

Author accepted manuscript version of front matter and introduction, *Consciousness: An Introduction* (3rd edition), Susan Blackmore and Emily T. Troscianko, Routledge 2018. Please cite from the published version.

Consciousness: An Introduction

3rd Edition

Susan Blackmore and Emily T. Troscianko

To all the students who took Sue's consciousness course.

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Third Edition:

We are grateful to all those who helped shape this new edition, especially the anonymous readers who dedicated so much time and effort to reading the entire manuscript and commenting on it in detail. We were unable to act on all the excellent suggestions, but the final version is significantly stronger for this rich input. The inevitable mistakes and omissions that remain are our own. We thank Jackie Andrade at Plymouth University for helpful comments early on, and our editorial team at Routledge, including Liz Burton, Ceri Griffiths, Holly Omand, and Sadé Lee, as well as Sue's agent Donald Winchester. Finally, we appreciate everything our partners have done – through patience, encouragement, cooking, and tea-making – to help keep us sane(ish).

Prefaces

Preface to the First Edition

I have loved writing this book. For many years, working as a lecturer, I never seemed to have enough time to read or think or do the work I really wanted to do. So in September 2000 I left my job, and threw myself into the vast and ever-expanding literature of consciousness studies. Writing the book meant spending over two years mostly at home completely by myself, reading, thinking and writing, which was a real pleasure.

I could never have worked this way without three things. First, there are all the conferences at which I have met other scientists and philosophers and been able to share ideas and arguments. Second there is the Internet and email which makes it possible to keep in touch with colleagues all over the world instantly without moving from my own desk. Third, there is the WWW which has expanded beyond all recognition in the few years since I first thought of writing this book. I am constantly amazed at the generosity of so many people who give their time and effort to make their own work, and the work of others, freely available to us all.

I could never have enjoyed working at home so much were it not for my wonderful family; my partner Adam Hart-Davis, and my two children Emily and Jolyon Troscianko. Having Joly drawing the cartoons meant many happy battles over whether self is more like a candle, a raindrop, or bladderwrack seaweed, and what the Cartesian Theatre would look like if it existed. My thanks go to them all.

Preface to the Second Edition

So much has happened in the past seven or eight years of consciousness studies! So updating this book has been a real challenge. Although there have been new philosophical ideas and some theoretical developments, the real impetus for

change has come from neuroscience. Questions that, even a few years ago, seemed beyond empirical reach are now routinely being addressed by experiments.

One example especially dear to my heart is the out-of-body experience. Traditionally rejected by experimental psychologists as an oddity, or even make-believe, OBEs seemed to evade any theoretical grip. Back in the 1980s, when I was researching these strange experiences, most scientists agreed that nothing actually left the body but, beyond vague speculation, could offer no convincing alternative. In the first edition of this book I described hints that an area of the temporal lobe might be implicated; now, in the second edition, I can describe repeatable experiments inducing OBEs, both by brain stimulation and by virtual-reality methods. Theory has gone forward in leaps and bounds and we can now understand how OBEs arise through failures of the brain mechanisms involved in constructing and updating the body image. As so often happens, learning about how something fails can lead to new insights into how it normally functions – in this case our sense of bodily self.

There have been other new developments in the understanding of self. Not only are more philosophers learning about neuroscience and bringing these two disciplines closer together, but research in another previously fringe area – meditation – has provided surprising insights. From brain scans of long-term meditators we can see how attentional mechanisms change after long training and how possibly the claim that self drops out may be grounded in visible brain changes.

In more down-to-earth ways, developments in machine consciousness have provided new constraints on how brains must work. Software and robot engineers struggle to make their systems do tasks that humans find easy and in the process are discovering what kinds of internal models and what kinds of embodiment and interactions with the outside world are, and are not, needed. It seems that we, like machines, build up ways of understanding our worlds that are completely impenetrable to anyone else – and this may give us clues to the nature of subjectivity and the apparent privacy and ineffability of qualia. All these discoveries feed into the various theories and increasingly mean they can be tested.

Then there is the great hunt for the neural correlates of consciousness. Personally I think this highly active and popular approach is doomed to failure: it depends on the idea that some neural processes are conscious while others are not, and I believe this is a nonsense. But I'm in a tiny minority here. The important thing is that this work will inevitably reveal which approach is right. The rapid pace of change over these past few years suggests that we may soon find out and makes the prospect of the next few years very exciting indeed.

