

Candidate 1 evidence

Investigating how age affects conformity



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Introduction

The aim of this study was to measure conformity within different age ranges. Conformity is compliance with standards, rules or laws. We conform in society by changing our behaviour subconsciously in order to fit in with the people around you. The conformity type being studied was informational social influence which is where we accept the majority's point of view. People go along with the majority because in some cases they genuinely believe them to be right.

Compliance is the lowest level of conformity. Here a person changes their public behaviour, the way they act, but not their private beliefs. This is usually a short-term change and is often the result of normative social influence.

A laboratory experiment that is similar to this is Jenness 1932, this involved people completing an unambiguous task by going into groups and estimating how many white beans were in a jar. There were 811 in the jar and 101 people were asked to guess the jar. They were then given the chance to guess individually to see if they changed their answer. The average estimate before was 790 males and 925 female. Average estimate after was 695 for male and 878 for female. The change was 256 for male, and 382 for female. This suggests both males and females conform but the females are more conforming.

Mori and Arai conducted an experiment using the MORI technique, where participants wear filter glasses that allow them to watch the same film but see different things. This meant that everyone was a true participant, but one had been given a different type of filter glasses which meant that they perceived a different line to match the length of the target line. The materials were designed to be otherwise as similar as possible to the original Asch research, and there were 18 trials, 12 of which were 'critical trials'.

104 male and female participants were used in groups of four. Participants stated their answers out loud, with the minority participant going third.

For female participants, results were similar to those of Asch (1955), with conformity to the majority shown on 4.41 out of 12 critical trials (v's 3.44 in the original). However, it was found that the male participants did not conform to the majority view. There were also many mistakes by the majority, indicating that the task was harder than the original.

Both of these studies use students which makes it difficult to see the effect of age on conformity. A study that looks at age is Knoll et al (2017) which measured conformity in a number of age groups. They studied 590 applicants aged 8-59 in the UK and they found that all groups were found to conform. However the younger age group conformed more and that teenagers conformed more towards other teenagers than to adults. This could have been because adults have more brain maturity and so are less likely to conform than the younger people with less maturity.

The study aimed to look at how age affects conformity, previous research has found that the younger you are the more likely you are to conform and that when you are a teenager you are more likely to conform to other teenagers, but as a child you conform towards adults.

Therefore the experiment hypothesis was that the participants between the ages of 16-25 will be more likely to have similar low estimates of the number of sweets in a jar than the participants who are over the age of 40.

Method

Design

The study was a field experiment. This was chosen as it gave the experiment a higher ecological validity due to the situation being more life like. The situation is also more life like due to it not being to unusual of a situation due to this being a common game to be played at Christmas fairs. This means that the people doing the experiment will feel more relaxed while taking part leading to more reliable results unlike in a lab experiment which is artificial and may result in unnatural behaviour.

The independent variable was the age of participants, condition 1 participants age between 16-25 and condition 2 is participants age of 40+. The dependent variable was estimates of the number of sweets in a jar to measure conformity.

In order to minimise extraneous variables the following were controlled. They were all shown the same jar of sweets and for the same amount of time.

Materials

The materials were the consent forms, false estimate sheets, pen, jar of sweets, brief and debrief.

Sample

There were 8 people from each group of 16-25 and 40+. These were chosen using opportunity quota sampling so were people that we were able to find at the time to take part in the experiment. This was much easier to do and quicker than gaining volunteers and getting them to take part in a lab situation as the researcher had limited time. In the 40+ group participants were aged between 40-60 and in the 16-25 the participants were aged 17-21.

Procedure

Potential participants were approached and asked if they were willing to take part in the experiment. If they were willing, we explained the experiment with the briefing and they were given consent forms. Once they had read and signed the consent forms they were given the false estimate sheet and shown the jar of sweets then they gave their estimate. Once they had written their answer they were given the debrief which explained the true nature of the experiment. They were given the opportunity to withdraw or ask any questions that they have. They were thanked for taken part and then their consent forms were destroyed and they were referred to as numbers from then on. If they did want to withdraw they were told that it was completely fine and their results would be destroyed.

Ethics

They were deceived as they were given false estimate sheets. They were given a sheet with false estimates that were lower than the real number of sweets. They may have felt stupid for being influenced by the false estimate sheets causing them to not want to take part in the experiment any longer and not what there results to be used. Because of this the researcher gave them the chance to withdraw at any point and telling them this in the brief and debrief.

The participants were protected from harm by telling them that it is not an intelligence test so that they do not feel stupid. They were told that conformity is a perfectly normal thing and that everyone does it. If they thought to conform was unusual or the test was of intelligence as you could judge the sweets in the jar then they may feel embarrassed to have got it wrong or been influenced by the false estimates. To protect them they were kept anonymous as they did not have to sign their name with their estimate, and the consent form that they signed was destroyed so that their name was not kept and from that point each participant was referred to by number. They could also have withdrawn at any point during the experiment.

the participants privacy and confidentiality by destroying the consent forms after they had taken part in the experiment so that people could not find out what there results were. They may have not wanted there results to be shown due to them thinking that estimating the sweets in a jar is a base of intelligence and to conform shows lack of intelligence. This could have led them to be wanted to be kept anonymous after doing the experiment.

