IFL: Logicbite 0

Introducing *IFL*

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Welcome to a series of informal bite-sized introductory pieces on elementary formal logic!

I did think about putting together a set of video logic lectures, with lots of fancy slides. But that would be horribly time-consuming for me to do well. And on reflection, I frankly don't think it would be the best use of *your* time either, to be sitting in front of yet more online lectures. I'd *much* rather that you read a good introductory logic textbook. For a start, you can take a book at your own pace, and you can use it in various ways, whatever works best for you. A well-constructed book will also explore more, with more helpful detail, than can easily be squeezed into the usual lecture format. And anyway, you do need to get used to working from textbooks.

So no video lectures. Instead we are going to be reading a book together. There are some terrific introductory logic texts out there: for example, my namesake Nick Smith has written a very good one called *Logic: The Laws of Truth* for Princeton University Press. However, we're going to be looking at the second edition of my own *Introduction to Formal Logic*. This was published in 2020 by Cambridge University Press in their *Cambridge Introductions to Philosophy* series. But you can now get it as a *very* cheap print-on-demand book – or, if you can bear yet more screen-time, you can download it as a free PDF. More about the book and how to get it in a moment.

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I rather liked, however, the idea of recording some podcasts instead of video lectures. *IFL* (as I'll call it for short) is a longish book – well over 400 pages, with 42 chapters. OK, there's a lot of signposting as we go through. In particular, there are five Interludes where we take stock and I give roadmaps. But still, many readers might well appreciate a bit more signposting, a bit more highlighting of key ideas. So that's where podcasts could come into play, giving relaxed introductions to some main topics, which you could listen to over a coffee before tackling some chapters from the book.

But in formal logic, we very soon have to start juggling with symbols – and how can we do *that* in a podcast, without being able to use a blackboard or whatever? A bit of experimentation suggested that the audio format wasn't going to work very well (even if I included instructions like 'look at page 123'). So I'm going to compromise. Yes, we want something that is as relatively informal as a podcast, which is still relaxed, accessible, short and snappy compared with a full-blown video lecture. But we also want to be able to use some symbols, or state theorems which you might need to look at twice to understand; so we need something bite-sized but text-based. Call the compromise a 'logicbite'![1]

The plan then is to put together a series of brisk logicbites – which will each take no more than ten minutes of your time, often less – introducing chapters or small groups of chapters. I'll use them to give some orientation and to introduce some of the takeaway messages for the chapters. And rather than always summarize those messages by using my own words again, I'll often use extracts from other people's textbooks to help make the key points (another thing that wouldn't work so well in an audio format).

Suitably primed, you can then settle down to read the relevant chapters of *IFL* at your leisure. Ideally you'll also want to tackle some of the end-of-chapter exercises, just to test your understanding. None of the exercises are very tricksy, and you can check your answers against the

[1] With an admiring nod to that wonderful series of real podcasts philosophybites.com – whose backnumbers are a terrific resource for philosophy students to dip into.

pretty detailed online worked answers. And then it's onwards! – come back for another logicbite, and more chapters.

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But why bother? I said that *IFL* was published in a series of introductions to philosophy. Why should beginning philosophers *care* about learning some basic formal logic?

Well, you should certainly care about being a good reasoner, and you should care about understanding what makes for a reliable mode of argument. Learning some formal logic isn't the only way of improving your reasoning skills, but it will certainly help. And of course, major figures in the development of modern analytic philosophy have been deeply engaged with logical enquiry. I'm thinking, for a start, of key figures like Gottlob Frege, Bertrand Russell, Ludwig Wittgentstein and Frank Ramsey, and later W. V. O. Quine: if you don't understand much logic, you won't understand *them*.

But I don't want to just give you instrumental reasons for learning some logic. Don't do it just because it's good for you, or because you need it to understand some core twentieth century philosophy. Learn some logic because modern formal logic is a great intellectual achievement, the wonderful creation of mathematically minded philosophers and philosophically minded mathematicians. Ok, you are not going to get *very* far into the subject by working through my *Introduction to Formal Logic*. But we lay essential groundwork, and we do get to open the door onto a really rich and exciting field of enquiry. So, let's dive in!

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Before we do, though, just a word more about *IFL*. The original edition grew out of lecture notes for the course I gave for first year philosophers in Cambridge for many years. A lot of smart students, then; but, in an importantly relevant way, the audience was still pretty mixed. Some students had done a good deal of mathematics and could equally well have been admitted to the famously tough Cambridge maths course; other students coming from a humanities background verged on the symbol-phobic. I wrote the lecture notes with the second group of students really at the front of my mind, aiming for maximum accessibility. The mathematicians could look after themselves! That's why my book does go pretty slowly at the outset, and spends a lot of time motivating the whole idea of formalization. Some complained it starts *too* slowly, but you can't please everyone.

The second edition is significantly different from the first, in a number of respects which I'll explain later as we go through, and it is this second edition that you now want. But it still starts slowly. If you are coming from a more mathematical background, you'll probably want to take the initial chapters at some speed.

As I said, the new edition was initially published by CUP. But stuff happened. Covid-19 happened. And since students are having a really grim time, I thought the least I could do is to make my logic books more available (I do realize that this is a comically small contribution, but we do what we can!). I have now re-acquired the copyright of *IFL* in particular, and this means I can give it away as a free PDF download. Or if, like me, you much prefer to work from a physical book, you can get it at production cost as a very cheap print-on-demand paperback (under a third of the price of the previous CUP version).

For links and details, then, go to logicmatters.net/ifl. Get hold of the book one way or the other. And then come back for the next logicbite in the series, titled 'What is logic?'.