Identify and explain advantages of the use of the scientific method in psychology. (15 marks)

One advantage of the scientific method (SM) is control; this is due to the highly controlled nature of lab experiments which eliminates many confounding variables such as weather, light levels, noise etc. This control allows for the desired variables to be isolated, manipulated and measured without interference that makes the results null. An example of this is Asch (1955) who studied conformity in a lab setting – he was able to control how many people were confederates (giving deliberate wrong answers as told to by the experimenter) and in what order the naïve participant (the only true participant) was placed. This fine tuning allowed Asch to truly test the conditions in which conformity is present/most strong.

Another advantage of the SM is that it ensures internal validity, which means that the tool used is measuring the correct variable. This is important as in most of psychology there is no ‘thermometer’ (perfect tool) for measuring things such as personality – and so tools must be created to do so. Lab experiments try to use as many proven measures (e.g. cortisol/testosterone levels blood test) as possible to ensure this. An example of this is Gibson and Walk (1960) who created an ingenious tool to measure depth perception in infants, the tool was called the ‘visual cliff’ which was a glass box with one side consisting of a tiled surface far away from the top of the glass (deep side) and the other with the tiled surface close to the glass top (shallow). This measured the effect of depth perception as it looked like a sheer drop but in fact wasn’t.

Yet another advantage is increased funding, because the SM can provide solid proof via statistics. Whereas other methods have only anecdotal evidence such as that of case studies, the SM can acquire representative samples of people, data on an issue that affects them – which is then analysed to show any trends. An example of this Gardner and Gardner (1969), who conducted a primate study on a very important subject – is language exclusive to humans – this study would undoubtedly have cost much for the years of research – they used a case study, which would not normally be considered very scientific. But the scientific way in which the data was collected and analysed (double-blind procedure with independent observers used to confirm words) inspired confidence in the accuracy/reliability of the results.

A final advantage is that the scientific method is objective – meaning it does not allow for any confounding variables associated with researcher participation and is free of any bias regarding individual experience. An example of objective research is that of lab experiments such as Loftus and Palmer (1974) who showed participants a car crash on a screen and were asked various questions about it – the researchers did not collect the data themselves and analysed the data statistically and anonymously – leaving no room for bias.