Supplementary materials for ‘Intonational variation in the North-West of England: The origins of a rising contour in Liverpool’.

Table 1: Realisation of pre-nuclear pitch accents in **Liverpool**. Percentages rounded to 2 decimal places.

| Contour Label | MQ | IQ | WHQ | CQ |
|---------------|----|----|-----|----|
| High H* | 30.38 | 79 | 32.84 | 44 |
| Fall H*+L | 6.15 | 16 | 5.22 | 7 |
| Fall-rise H*+LH | 0.00 | 0 | 0.00 | 0 |
| Low L* | 21.54 | 56 | 17.91 | 24 |
| Rise L*+H | 41.92 | 109 | 44.03 | 59 |
| Rise-fall L*+HL | 0.00 | 0 | 0.00 | 0 |
| Totals | 100.00 | 260 | 100.00 | 134 |

Table 2: Realisation of pre-nuclear pitch accents in **Manchester**. Percentages rounded to 2 decimal places.

| Contour Label | MQ | IQ | WHQ | CQ |
|---------------|----|----|-----|----|
| High H* | 33.66 | 69 | 40.00 | 42 |
| Fall H*+L | 55.12 | 113 | 37.14 | 39 |
| Fall-rise H*+LH | 0.00 | 0 | 0.00 | 0 |
| Low L* | 10.73 | 22 | 20.00 | 21 |
| Rise L*+H | 0.00 | 0 | 0.00 | 0 |
| Rise-fall L*+HL | 0.00 | 0 | 0.00 | 0 |
| Totals | 100.00 | 205 | 100.00 | 105 |
Table 3: Realisation of nuclear pitch accents and following material in **Liverpool**. Percentages rounded to 2 decimal places.

| Contour    | Label               | D | %  | n  | MQ | %  | n  | IQ | %  | n  | WHQ | %  | n  | CQ | %  | n  |
|------------|---------------------|---|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|
| HRT        | H* H-!H%            | 0.00 | 0  | 1.53 | 2  | 1.65 | 2  | 0.00 | 0  | 0.00 | 0  |
| High       | H* H-H%             | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Late fall  | H* H-L%             | 0.00 | 0  | 0.00 | 0  | 2.48 | 3  | 0.75 | 1  | 0.00 | 0  |
| HRT        | H* L-!H%            | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Fall-rise  | H* L-H%             | 1.92 | 5  | 5.34 | 7  | 7.44 | 9  | 3.01 | 4  | 3.85 | 5  |
| Fall       | H* L-L%             | 3.08 | 8  | 2.29 | 3  | 0.83 | 1  | 3.01 | 4  | 2.31 | 3  |
| HRT        | L* H-!H%            | 0.00 | 0  | 6.11 | 8  | 1.65 | 2  | 0.00 | 0  | 0.00 | 0  |
| Step/ Rise-plateau | L* H-H% | 13.46 | 35 | 9.92 | 13 | 7.44 | 9  | 4.51 | 6  | 8.46 | 11 |
| Rise-plateau-slump | L* H-L% | 16.92 | 44 | 45.80 | 60 | 44.63 | 54 | 16.54 | 22 | 10.00 | 13 |
| HRT        | L* L-!H%            | 0.00 | 0  | 0.76 | 1  | 0.83 | 1  | 0.00 | 0  | 0.00 | 0  |
| Rise       | L* L-H%             | 64.23 | 167 | 27.48 | 36 | 31.40 | 38 | 72.18 | 96 | 73.85 | 96 |
| Low        | L* L-L%             | 0.38 | 1  | 0.76 | 1  | 1.65 | 2  | 0.00 | 0  | 1.54 | 2  |
| Totals     |                     | 100 | 260 | 100 | 131 | 100 | 121 | 100 | 133 | 100 | 130 |

Table 4: Realisation of nuclear pitch accents and following material in **Manchester**. Percentages rounded to 2 decimal places.