I have changed too. Since the first edition I have written a *Very Short Introduction to Consciousness* which, unlike this textbook, was explicitly meant to include my own ideas about consciousness. I enjoyed being made to explain so clearly why I think consciousness is an illusion. I then interviewed twenty top scientists and philosophers for my book *Conversations on Consciousness* and learnt that when Kevin O'Regan was a tiny boy he already thought of himself as a machine; that Ned Block thinks that O'Regan and Dennett don't even appreciate phenomenality; that Dan Dennett goes out of his way, every now and then, to give himself a good dose of the Zombic Hunch just so that he can practise abandoning it; and that Christof Koch, having thought so much about consciousness, doesn't squish bugs anymore. Having accepted that conscious will is an illusion, Dan Wegner said he gained a sense of peace in his life. Yet by contrast most of my conversationalists, when asked 'Do you have free will?' said they did, or if not that they lived their lives as though they did, which is not something I feel I can do anymore.

Consciousness is an exciting subject – perhaps the most exciting mystery we can delve into now that neuroscience is giving us so many new tools. I have no idea whether I will ever be able to update this book again. Even after so few years the task was daunting, and in a few more years the areas that seem important may have shifted completely. But we shall have to wait and see. Meanwhile I hope you will enjoy battling with the great mystery.

Preface to the Third Edition

Sue:

As soon as I was invited to write a third edition I knew that the whole structure of this book would have to change. Indeed I knew this back in 2009 when embarking, with both trepidation and enthusiasm, on the second. By then neuroscience was really beginning to take off but I did manage to squeeze everything into the old scheme. By 2016 this was no longer feasible; there was just too much exciting new research to introduce, so what could I do? I am a lone worker. I rarely collaborate with others and I love to work at home in silence and solitude. And even if I'd wanted to find a collaborator, who and where could they be, and how would we work together on such a complex book?

I was with my daughter in Oxford one day, sharing this huge problem with her, when we both spoke at once: – 'You wouldn't consider...?' – 'I could do it'. We laughed, and so our new collaboration was begun. I say 'collaboration' but in reality Emily has done almost all the massive amount of work involved in bringing our book up to date. I gave advice, read and edited what she had done, and wrote some small pieces myself, but mostly what is new is her work. Her interest in language added new dimensions to the overview of consciousness studies; her deep understanding of eating disorders brought her knowledge of psychotherapy to bear; and her background in literary studies led to our including literary quotations in every chapter. I would never have thought of this and have found some of these excerpts quite moving – as well as thought-provoking.

Working within the family might have proved traumatic but did not. My husband, Adam Hart-Davis, supported us throughout. Vast differences in our academic background might have been a hindrance but instead seemed to be a help, and despite coming at the study of consciousness from such different directions we seem to share the same general outlook: the hard problem is a distraction; consciousness is not an added extra to everything else we do; and our false intuitions are the major stumbling block to escaping from dualism.

I can only thank Emily for making this third edition not only possible but, I think, the best yet.

Emily:

Sue had mentioned several times that she'd been asked to do a third edition but wasn't sure she could face it. I don't know quite why it was that on the third or fourth occasion, sometime in the summer of 2014, it occurred to me to offer to help. My academic background is in neither psychology nor neuroscience, nor even in philosophy, but in literary studies. But despite my predictable teenage rebellion against my psychologist parents, during my doctorate I'd found myself returning to the scientific fold by investigating the experience of reading Kafka, and turning to lots of the same ideas Sue worked with – and even citing her quite often. And since then I've thought of myself as poised on the edges of many disciplines – quite a few of them the ones that make up this book.

I'd always thought this a wonderful, and surreally ambitious, book, and I hated the idea of it becoming gradually obsolete. Had I known quite how much time and energy the third edition would ask of me, or how hopeless the task would feel at times, I'm not completely sure I'd have made the offer. The process of co-authoring a book at all, let alone with my mother, let alone when living some of the time in her house, let alone when trying to do justice to the past six years of developments across all the fields that consciousness studies encompasses without adding many more words, has been something of an existential learning curve. Yet we've had lots of fun, too, and Sue has been very brave in letting me rip her baby to shreds and put it back together again – and now, three years later, it's nearly over and I'm proud of what we've done: make an already great book, I think, even better.

