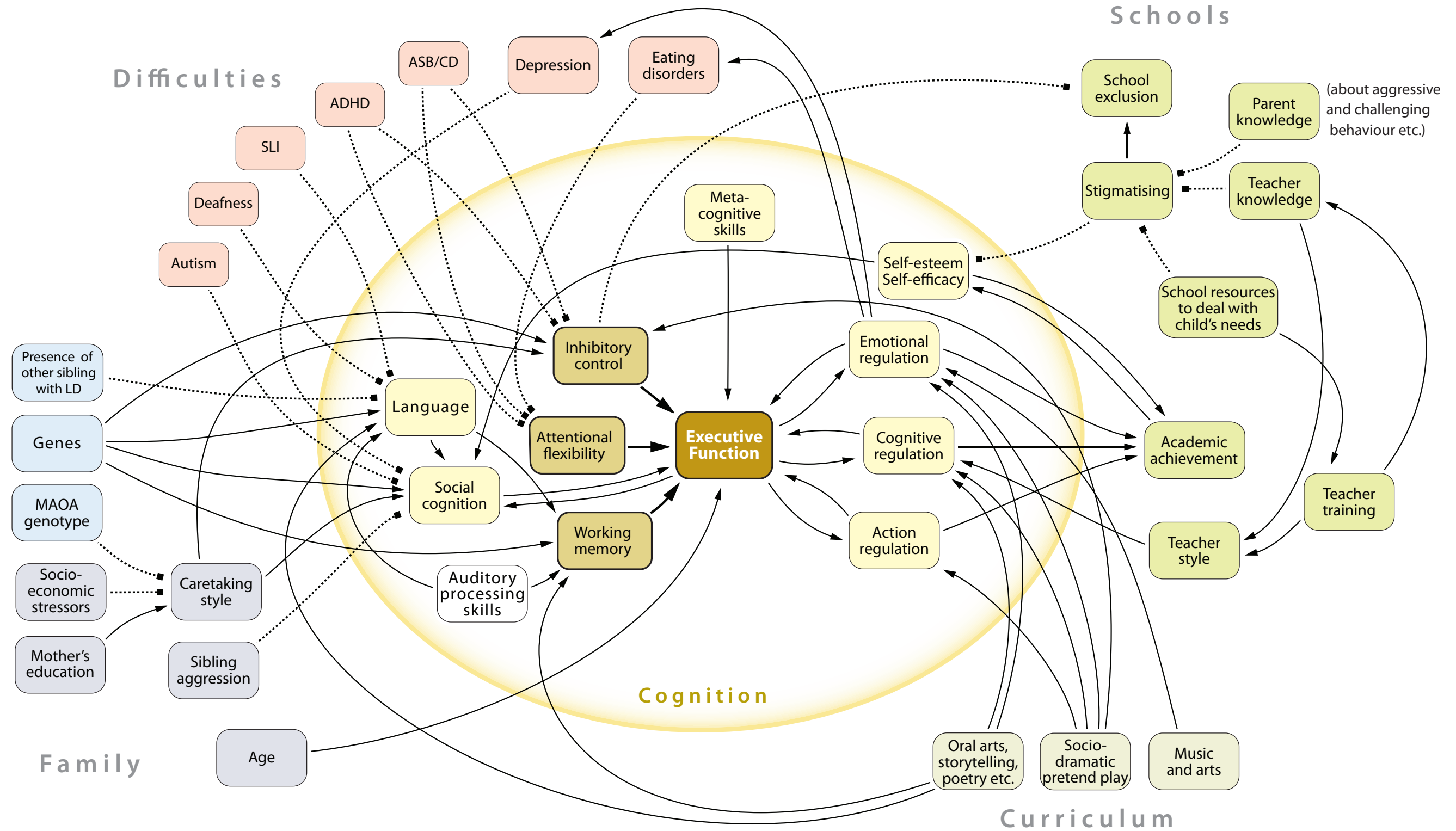
Functional literacy – influence diagram



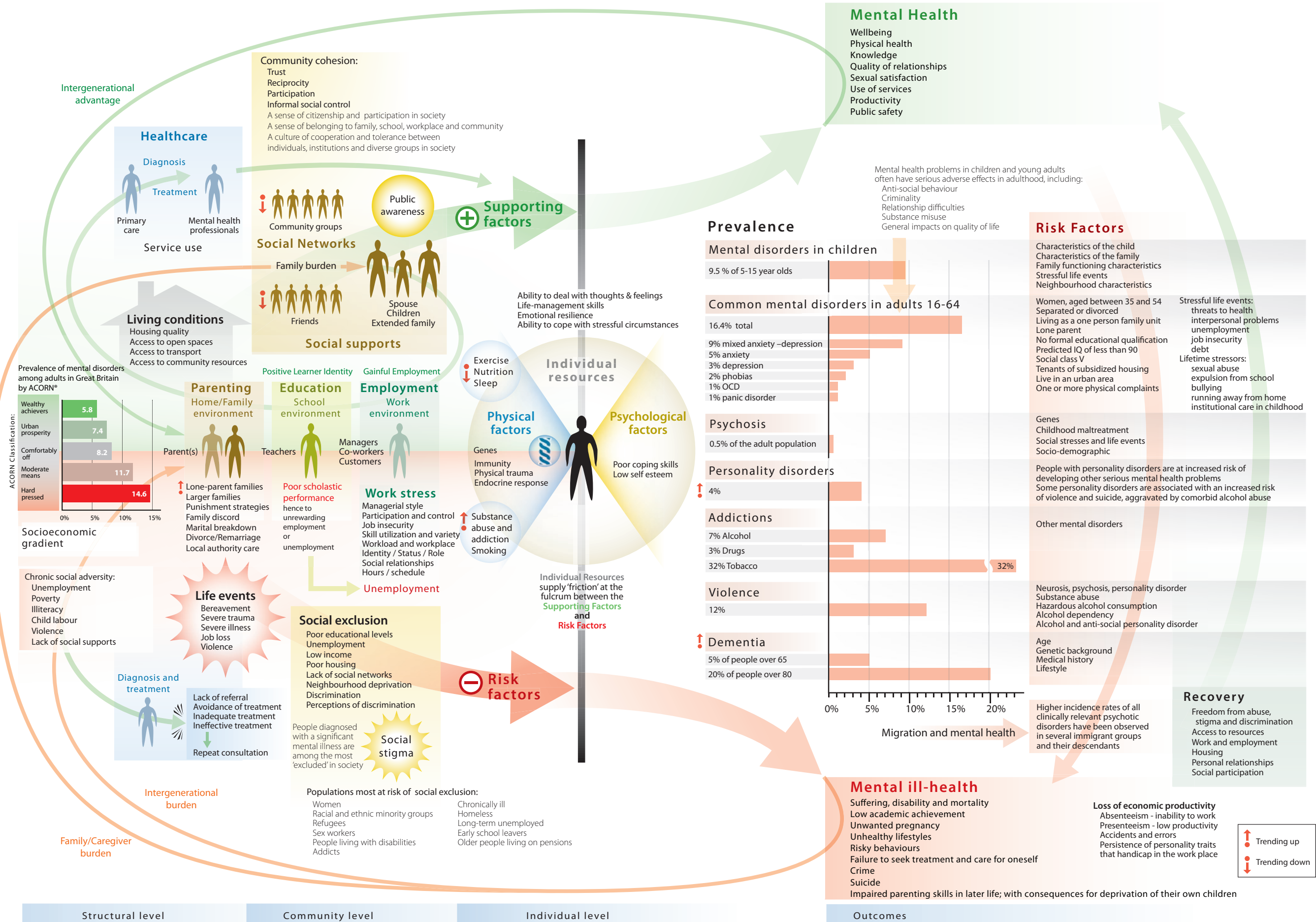
Functional numeracy – influence diagram

