The Learning Curve

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Minimus is good for you

Many ringers don't like ringing on fewer than six bells. 80% of towers have at least six, and six is by far the most common (45%) followed closely by eight (30%). There is an understandable preference for having more bells available. It increases the variety of what we can ring, it produces a more exciting sound, and it requires greater skill - or does it? Ringing on different numbers of bells requires slightly different skills, and ringing on low numbers has some definite advantages.

Skills

Towers differ of course, and many things affect the ease and pleasure of ringing - both the nature of the bells and how well they are maintained. It can be hard to compare the experience of ringing an easy going, well maintained eight, in an airy and cheerful ringing room at St Marys, with the neglected, lumpy old four at St Chads that has a long draught in a gloomy tower. So for simplicity let us assume that you are ringing a bell of the same weight, go and handling qualities, and that the only variable is the number of bells ringing with you. What is different?

The physical action of ringing the bell at the same speed would be the same if you rang cartwheel (closed handstrokes) but ringing with open leads (as most of us do) the timing difference between handstroke and backstroke becomes more pronounced as the number of bells reduces, see Table 1. So to ring accurately on four, you need to keep the backstroke in much closer than when ringing on six or eight.

Table 1: Effect of open handstroke

Bells	Back-hand / Hand-back	Percentage difference
8	9/8	12%
6	7/6	17%
4	5/4	25%

Ringing call changes too, the 'step size' needed to change places is bigger, so you need a more pronounced change in ringing action to make the transition accurately. Table 2 shows successive intervals, with the interval where the change is made underlined. As above, the proportional change is a bigger percentage of the smaller numbers.

Table 2: Effect on call changes

Bells	Move up	Move down
8	8-9-8-9-8-**1<u>0</u>**-8-9-8-9	8-9-8-9-8-**<u>8</u>**-8-9-8-9
6	6-7-6-7-6-**<u>8</u>**-6-7-6-7	6-7-6-7-6-**<u>6</u>**-6-7-6-7
4	4-5-4-5-4-**<u>6</u>**-4-5-4-5	4-5-4-5-4-**<u>4</u>**-4-5-4-5

As you might expect, ringing methods on small numbers exaggerates the movement needed for hunting and dodging too, but there is a qualitative change as well as a quantitative one. Very large changes of speed emphasise the fact that hunting is not really like continuous call changes - a sequence of steps - but more like gliding up or down a hill, ie ringing at different speeds over several successive blows.

Minimus for training

Ringing Minimus has two valuable training roles. The obvious benefits of starting to learn a method like Plain Bob with the four bell member of the family, are the much simpler line and the easier ropesight, but it still introduces all the key components. You don't have to ring only four bells in order to ring a four bell method though. In a six bell tower, you can ring changes on the front four, or the middle four, with the added stability of two static bells, and the familiarity of a six bell rhythm. Hunting (and dodging) to a six bell rhythm is physically less demanding, as we saw above.

The other benefit, and one that many people miss, relates directly to the fact that hunting and dodging to a four bell rhythm is more demanding. The larger speed changes needed make it almost impossible to 'get away with' last minute moves to follow the bell in front. You can only strike Minimus correctly by making deliberate speed changes **before** you arrive in the desired place for your next blow. Ringing to a four bell rhythm is therefore both an excellent exercise to help develop this habit, and a very good test of whether you have done so.

Methods

One thing that puts people off ringing on four is the perception that there are no methods worth ringing. Certainly there are fewer on four than there are on higher numbers, but since most people only ring a minute fraction of what is available anyway, that is hardly the main point. The CC Methods Collection lists eleven plain methods and four principles with a full 24 rows per course and three principles with 16 rows per course. It also lists a few short methods.

Quite a few of the methods are the reverse, or the double of one of the others, but that doesn't make them less worth ringing. Although on paper you can see that Reverse Bob is just like Plain Bob back to front (so it requires minimal learning) when you ring it, it feels quite different (which makes it challenging, and more worth doing). Double Bob feels completely different, and the blue line looks quite different on paper, but if you approach it in the right way, it is both easy to learn and more interesting to ring than you might think. (Work out the lines for yourself, or look back at Chapter 12 of *The Learning Curve: Volume 1.*)

Something for everyone

Even Surprise Major ringers can ring something familiar on four bells. Officially, there are no Surprise Minimus methods, but in practice, there are some interesting Surprise-like things. A popular one is 'Bristol Minimus'. Look at a lead of Bristol Major drawn out, as in Figure 1 (a). The Treble line is dotted, and the whole lead is divided into eight sections depending on whether the Treble is in the front four or the back four places.

The lines of 2, 3 and 4 never go above 4th place (apart from the change at the lead end, where 3 moves into 5th place). In fact the only blows struck below 4th place not by 2, 3, 4 or Treble, are the two bits shown with thick lines (parts of the 'lightning work') which intrude into the front half while the Treble is on the back.

If you take the front half of the diagram, and join the broken ends by inserting 4th places to join the Treble line to the two fragments of lightning work, you get Figure 1 (b), the longer version of 'Bristol Minimus' (96 rows). The only learning needed by frustrated Surprise Major ringers met very short for a service, is the non standard Treble line, see Figure 1 (c). The catch is that there are three blows in 4th place at the join, to switch between forward and backward hunting. Ringers of 2, 3 and 4 simply ring a silent and non conducted bob course of Bristol Major, as in Figure 1 (d). In fact there is a catch for them too if they slip into ringing 'on auto-pilot' - suddenly meeting the Treble on the front where you don't expect it can be alarming.

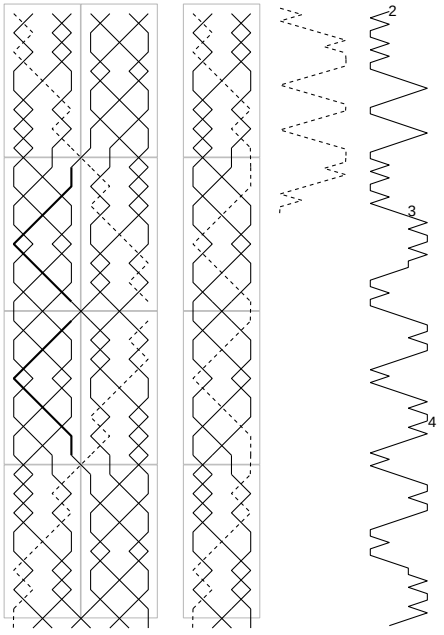

Figure 1: Bristol

If you prefer the Treble to do normal Treble Bob hunt, you can only use the upper and lower left hand sections of Figure 1 (a). Join them together with the Treble making 4th place at the join, and you get Figure 2 (a). Then joining up the lines of 2, 3 and 4 from this gives Figure 2 (b). It is 48 rows and a much simpler line to learn, but it does not look anything like Bristol. All the backward hunting was in the sections removed, so there are none of the transitions between forward and backward hunting that give the characteristic snaps, fish tails, whole turns and odd places.

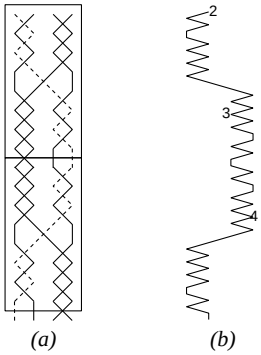

Figure 2: A shorter version

Tail End

The CC Methods Collection can be found at http://www.methods.org.uk

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