Contents

CHAPTER 1	Everything is not the way it sounds	5
CHAPTER 2	The emergence of Darwinism or what Darwin did and did not discover and how How we accidentally discovered the function of the Rh factor • How Darwin pulled the reader's leg • What Darwin actually discovered and how • Why were biologists (in contrast to the general public) unhappy with the theory of evolution • Darwinism fights back – the fitting (but well concealed) answer of the Brno abbot • Summary and incitement	10
CHAPTER 3	How Darwinism became normal science and what the "New Synthesis" was Why nature is governed by Mendel's laws, or a little secondary school material won't hurt you (I hope) • How Darwinism changed to Neodarwinism and how it became normal science • Science, are you at all normal? • Summary and incitement	34
CHAPTER 4	Formation of differences between species – chance or necessity? Darwin's (almost unknown) theory of the origin of the species • The part played by chance in making humans human-like (and apes ape-like) • Macroevolution – the story of survival of the lucky ones • Chance in microevolution – what is up is also down • What do mice do in the park when they have nothing to do? – They drift • The hitchhiker's guide to the micro-evolutionary galaxy • Summary and incitement	45
CHAPTER 5	How are complexity and organization formed in organisms and what does this mean? What is complexity?hmm, that is quite complex • On the formation of complexity (and organization) through self-organization • Snow and games – sorting from the standpoint of stability • On the formation of complexity (and organization) through passive evolution or tinkering in evolution • How (and why) should we edit DNA – let's ask trypanosome • You can't knock a wall down with your head (or your back) • Summary and incitement	60
CHAPTER 6	On the formation of species without the participation of natural selection Sympatric speciation – don't be insulted, neighbour, but I won't reproduce with you • Allopatric speciation – my mother is crying away over the hills • Reproduction isolation while you wait, speciation in a single day • Speciation without sex – anyone can do that • Summary and incitement	78

CHAPTER 7	How Darwinism survived its own death – frequency-dependent selection and the theory of evolutionarily stable strategies	90
	About Hansel and Gretel and frequency-dependent selection • The dove and the hawk or he who plays hasn't time to get into trouble • Who would still care about biological fitness! • Thousands of hawks and doves in us • The revolution that didn't happen • Summary and incitement	
CHAPTER 8	Formation of the theory of the selfish gene – Darwin, watch out – someone is after your throat	105
	The selfish gene – finally, something is happening • Puppet theatre • Fairy tale about evil Blue Beard • The selfish gene and the end of bared teeth and bloody talons • Summary and incitement	103
CHAPTER 9	It was only a matter of time or the skeleton in the cupboard	
	of the selfish gene theory	119
	Everything is wrong, let's go back to the trees • How not to train a rowing club • Neither Darwin nor Dawkins, so what now? • Summary and incitement	
CHAPTER 10	Theoretical discussions are all very well, but what does the green	125
	tree of life have to say about all this? How many genes fit onto the head of a pin and how many are required for one	123
	trait? • Two and two equals minus seven or about genetic interactions • And why not simply test it? • Darwin's "sweet" secret • Summary and incitement	
CHAPTER 11	And where does biological evolution come from, then?	135
	Elastic world • The riddle and its solution – It's elementary, my dear Watson • Brave plastic world • Brave frozen world • Summary and incitement	
CHAPTER 12	And what does palaeontological data have to say?	143
	On missing links and evolutionary leaps • Wakening of the Sleeping Beauty and theory of punctuated equilibria • Two explanations (and how to select the worse one of the two) • Summary and incitement	
CHAPTER 13	And what does genetic data have to say?	153
	How should heredity be measured? • Larger is better (and so what?) • Microevolution is not macroevolution • Summary and incitement	
CHAPTER 14	Evolutionary plasticity in experiments performed by Mother Nature	158
	Why are species on oceanic islands "strange"? • Asexual species – slower but better • Why wheat is "spoiled" faster than rye – microevolution of self-pollinating species • The wise naivety of Sir John Sebright • Selection in us and inheritance of acquired traits • Why are identical twins identical? • Grafting of tomato plants and the great fraud that maybe wasn't a fraud after all • How to make (strange)	
	flies • Summary and incitement	

CHAPTER 15	Ecological consequences of the theory of frozen plasticity	
	(or farewell to the brave Darwinist world)	174
	Why mice haven't eaten us yet • Why bacteria haven't eaten us yet • Why asexual species prefer extremes • A short word about ants • A brief reference to mice and men • Why asexual species prefer extremes – continued • Beware! Invasion! • A parasite is the one to blame • Renewed plasticity can be blamed for everything (what else!) • How to extinguish a flood • Summary and incitement	
CHAPTER 16	Could the theory of evolutionary plasticity explain the existence	
	of evolutionary trends?	186
	Things work out differently in the world of frozen species • Where do evolutionary trends come from? • The many faces of a selection • How the weakling won out over the super-mouse (in species selection) • Where did sex come from? • The thirty-first (and certainly finally the correct) hypothesis for the formation of sexuality • It's easy for large species to speciate, isn't it? • Trends in the world of freezing species • Summary and incitement	
CHAPTER 17	Sitting in the pub with the good and bad species of Daniel Frynta	199
	Why a duck-billed platypus cannot be kept for its wool • And we have it! – frozen plasticity • Summary and incitement	
CHAPTER 18	Could the theory of evolutionary plasticity explain the formation	
	and maintenance of altruistic behaviour?	204
	In what other way do plastic and frozen species differ? • Might there really be group and inter-species selection? • Farewell to Eugenics! • Summary and incitement	
CHAPTER 19	A few words in conclusion	211
Index of to	exts in Grey Boxes	215
Index		219