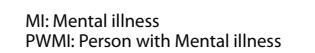


Executive function – influence diagram

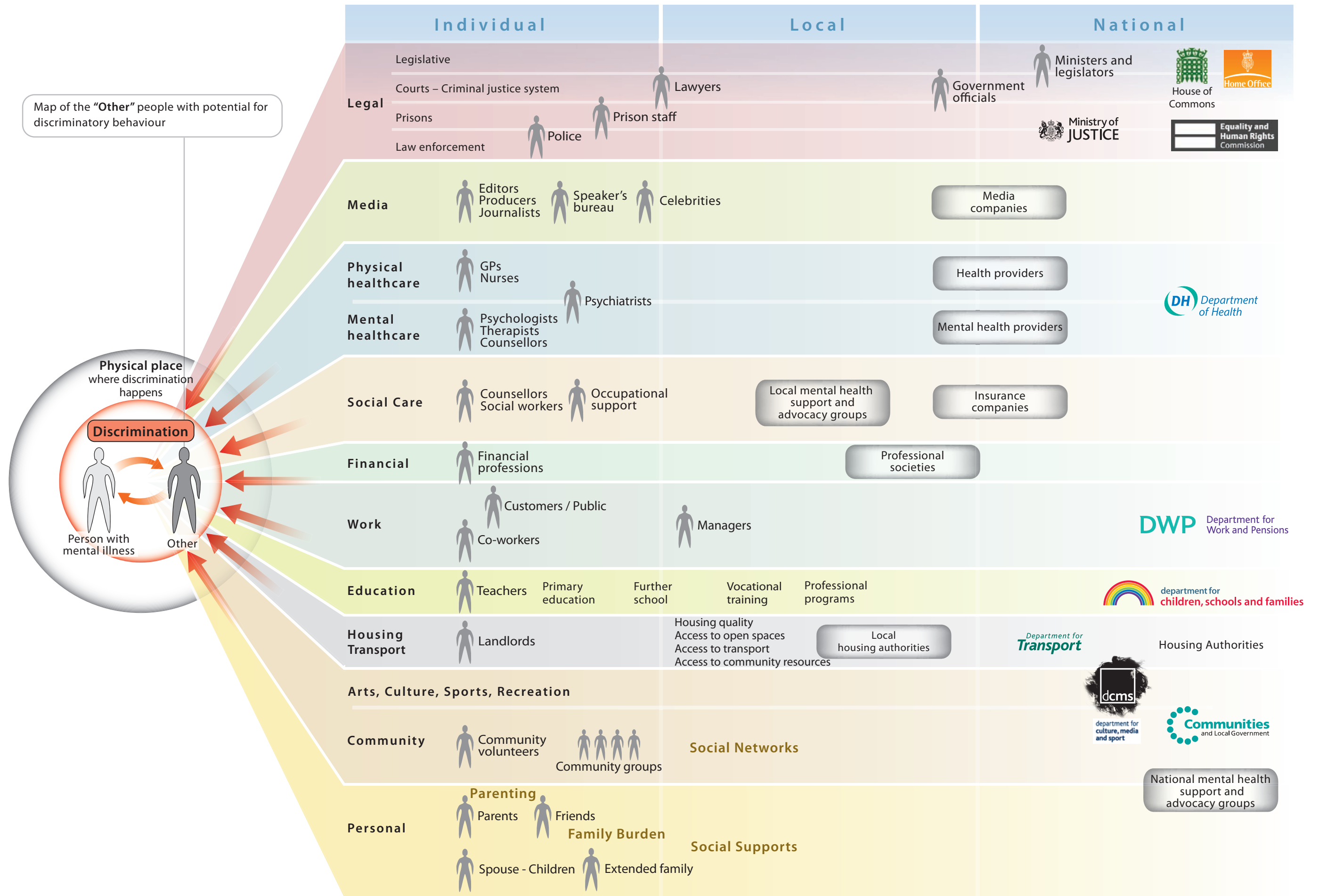


Mental health – conceptual overview

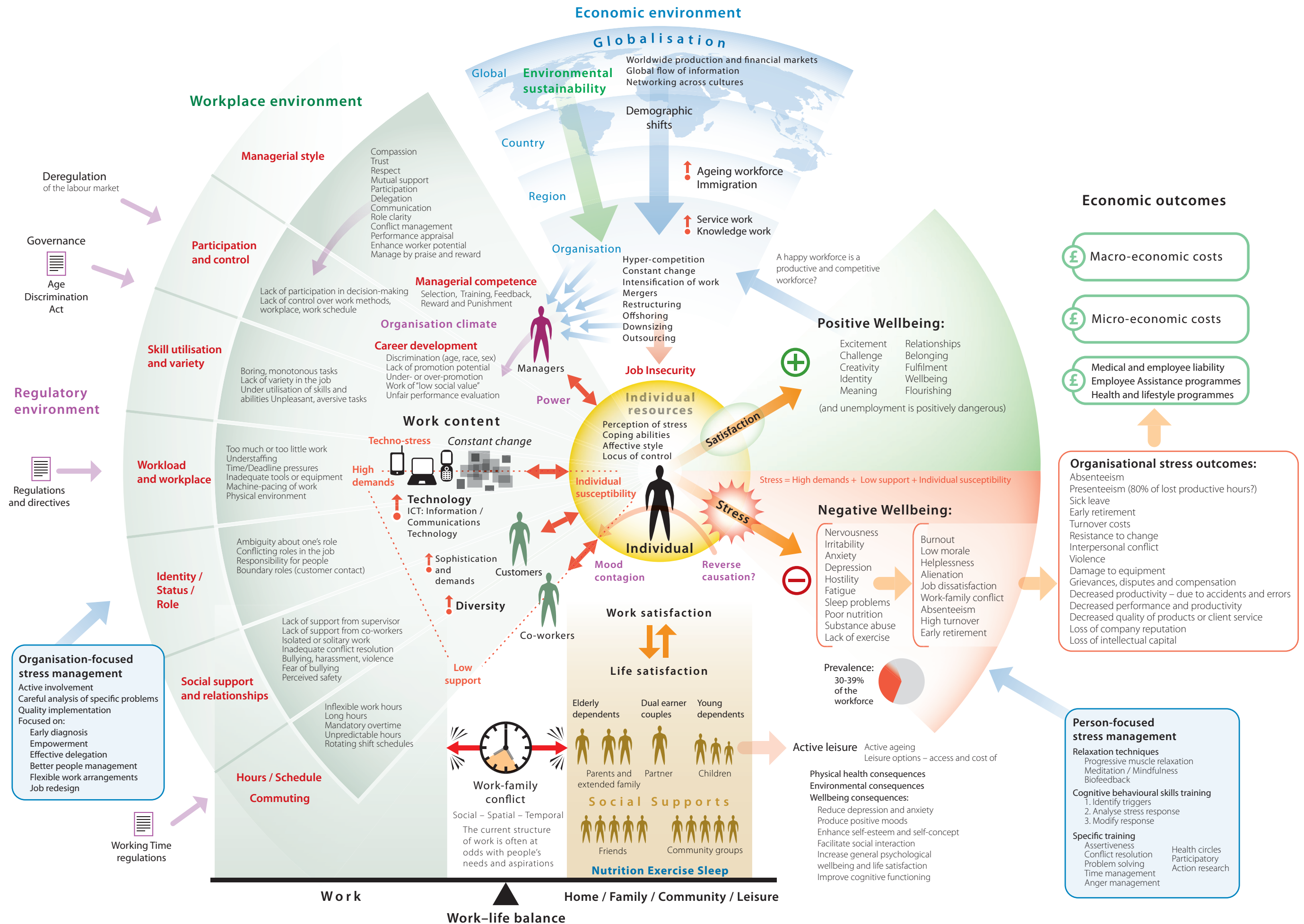