Introduction

Welcome perplexity

If you think you have a solution to the problem of consciousness you haven't understood the problem. That's not strictly true, of course. You may either be a genius and have found a real solution, or be sufficiently clear-sighted to understand why there was no problem in the first place. More likely, however, is that you are falling into a number of tempting traps that help you evade the real issues.

The American philosopher Thomas Nagel once observed that 'Certain forms of perplexity – for example, about freedom, knowledge, and the meaning of life – seem to me to embody more insight than any of the supposed solutions to those problems' (1986, p. 4). This may be equally true of the problem of consciousness. Indeed the puzzlement can be part of the pleasure, as philosopher Colin McGinn points out: 'the more we struggle the more tightly we feel trapped in perplexity. I am grateful for all that thrashing and wriggling' (1999, p. xiii).

If you want to think about consciousness, confusion is necessary: mind-boggling, brain-hurting, *I can't bear to think about this stupid problem any more* confusion. For this reason a great deal of this book is aimed at increasing your perplexity rather than reducing it. So if you do not wish your brain to hurt (though of course strictly speaking brains cannot hurt because they do not have any pain receptors – and, come to think of it, if your toe, which does have pain receptors, hurts, is it really your toe that is hurting?), stop reading now and choose a more tractable problem to study.

Our motivation for wishing to stir up perplexity is not cruelty or cussedness, nor the misplaced conviction that long words and difficult arguments are signs of cleverness or academic worth. Indeed we think the reverse: that the more difficult a problem is, the more important it becomes to use the simplest words and sentences possible. So we will try to keep our arguments as clear and simple as we can while tackling what is, intrinsically, a very tricky problem.

Part of the problem is that 'consciousness' has no generally accepted definition in either science or philosophy despite many attempts to define it (Nunn,

2009). The word is common enough in everyday language, but is used in different ways. For example, 'conscious' is often contrasted with 'unconscious', and is taken as more or less equivalent to 'responsive' or 'awake'. 'Conscious' is also used to mean the equivalent of knowing something, or attending to or being aware of something, as in 'She wasn't conscious of the embarrassment she'd caused' or 'He wasn't conscious of the rat creeping up quietly under his desk'. Different theories emphasise different aspects of what we might mean by consciousness, but the term is most broadly used to mean the equivalent of 'subjectivity' or personal experience, and this is the sense in which it is used throughout this book.

Another problem is that consciousness studies is a relatively new and profoundly multidisciplinary subject. This means we can draw on a rich variety of ideas from neuroscience, philosophy, psychology, biology, and other fields, but it can also make life difficult because people from these different disciplines sometimes use the same words in completely different ways. Students of psychology are our primary audience in this book, but we have tried to cover all of the major approaches in consciousness studies, including psychology, philosophy, artificial intelligence, neuroscience, first- and second-person methods, as well as 'non-traditional' approaches centred on spirituality or 'altered states' of consciousness. We have also included excerpts from novels, stories, poems, films, and TV programmes to help you explore consciousness with the help of a wider range of great writers and thinkers. Our emphasis is on a science of consciousness based on empirical findings and testable theories, but there are many forms this science can take. Throughout the book we will be confronted by questions about how the nature of consciousness (its ontology) is related to the possibility of gaining knowledge about it (the epistemology) and the methods we choose to do so (the methodology). We have no easy answers, other than to keep reminding you (and ourselves) that there is no such thing as a neutral question or method. Even the ordinary language we use to think with pushes us in one direction or another from the very outset.

No single existing method of studying consciousness has all the answers. Because the brain is the most complicated organ in the human body, it is easy to

think that it must hold the answer to the mystery of consciousness. But when people have tried to fit consciousness neatly into the usual ways of doing brain science, they find they cannot do it. This suggests that somewhere along the line we are making a fundamental mistake or relying on some false assumptions. Rooting out one's prior assumptions is never easy and can be painful. But that is probably what we have to do if we are to think clearly about consciousness.

