Conducting & coursing order - 1

In this third article on conducting, we look at coursing order - what is it, and how is it useful?

The basic concept

Draw the paths of each bell in a plain hunt - they follow each other from front to back to front in the same order. Look at the order the bells come to lead, 246531... (on six bells). They come on the back the same order (starting in a different place) 531246... Now look at Plain Bob, but omit the Treble - the order is the same (providing you count 5-6 dodges as something the bells do while changing over at the back, rather than as each bell going on the back twice). This order is the coursing order, and keeping it in mind while ringing gives you a very useful check on whether the ringing is still correct.

Conventionally, the order it is written with the Tenor last, but omitted, written down, so it is 5324 for Minor, 753246 for Major, 97532468 for Royal, etc. In compositions that don't change the coursing order of the back bells, they too are often omitted for simplicity. With 'Tenors together' in Major, (ie restricted to W, B, M, H) the coursing order is written as just 53246. While ringing, you work out the part of the coursing order that changes, and rely on knowing the order of the fixed bells.

Have you spotted the pattern in these numbers? Figure 1 shows how to get the coursing order from Rounds by counting from the Tenor, down the odds and up the evens.
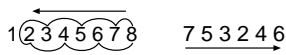

Figure 1: Coursing order from Rounds

Remembering the coursing order is easier, because it applies to the whole course, and you can use it at any stage to check whether the ringing is still correct. Compare that with trying to remember all the different lead ends (let alone the rows in between).

Calls

Calls alter the coursing order, but they do so in a simple way that you can work out in your head as you go along for the more commonly used calling positions. Three bells are affected by calls (they all move at a bob, but only two move at a single). Figure 2 (left) shows the three bells affected at every possible calling position.
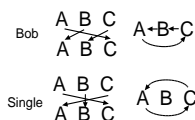

Figure 2: Effect of calls at different positions

The right hand part of Figure 2 shows two ways to represent how the three bells are affected by the calls. A bob transforms ABC into BCA, and a single transforms ABC to CBA. For example, a bob W changes 753246 into 732546

B and C, making 'short moves' in the transformation, are the bells running out and running in. A, jumping backwards, is the one making 4ths, at both bob and single. C, jumping forwards at a single, is the bell making thirds. B, unaffected in the middle by a single, makes 2nds.

Figure 3 shows the commonest calls: Wrong (Tenor dodging 7-8 up in Major), Home (Tenor in 7-8 down) and Middle (Tenor in 5-6 down).

Figure 3: Effect of bob at W, H and M

'Before' is the other common calling position - the Tenor runs out and the 7th runs in (it is common because it keeps them together). Figure 2 shows that the bob affects 678. Involving the Tenor complicates things. Figure 4 shows the full coursing order (a), rearranged (because it is cyclic) to show the affected bells together (b). The arrows show the effect of the standard BCA transformation, which produces the new coursing order (c), which is then re-arranged in the conventional order (d) with respect to the Tenor. The overall effect is as shown at (e).

Figure 4: The workings of a Before

Calls that split the Tenors are often used in groups that as a pair bring the Tenors back together. For example in Major: I , V = 2H and V , IV = 3B. Check these by combining the transformations in Figure 2 and then re-arranging with respect to the Tenor.

Using coursing order

Having learnt all this, what justifies using up some of your concentration to keep track of the coursing order during a touch. There must be a pretty good payoff - otherwise, no one would bother - and indeed there is. If you know the coursing order you can:

• Check whether the ringing is still correct
• Help other ringers who go wrong
• Help yourself work out where to put the calls

Plain Bob is the easiest, because the coursing order is visible throughout, whereas in some other methods it is less visible. To check the coursing order from the Tenor, start from when you are at the back or the front, and check the order in which you pass the other bells (excluding the Treble). If you are ringing a fixed back bell (eg 7th in a Tenors together touch of Major) it is almost as easy, because apart from passing the Tenor at the end (whereas the Tenor passes the 7th at the beginning) you pass the other bells in the same order as the Tenor does.

Ringing a bell that is affected by the touch, you will meet the Tenor at different places in the sequence, so to check the coursing order with respect to the Tenor (which is the conventional way to express it) you need to add an extra step. As you hunt up and down, notice where you pass the Tenor. Then start checking off the other bells as you pass them, and keep doing so after you have turned round at the back or the front, until you meet the Tenor again. Figure 5 illustrates this. You are ringing the 5th (the thick dotted line) and about to lead at the top of the diagram. The Treble (T) is the thin dotted line, and the Tenor is the thick solid line.

After leading, you pass 2 and 4 before meeting the Tenor. You then discount the 7th (assuming a Tenors together composition) and start counting the bells as you pass them 3, 6, (ignore Treble). Then you are at the back, so count yourself, 5, and continue counting 2, 4, until you meet the Tenor. Putting this together, the coursing order is 3 6 5 2 4. To save yourself a few seconds, you could have remembered the '2 4' from when you met them before the Tenor and then added them after your own bell when you got to the back.
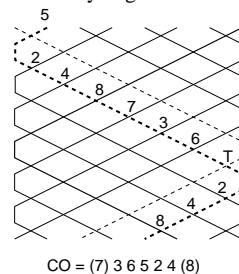

CO = (7) 3 6 5 2 4 (8)

Figure 5: Checking from an affected bell

Correcting slips

Super conductors seem to know what everyone is doing all the time. Ordinary mortals have to work it out, and there are two ways to do this. One relies on your knowledge of the method structure immediately around you and the other relies on knowing how the coursing order relates what different bells are doing.

Plain Bob has a simple structure, and only varies from hunting at the lead ends, where for example you would know that the bell you meet in 3-4 is supposed to dodge with you, and would be able to give advice if it did not. Using the coursing order you can extend this knowledge to bells that are not dodging with you.

> Someone will always go wrong on the back when the conductor is at the front, and vice versa.
> (Murphy's law applied to conducting)

For example, suppose that you are ringing the Tenor in Figure 6 and you see confusion at the back. Who do you tell to do what? You know that the 7th is below you making seconds, and that you are dodging with the 3rd in 3-4, but how do you know who is supposed to be doing what on he back? The coursing order is 36524.
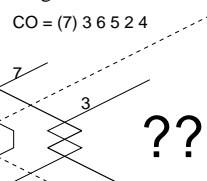
CO = (7) 3 6 5 2 4

Figure 6: What are the other bells are doing?

Figure 7 shows how to work it out, counting right from the 3rd or left from the Tenor. Adjacent bells in the coursing order dodge in adjacent positions. If you are not sure about this, write it out and check for yourself.
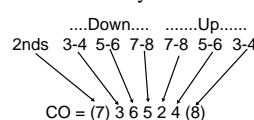

....Down.... ....Up......
2nds 3-4 5-6 7-8 7-8 5-6 3-4

CO = (7) 3 6 5 2 4 (8)

Figure 7: Working out who does what

Next month we will look at other ways to use the coursing order, and also at how it works for methods other than Plain Bob

Tail End