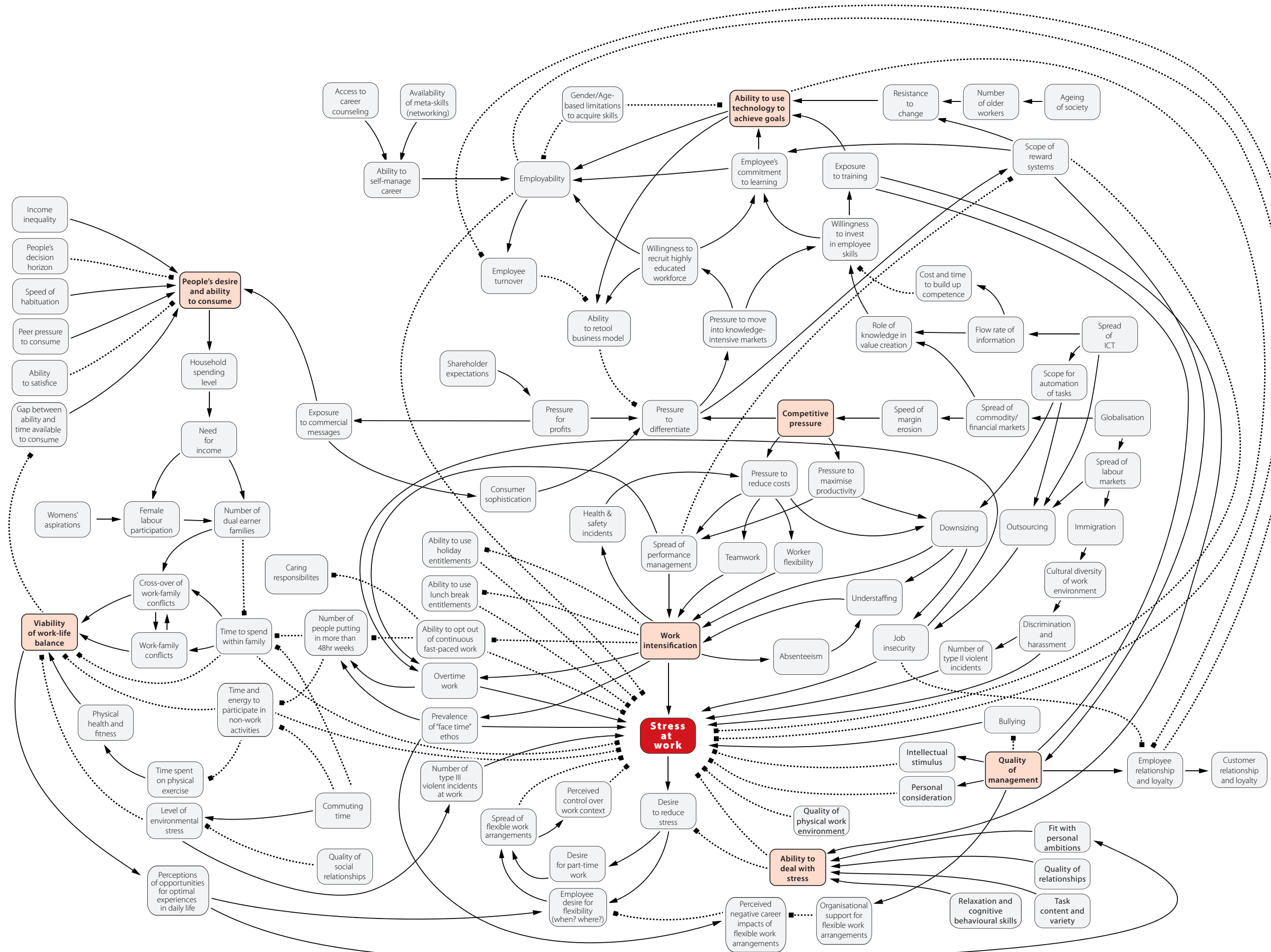
Stigma associated with mental ill-health – actors



Wellbeing at work – conceptual overview



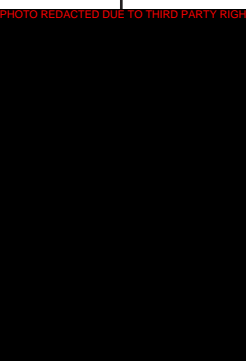
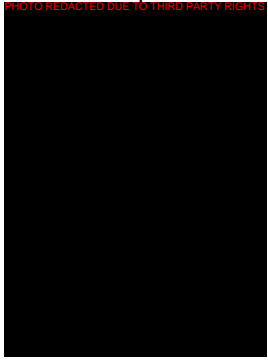
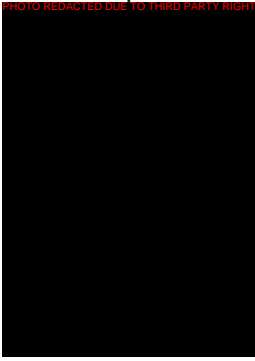

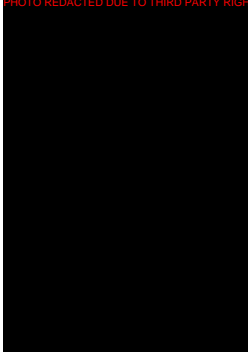

Stress at work – influence diagram



Appendix A:
Structure of the
Project reports and
supporting papers

Mental Capital and
Wellbeing:
Making the most
of ourselves in the
21st century
Final Project Report