Profile 0.1 – Susan Blackmore (b 1951)

As a student in Oxford, reading physiology and psychology, Sue Blackmore had a dramatic out-of-body experience which convinced her that consciousness could leave the body and made her determined, against much sound advice, to study parapsychology. She learned to read Tarot cards, sat with mediums, and trained as a witch, but her 1979 PhD thesis contained only numerous failed experiments on extra-sensory perception and psychokinesis. Becoming ever more sceptical of paranormal claims, she turned to studying the experiences that foster paranormal belief, including near-death experiences, sleep paralysis, and dreams, eventually concluding that parapsychology is a red herring in any attempt to understand consciousness. Meditation proved far more helpful, and she has been practising Zen since the early 1980s. She carried out one of the first experiments on change blindness, and her books include the controversial bestseller *The Meme Machine* as well as books on OBEs, NDEs, meditation and consciousness. While at the University of the West of England in Bristol, she taught the consciousness course on which this book is based, but finally decided that the only way to learn more about consciousness was to give up the job and write this book. Since then she has been a freelance writer and lecturer and is now working (again) on out-of-body experiences, tremes (technological memes), and (unsuccessful) children's books. She plays in a samba band, loves painting, kayaking, and her garden, and is learning powerlifting. She is Visiting Professor in Psychology at the University of Plymouth.

The organisation of the book

This book is divided into six relatively independent sections containing three chapters each. Each section is designed to stand alone, for use as the topic for a

lecture, or several lectures, or to be read independently as an overview of the area. However, all of them depend on the ideas outlined in Section One, so if you choose to read only parts of the book, we would recommend starting with Section One, on the nature of the problem.

There is an accompanying website [here](#). This provides a complete list of references with weblinks where possible, suggested questions for class or self-assessment, and further information, demos, and audiovisual materials, as well as updates to the printed book. It also provides some suggestions of different ways you can navigate the book depending on your specific interests.

Each chapter contains not only a core text, but profiles of selected authors, explanations of key concepts, exercises to do on your own, and suggestions for activities and discussions that can be done in groups.

At the end of each chapter is a list of suggested readings with brief descriptions. The readings are chosen to be short and readily accessible and to give a quick way into each topic. They should also be suitable as set reading between lectures for those whose courses are built around the book. For each chapter we include at least one reading (highlighted in red) which offers multiple perspectives on a topic, whether through peer commentaries on a target article, a range of views on a question or concept, or case studies; these may be useful as the basis for seminar discussions.

Each chapter includes a few quotations from literary works highlighted in orange. Many of them come from famous writers, and you may know some of them already. We hope they will do two things: on the one hand, enrich your understanding of the often strange ideas about consciousness that we will be encountering; and on the other, enhance your appreciation of the authors and works we quote from by revealing the links between the ideas they have long been exploring and the problems that contemporary psychology, philosophy, and neuroscience are still battling with. Many originate in languages other than English, and we have provided the most faithful translations we could. This may also help you think about how different languages offer tools for thinking about consciousness.

We also provide shorter quotes in the margins, often repeated from the main text. Our advice is to learn those that appeal to you by heart. Rote learning seems hard if you are not in the habit, but it gets quickly easier with practice. Having quotations at your mental fingertips looks most impressive in essays and exams but, much more important, it provides a wonderful tool for thinking with. If you are walking along the road or lying in bed at night, wondering whether there really is a 'hard problem' or not, your thinking will go much better if you can bring instantly to mind Chalmers's definition of the problem, or the exact words of his major critics. Often a short sentence is all you need to get to the crux of an argument and criticise it: what assumptions underlie it, and what exactly does it help you to understand better?

Profile 0.2 – Emily Troscianko (b 1982)

Emily is Sue's daughter, and has many (mostly fond) childhood memories of Sue's strange explorations of the paranormal, alien abductions, and memes, as well as of morning meditation sessions together before school. Emily studied French and German as an undergraduate at Oxford, and stayed there to do a doctorate on the works of Franz Kafka. Asking the question 'Why is Kafka's writing so powerful?' led her to investigate theories of vision, imagination, and emotion, and to conduct her own experiments on how readers respond to different kinds of fictional texts. Having suffered from anorexia from age 16 to 26, she later began to connect her interest in mental health with her understanding of literary reading, starting to explore how fiction-reading might have effects on mental illness, and vice versa. Her current work is a mixture of cognitive-literary and medical-humanities research and various kinds of writing for audiences beyond academia. Like Sue, she seems to have had to give up having a job to write this book. When not writing, she can often be found driving her cow-spotted campervan around Britain, captaining her narrowboat along the Thames, or lifting heavy things (sometimes with Sue) in a powerlifting gym.