| Contour    | Label               | D | %  | n  | MQ | %  | n  | IQ | %  | n  | WHQ | %  | n  | CQ | %  | n  |
|------------|---------------------|---|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|
| HRT        | H* H-!H%            | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| High       | H* H-H%             | 0.51 | 1  | 0.00 | 0  | 0.00 | 0  | 0.97 | 1  | 0.99 | 1  |
| Late fall  | H* H-L%             | 8.12 | 16 | 3.77 | 4  | 1.02 | 1  | 7.77 | 8  | 1.98 | 2  |
| HRT        | H* L-!H%            | 0.00 | 0  | 0.94 | 1  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Fall-rise  | H* L-H%             | 8.12 | 16 | 28.30 | 30 | 36.73 | 36 | 13.59 | 14 | 9.90 | 10 |
| Fall       | H* L-L%             | 62.44 | 123 | 35.85 | 38 | 46.94 | 46 | 55.34 | 57 | 49.50 | 50 |
| HRT        | L* H-!H%            | 1.52 | 3  | 18.87 | 20 | 4.08 | 4  | 0.00 | 0  | 0.99 | 1  |
| Step/ Rise-plateau | L* H-H% | 0.00 | 0  | 0.94 | 1  | 1.02 | 1  | 0.00 | 0  | 8.91 | 9  |
| Rise-plateau-slump | L* H-L% | 5.58 | 11 | 2.83 | 3  | 0.00 | 0  | 11.65 | 12 | 7.92 | 8  |
| HRT        | L* L-!H%            | 1.52 | 3  | 2.83 | 3  | 2.04 | 2  | 0.00 | 0  | 0.00 | 0  |
| Rise       | L* L-H%             | 8.12 | 16 | 3.77 | 4  | 7.14 | 7  | 10.68 | 11 | 11.88 | 12 |
| Low        | L* L-L%             | 4.06 | 8  | 1.89 | 2  | 1.02 | 1  | 0.00 | 0  | 7.92 | 8  |
| Totals     |                     | 100 | 197 | 100 | 106 | 100 | 98  | 100 | 103 | 100 | 101 |
Table 5: Realisation of pre-nuclear pitch accents in **Liverpool females**. Percentages rounded to 2 decimal places.

| Countour | Label | D  | MQ | IQ  | WHQ | CQ |
|----------|-------|----|----|-----|-----|----|
|          | %     | n  |    | %   | n   |    |
| High     | H*    | 27.87 | 34 | 34.92 | 22 | 30.51 | 18 | 52.38 | 33 | 18.75 | 12 |
| Fall     | H*+L | 0.82 | 1  | 3.17 | 2  | 1.69 | 1  | 9.52 | 6  | 0.00 | 0  |
| Fall-rise| H*+LH| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Low      | L*    | 22.13 | 27 | 17.46 | 11 | 25.42 | 15 | 9.52 | 6  | 28.13 | 18 |
| Rise     | L*+H | 49.18 | 60 | 44.44 | 28 | 42.37 | 25 | 28.57 | 18 | 53.13 | 34 |
| Rise-fall| L*+HL| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Totals   |      | 100.00 | 122 | 100.00 | 63 | 100.00 | 59 | 100.00 | 63 | 100.00 | 64 |

Table 6: Realisation of pre-nuclear pitch accents in **Liverpool males**. Percentages rounded to 2 decimal places.

| Countour | Label | D  | MQ | IQ  | WHQ | CQ |
|----------|-------|----|----|-----|-----|----|
|          | %     | n  |    | %   | n   |    |
| High     | H*    | 32.61 | 45 | 30.99 | 22 | 38.10 | 24 | 75.00 | 54 | 1.47 | 1  |
| Fall     | H*+L | 10.87 | 15 | 7.04 | 5  | 17.46 | 11 | 6.94 | 5  | 1.47 | 1  |
| Fall-rise| H*+LH| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Low      | L*    | 21.01 | 29 | 18.31 | 13 | 25.40 | 16 | 8.33 | 6  | 14.71 | 10 |
| Rise     | L*+H | 35.51 | 49 | 43.66 | 31 | 19.05 | 12 | 9.72 | 7  | 82.35 | 56 |
| Rise-fall| L*+HL| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Totals   |      | 100.00 | 138 | 100.00 | 71 | 100.00 | 63 | 100.00 | 72 | 100.00 | 68 |

Table 7: Realisation of pre-nuclear pitch accents in **Manchester females**. Percentages rounded to 2 decimal places.

| Countour | Label | D  | MQ | IQ  | WHQ | CQ |
|----------|-------|----|----|-----|-----|----|
|          | %     | n  |    | %   | n   |    |
| High     | H*    | 18.52 | 15 | 30.95 | 13 | 48.78 | 20 | 56.82 | 25 | 4.76 | 2  |
| Fall     | H*+L | 76.54 | 62 | 54.76 | 23 | 43.90 | 18 | 22.73 | 10 | 85.71 | 36 |
| Fall-rise| H*+LH| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Low      | L*    | 1.23 | 1  | 4.76 | 2  | 7.32 | 3  | 4.55 | 2  | 2.38 | 1  |
| Rise     | L*+H | 3.70 | 3  | 9.52 | 4  | 0.00 | 0  | 15.91 | 7  | 7.14 | 3  |
| Rise-fall| L*+HL| 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  |
| Totals   |      | 100.00 | 81 | 100.00 | 42 | 100.00 | 41 | 100.00 | 44 | 100.00 | 42 |
Table 8: Realisation of pre-nuclear pitch accents in **Manchester males**. Percentages rounded to 2 decimal places.