							
Mental capital through life: Future challenges		Learning through life: Future challenges	Mental health: Future challenges	Wellbeing and work: Future challenges	Learning difficulties: Future challenges	Cross-Project papers	S1: Systems maps
SR-E1: Neuroscience of education	SR-E17: Nutrition, cognitive wellbeing and socioeconomic status	SR-A2: Learning at work	SR-B1: Genetics and social factors	SR-C1: Workplace stress	SR-D1: Specific language impairment	SR-X2: Science of wellbeing	
SR-E2: Human reward		SR-A3: Skills	SR-B2: Mental health of older people	SR-C2: Mental wellbeing at work and productivity	SR-D2: Dyslexia	SR-X3: Neurobiology of wellbeing	
SR-E3: Neuroeconomics	SR-E18: Nutrition and cognitive health	SR-A4: Participation in learning	SR-B3: Positive mental health	SR-C3: Management style and mental wellbeing at work	SR-D3: Adult learning disabilities	SR-X5: Neural circuit assembly	
SR-E4: Cognitive reserve	SR-E20: Effect of chronic stress on cognitive function through life	SR-A5: Evidence-informed principles from the Teaching and Learning Research Programme	SR-B4: Mental disorders in the young	SR-C4: Flexible working arrangements and wellbeing	SR-D4: Dyscalculia	DR-1: ICT as a driver of change	
SR-E5: The adolescent brain	SR-E21: Depression and its toll on mental capital	SR-A7: Estimating the effects of learning	SR-B5: Prisoners	SR-C5: New technology and wellbeing at work	SR-D5: Deafness	DR-2: Physical environment and wellbeing	
SR-E6: Behavioural economics	SR-E22: Fitness and cognitive training	SR-A9: Self-regulation and executive function	SR-B6: The homeless	SR-C6: Stress management and wellbeing	SR-D7: Genetics and diagnosis of learning difficulty	ER-1: Ethics	
SR-E7: Resilience	SR-E24: Effects of exercise on cognitive function and mental capital	SR-A10: Lifelong learning across the world	SR-B7: Children in local authority care	SR-C7: Working longer	SR-D8: Conduct disorder and anti-social behaviour		
SR-E8: Adolescent drug users	SR-E25: Technology solutions to prevent waste of mental capital	SR-A11: Non-cognitive skills	SR-B8: The costs of mental disorders	SR-C8: Leisure: the next 25 years	SR-D9: Social cognition and school exclusion		
SR-E9: Pharmacological cognitive enhancement	SR-E27: Housing as a determinant of mental capital	SR-A12: Future technology for learning	SR-B9: Serious and enduring mental illness	SR-C9: Training in the workplace	SR-D10: Autism and autism spectrum disorders		
SR-E10: Stem cells in neural regeneration and neurogenesis	SR-E29: Cognitive neural prosthetics		SR-B10: Personality disorders	SR-C10: Careers	SR-D11: Attention Deficit Hyperactivity Disorder		
SR-E11: Early detection of mild cognitive impairment and Alzheimer's disease: An example using the CANTAB PAL	SR-E31: Cellular and molecular logic of neural circuit assembly		SR-B11: Violence	SR-C11: Violence at work	SR-D12: New technologies and interventions		
SR-E12: Anxiety disorders			SR-B12: Ageing		SR-D13: Trajectories of development and learning difficulties		
SR-E13: Neurocognition and social cognition in adult drug users			SR-B13: Migrants		SR-D14: Early neural markers of learning difficulty		
SR-E14: Normal cognitive ageing			SR-B14: Substance abuse		SR-D15: Childhood depression		
SR-E15: Social cognition in teenagers – inclusion			SR-B15: Depression		SR-D16: Eating disorders		
SR-E16: HPA axis, stress, and sleep and mood disturbance							
						Note 1: Some reference numbers were assigned to topics; however, the reports/papers were not subsequently commissioned.	
						Note 2: The Project commissioned some additional “discussion papers” as referred to in the text of the final report.	
						These will be made available through www.foresight.gov.uk in due course.	

All the reports and papers produced by the Foresight Mental Capital and Wellbeing Project may be downloaded from the Foresight website (www.foresight.gov.uk).
Requests for hard copies may be made through this website.