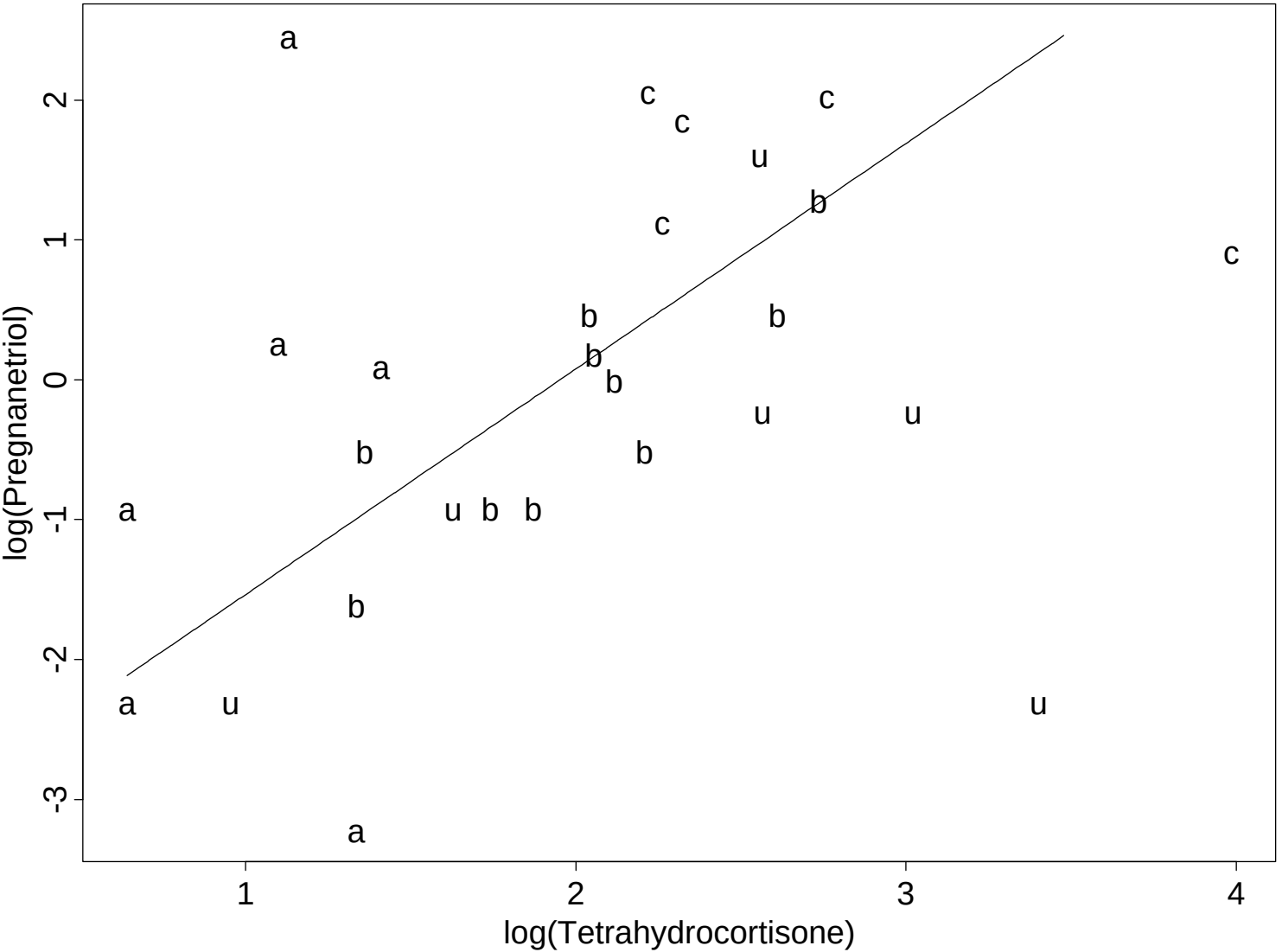LDA classification for ‘b vs not-b’