| Contour   | Label        | D  | MQ | IQ  | WHQ | CQ  |
|-----------|--------------|----|----|-----|-----|-----|
|           | %            | n  | %  | n   | %   | n   |
| High      | H*           | 43.55 | 54 | 46.03 | 29 | 56.90 | 33 | 48.44 | 31 | 8.20 | 5  |
| Fall      | H*+L         | 41.13 | 51 | 25.40 | 16 | 32.76 | 19 | 10.94 | 7  | 75.41 | 46 |
| Fall-rise | H*+LH       | 0.00  | 0  | 0.00  | 0  | 0.00  | 0  | 0.00  | 0  | 9.84  | 6  |
| Low       | L*           | 0.00  | 0  | 1.59  | 1  | 0.00  | 0  | 1.56  | 1  | 1.64  | 1  |
| Rise      | L*+H         | 15.32 | 19 | 26.98 | 17 | 10.34 | 6  | 39.06 | 25 | 1.64  | 1  |
| Rise-fall | L*+HL       | 0.00  | 0  | 0.00  | 0  | 0.00  | 0  | 3.28  | 2  | 0.00  | 0  |
| **Totals**|              | 100.00 | 124 | 100.00 | 63 | 100.00 | 58 | 100.00 | 64 | 100.00 | 61 |

Table 9: Realisation of nuclear pitch accents and following material in **Liverpool females**. Percentages rounded to 2 decimal places.

| Contour    | Label         | D  | MQ | IQ  | WHQ | CQ  |
|------------|---------------|----|----|-----|-----|-----|
|            | %             | n  | %  | n   | %   | n   |
| HRT        | H* H-!H%     | 0.00 | 0  | 1.61 | 1  | 3.39 | 2  | 0.00  | 0  | 0.00  | 0  |
| High       | H* H-H%      | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00  | 0  | 0.00  | 0  |
| Late fall  | H* H-L%      | 0.00 | 0  | 0.00 | 0  | 1.69 | 1  | 1.61  | 1  | 0.00  | 0  |
| HRT        | H* L-!H%     | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00  | 0  | 0.00  | 0  |
| Fall-rise  | H* L-H%      | 4.13 | 5  | 9.68 | 6  | 15.25 | 9  | 4.84  | 3  | 7.81  | 5  |
| Fall       | H* L-L%      | 5.79 | 7  | 3.23 | 2  | 0.00 | 0  | 4.84  | 3  | 4.69  | 3  |
| HRT        | L* H-!H%     | 0.00 | 0  | 12.90 | 8 | 3.39 | 2  | 0.00  | 0  | 0.00  | 0  |
| Step/ Rise-plateau | L* H-H% | 8.26 | 10 | 12.90 | 8 | 6.78 | 4  | 1.61  | 1  | 7.81  | 5  |
| Rise-plateau-slump | L* H-L% | 4.13 | 5  | 27.42 | 17 | 32.20 | 19 | 6.45  | 4  | 4.69  | 3  |
| HRT        | L* L-!H%     | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00  | 0  | 0.00  | 0  |
| Rise       | L* L-H%      | 77.69 | 94 | 32.26 | 20 | 37.29 | 22 | 80.65 | 50 | 75.00 | 48 |
| Low        | L* L-L%      | 0.00 | 0  | 0.00 | 0  | 0.00 | 0  | 0.00  | 0  | 0.00  | 0  |
| **Totals** |              | 100.00 | 121 | 100.00 | 62 | 100.00 | 59 | 100.00 | 62 | 100.00 | 64 |
Table 10: Realisation of nuclear pitch accents and following material in **Liverpool males**. Percentages rounded to 2 decimal places.

