Lecture 10 – Human Abilities – Motor Processing
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Using Empirical Laws to Predict Performance and Justify Design
For each of the following examples and questions, justify your choice using your knowledge of the relevant empirical laws. Consider which laws are relevant, and how they might apply in this situation. In some cases, you may be able to justify more than one answer.

1. In PowerPoint, there is more than one menu button for ‘Format’ options: one on the ribbon in the application window, and one in the OSX menu bar that is always present at the top of the screen.

Which of the two ‘Format’ buttons is likely to be the faster target to hit on average? Justify your answer.

2. Compare the two following two docks from Mac OS X. In both, the dock appears when the user moves the mouse to the bottom of the screen, and remains present as long as the mouse is hovering over an icon in the dock.

(a) static dock

(b) magnifying dock – items under and around the mouse cursor expand.

Which would you predict to be faster/less error prone to use on average? Justify your answer.
3. The following example shows a screen shot from the Safari application on iOS 9. There are two ways to close a browser window in Safari. (a) select the ‘x’ at the top left corner of each window, and (b) swipe ‘left’ by dragging the window to the left of the screen, pushing it offscreen to close it (as shown at top of image).

Which do you think will be faster to use? Why?

4. Compare the following two menus designs. Which will be faster, on average? Justify.