Putting in the practice

Consciousness is a topic like no other. Right now, this very minute, you are probably convinced that you are conscious – that you have your own private experience of the world – that you are personally aware of things going on around

you and of your own inner states and thoughts – that you are inhabiting your own private world of awareness – that there is something it is like to be you. This is what is meant by being conscious. Consciousness is our first-person view on the world.

In most of our science and other academic studies, we are concerned with third-person views – with things that can be verified by others and agreed upon (or not) by everyone. But what makes consciousness so interesting is that it cannot be agreed upon in this way. It seems private. It seems like something on the inside. I cannot know what it is like to be you. And you cannot know what it is like to be me.

So what is it like to be you? What are you conscious of now?

Well...? Take a look. Go on. Really. Take a look and try to answer the question ‘What am I conscious of now?’

Is there an answer? If there is an answer, you should be able to look and see. You should be able to tell someone else, or at least know for yourself, what you are conscious of now, and now, and now – what is ‘in’ your stream of consciousness. If there is no answer, then our confusion must be very deep indeed, for it certainly seems as though there must be an answer – that I really am conscious right now, and that I am conscious of some things and not others. If there is no answer then at the very least we ought to be able to understand why it feels as though there is.

So take a look and first decide whether there is an answer or not. Can you do this? You will probably decide that there is: that you really are conscious now, and that you are conscious of some things and not others – only it is a bit tricky to see exactly what this is like because it keeps on changing. Every time you look things have moved on. The sound of the hammering outside that you were conscious of a moment ago is still going on but has changed. A bird has just flitted past the window casting a brief shadow across the window sill. Oh, but does that count? By the time you asked the question ‘What am I conscious of now?’, the bird and its shadow had gone and were only memories. But you were conscious of the memories, weren’t you? So maybe this does count as ‘what I am conscious of now’ (or, rather, what I was conscious of then).

The morning was hot, and the exercise of reading left her mind contracting and expanding like the main-spring of a clock, and the small noises of midday, which one can ascribe to no definite cause, in a regular rhythm. It was all very real, very big, very impersonal, and after a moment or two she began to raise her first finger and to let it fall on the arm of her chair so as to bring back to herself some consciousness of her own existence. She was next overcome by the unspeakable queerness of the fact that she should be sitting in an arm-chair, in the morning, in the middle of the world. Who were the people moving in the house—moving things from one place to another? And life, what was that? It was only a light passing over the surface and vanishing, as in time she would vanish, though the furniture in the room would remain. Her dissolution became so complete that she could not raise her finger any more, and sat perfectly still, listening and looking always at the same spot. It became stranger and stranger. She was overcome with awe that things should exist at all... She forgot that she had any fingers to raise... The things that existed were so immense and so desolate... She continued to be conscious of these vast masses of substance for a long stretch of time, the clock still ticking in the midst of the universal silence.

(Virginia Woolf, *The Voyage Out*, 1915)

You will probably find that if you try to answer the first question, many more will pop up. You may find yourself asking ‘How long is “now”?’, ‘Was I conscious before I asked the question?’, ‘Who is asking the question?’, ‘What does it mean to “look” “inside”?’. Indeed, you may have been asking such questions for much of your life. Teenagers commonly ask themselves difficult questions like these and don’t find easy answers. Some go on to become scientists or philosophers or meditators, and pursue the questions in their own ways. Many just give up because they receive no encouragement, or because the task is too difficult. Nevertheless, these are precisely the kinds of questions that matter for studying consciousness. That is why each chapter includes a ‘practice’ task with a question to work on in between your reading.

Every question and every practice takes only one angle on the problem of consciousness. Some – including the one we started with here – may not be helpful for you. But we hope that cumulatively, day by day, they will help you. One of us,

Sue, has been asking questions like these many times a day for about thirty years, often for hours at a stretch. She has also taught courses on the psychology of consciousness for more than ten years, and encouraged her students to practise asking these questions. Over the years she has learned which ones work best, which are too difficult, in which order they can most easily be tackled, and how to help students who get into a muddle with them. And Emily has come to puzzle over consciousness from different starting points – from questions about how we experience fictional worlds to questions about what it means to be mentally healthy or ill. We encourage you to work hard, not just at the science but at your own personal practice, alone and together with others who are questioning too.