| Countour       | Label       | D % | MQ % | IQ % | WHQ % | CQ % |
|----------------|-------------|-----|------|------|-------|------|
| HRT            | H* H-!*H%   | 0.00| 0.00 | 0.00 | 0.00  | 0.00 |
| High           | H* H-H%     | 0.00| 0.00 | 0.00 | 0.00  | 0.00 |
| Late fall      | H* H-L%     | 0.00| 0.00 | 3.23 | 0.00  | 0.00 |
| HRT            | H* L-!*H%   | 0.00| 0.00 | 0.00 | 0.00  | 0.00 |
| Fall-rise      | H* L-H%     | 0.00| 1.45 | 0.00 | 1.41  | 0.00 |
| Fall           | H* L-L%     | 0.72| 1.45 | 1.61 | 1.41  | 1.00 |
| Step/ Rise-plateau | L* H-H%   | 17.99| 7.25 | 8.06 | 7.04  | 9.09 |
| Rise-plateau-slump | L* H-L%  | 28.06| 62.32| 56.45| 25.35 | 15.15|
| HRT            | L* L-!*H%   | 0.00| 0.00 | 0.00 | 0.00  | 0.00 |
| Rise           | L* L-H%     | 52.52| 23.19| 25.81| 64.79 | 72.73|
| Low            | L* L-L%     | 0.72| 1.45 | 3.23 | 0.00  | 3.03 |
| **Totals**     |             | 100 | 139  | 100  | 69    | 100  |

Table 11: Realisation of nuclear pitch accents and following material in **Manchester females**. Percentages rounded to 2 decimal places.

| Countour       | Label       | D % | MQ % | IQ % | WHQ % | CQ % |
|----------------|-------------|-----|------|------|-------|------|
| HRT            | H* H-!*H%   | 0.00| 0.00 | 0.00 | 0.00  | 0.00 |
| High           | H* H-H%     | 1.37| 0.00 | 0.00 | 0.00  | 0.00 |
| Late fall      | H* H-L%     | 1.37| 0.00 | 0.00 | 2.50  | 1.00 |
| HRT            | H* L-!*H%   | 0.00| 2.33 | 1.00 | 0.00  | 0.00 |
| Fall-rise      | H* L-H%     | 19.18| 32.56| 52.50| 21.00 | 17.50|
| Fall           | H* L-L%     | 57.53| 13.95| 27.50| 11.00 | 47.50|
| HRT            | L* H-!*H%   | 2.74| 2.79 | 12.00| 2.00  | 2.50 |
| Step/ Rise-plateau | L* H-H%   | 0.00| 0.00 | 0.00 | 0.00  | 7.50 |
| Rise-plateau-slump | L* H-L%  | 0.00| 6.98 | 3.00 | 5.00  | 2.00 |
| HRT            | L* L-!*H%   | 4.11| 3.00 | 5.00 | 0.00  | 0.00 |
| Rise           | L* L-H%     | 10.96| 4.65 | 7.50 | 3.12  | 22.50|
| Low            | L* L-L%     | 2.74| 4.65 | 2.50 | 0.00  | 2.50 |
| **Totals**     |             | 100 | 73   | 43   | 40    | 40   |
Table 12: Realisation of nuclear pitch accents and following material in **Manchester males**. Percentages rounded to 2 decimal places.

| Countour       | Label      | D   | MQ  | IQ   | WHQ  | CQ   |
|----------------|------------|-----|-----|------|------|------|
|                |            | %   | %   | %    | %    | %    |
| HRT            | H Start H F | 0.00| 0   | 0.00 | 0    | 0.00 | 0    |
| High           | H- H F     | 0.00| 0   | 0.00 | 0    | 1.59 | 1    |
| Late fall      | H Start H F| 12.10|15  | 6.35 | 4    | 1.72 | 1    |
| HRT            | H Start H F| 0.00| 0   | 0.00 | 0    | 0.00 | 0    |
| Fall-rise      | H Start H F| 1.61| 2   | 25.40| 16   | 25.86| 15   |
| Fall           | H Start H F| 65.32|81  | 50.79| 32   | 60.34| 35   |
| HRT            | L Start H F| 0.81| 1   | 12.70| 8    | 3.45 | 2    |
| Step/ Rise-plateau | L Start H F | 0.00| 0   | 1.59 | 1    | 1.72 | 1    |
| Rise-plateau-slump | L Start H F | 8.87| 11  | 0.00 | 0    | 15.87| 10   |
| HRT            | L Start H F| 0.00| 0   | 0.00 | 0    | 0.00 | 0    |
| Rise           | L Start H F| 6.45| 8   | 3.17 | 2    | 6.90 | 4    |
| Low            | L Start H F| 4.84| 6   | 0.00 | 0    | 0.00 | 0    |
| Totals         |            | 100 | 124 | 100  | 63   | 100  | 63   | 100  | 61   |