Getting the balance right

A lot of this book is about third-person views. You will learn about neuroscientific experiments, philosophical inquiries, and psychological theories. You will learn to be critical of theories of consciousness, and of the many ways of testing one against another. But underlying all of this is the first-person view which is what it's all about. Some scientists and philosophers try to connect the two; some create bridges between the first and the third person by thinking about the 'second person', or how 'my' experience is already shaped by other people. Still, the distinction between more theoretical and more personal ways of studying consciousness remains, and you must strike a balance between them.

That balance will be different for each of you. Some will enjoy the self-examination and find the science and philosophy hard. Others will lap up the science and find the personal inquiry troubling or trivial. However it is for you, remember that both are needed, and you must find your own balance between them. To those who object that self-questioning is a waste of time or even 'childish', we can only say this: since we are studying subjective experience we must have the courage to become familiar with subjective experience.

As you become acquainted with the growing literature of consciousness studies, and if you have managed to strike a balance between the work of observing

your own experience and the work of explaining it, you will begin to recognise those writers who have not. At one extreme are theorists who say they are talking about consciousness when they are not. They may sound terribly clever but you will soon recognise that they have never attended to their own experience. What they say simply misses the point. At the other extreme are those who waffle on about the meaning of inner worlds or the ineffable power of consciousness while falling into the most obvious of logical traps – traps that you will instantly identify and be able to avoid. Once you can spot these two types you will save a lot of time by not struggling with their writings. There is so much to read on the topic of consciousness that finding the right things to struggle with is quite an art. We hope this book will help you to find reading that is worthwhile for you, and to avoid the time-wasting junk. We cannot claim to have been completely impartial, but we have tried to be your sceptical guides through this difficult field, to help you find your own way through it.

Warning

Studying consciousness will change your life. At least, if you study it deeply and thoroughly it will. As the American philosopher Daniel Dennett says, ‘When we understand consciousness – when there is no more mystery – consciousness will be different’ (1991, p. 25). None of us can expect to thoroughly ‘understand consciousness’. It is still not even clear what that would mean. Nonetheless, we do know that when people really struggle with the topic, they find that their own experience, and their sense of self, change in the process.

‘The most beautiful thing we can experience is the mysterious. It is the source of all true art and science.’ (Einstein, 1930)

These changes can be uncomfortable. For example, you may find that once-solid boundaries between the real and unreal, or the self and other, or humans and other animals or robots, or you right now and someone in a coma, begin to look less

solid. You may find that your own certainties – about the world out there, or ways of knowing about it – seem less certain. You may even find yourself beginning to doubt your own existence. Perhaps it helps to know that many people have had these doubts and confusions before you, and have survived.

The difficulties I have in talking to people, which others must find incredible, come from the fact that my thinking, or rather the content of my consciousness, is quite foggy, that as far as it concerns only myself I rest in it untroubled, sometimes even self-satisfied, but that human conversation requires pointedness, stability, and sustained coherence, things that do not exist in me. No one will want to lie in clouds of fog with me, and even if someone did, I cannot drive the fog out of my head; between two people it melts away and is nothing.

(Franz Kafka (1990), diary entry, 24 January 1915, our translation)

Indeed, many would say that life is easier and happier once you get rid of some of the false assumptions we so easily tend to pick up along the way. But that is for you to decide for yourself. If you get into difficulties we hope you will be able to find appropriate help and support, from peers, teachers, or other professionals. If you are teaching a course using this book, you should be prepared to offer – and seek out – that support yourself, or be able to advise students on how to find help when they need it.

Some of Sue's classes included a few students who held religious convictions or believed in God. They usually found that these beliefs were seriously challenged by the course. Some found this difficult, for example because of the role of faith in family ties and friendships, or because their beliefs gave them comfort in the face of suffering and death, or because religion provided a framework for thinking about self, consciousness, and morality in terms of a spirit or soul. So if you do have such beliefs you should expect to find yourself questioning them. It is not possible to study the nature of self and consciousness, while labelling God, the soul, the spirit, or life after death 'off limits'.

Every year she taught courses on consciousness Sue gave this same warning to students – both in person and in writing. Every year, sooner or later, one of them came to her saying ‘You never told me that...’. Happily most of the changes are, in the end, positive, and the students are glad to have been through them. Even so, we can only repeat our warning and hope that you will take it seriously. Studying consciousness will change your life. Have fun.

‘Warning – studying consciousness will change your life.’

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