As we deceived the participants at the start we did not gain full informed consent, to deal with this we told them that they had the right to withdraw in the briefing and the debrief once we had deceived them. They may have felt that as they did not fully understand the experiment they no longer wanted to take part and so wanted their results to be taken out of the experiment or that they no longer wasted their name as a part of their results so they were referred to as numbers from then on.

RESULTS SECTION

Raw data table and calculations are in appendix

Summary table for 16-25 compared to 40+ for estimates for the number of sweets in a jar

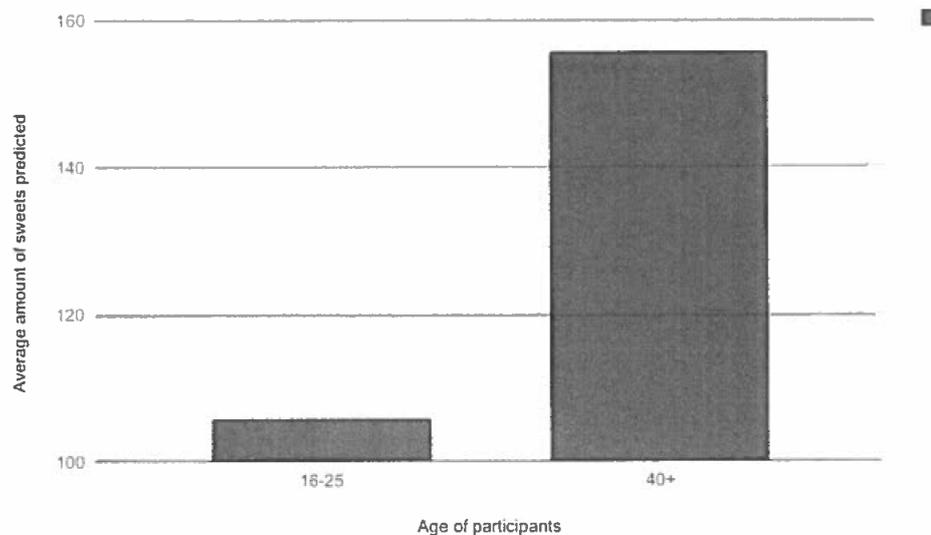
	mean	median	mode	range
false estimates	98	n/a	n/a	n/a
16-25	106	101	no mode	22
40+	156	165	no mode	100

Results

The results are summarised in the table below. The raw data and calculations can be found in appendix 8. The mean is used because it includes all the scores in the calculation which makes it the most useful as is the basis of other calculations such as standard deviation. However this can be affected by extremely high or low scores. This was shown with the 40+ where one result was much lower than the rest, e.g 100 compared to the next estimate which was 135. This made it necessary to use the median. The median removes any extreme outlying numbers which makes results more accurate. The range is used because a full spread of hw results and fuller understanding of the entire set of data.

A bar chart to show how age affected conformity

Bar chat to show age mean of sweets predicted



The results show that the mean estimate for 16-25 is 106 and for 40+ it is 156, this is shown in the graph and the result table. This shows that the results support the hypothesis as the younger people studied had closer results to the false estimate sheets given out. The hypothesis is also supported by the median as it shows that for 16-25 the result is much closer to the false estimate sheet proving that the 16-25 group was influenced by the false estimate sheet. The range also proves the hypothesis as 16-25 is much lower at 22 showing that there was less of a spread due to them sticking closer to the estimate sheet. 40+ has a range of 100 showing that they did not conform to the estimate sheet due to the higher variation in their estimates.

Discussion

Analysis

The results show that the mean estimate for 16-25 is 106 and for 40+ it is 156, this is shown in the graph and the result table. This shows that the results support the hypothesis as the younger people studied had closer results to the false estimate sheets given out.

The hypothesis was also supported by the median as it shows that for 16-25 the result was much closer to the false estimate sheet showing that the 16-25 group was influenced by the false estimate sheet. The range also proves the hypothesis as 16-25 is much lower at 22 showing that there was less of a spread due to them sticking closer to the estimate sheet. 40+ has a range of 100 showing that they did not conform to the estimate sheet due to the higher variation in their estimates.

The mean of the young participants aged 16-25 had a mean of 106 which is closer to the mean of false estimates of 98 than the mean of the 40+ is, which is 156 therefore this supports the hypothesis. This experiment did not have any unusual results so the data was not made less reliable from one result. This meant that the data was reliable and matched the hypothesis.

The median of the 16-25 age group was 101 and the median for the 40+ was 165 this shows that there was a large difference between the middle result of the groups. This was because of the younger group sticking closer to the false estimate sheet as they are more influenced by others as they have a higher conformity rate.

The range of the 16-25 was small at 22 and this is due to them conforming more so they stick closer to the false estimate sheets, whereas the 40+ results is much bigger at 100 because they are less likely to conform and so make their own choice and don't conform to the false estimate sheets.

The factor in the study Knoll et al(2017) was age, research previously has shown that brain maturity has an effect on conformity. They used 590 applicants aged 8-59 in the UK and they found all groups were influenced and showed conformity. This may have been from brain maturity as the younger age groups showed higher levels of conformity, this was why the experiment was done using different age ranges.

The Mori and Arai study found that many people conform in an unambiguous task, however much fewer than conformed in the Asch experiment which it was replicating. However it did find that the younger students they studied between the ages of 16-24 had higher levels of conformity. This validates my results as I found that there were higher levels of conformity in the age group of 16-25.

The Jenness study showed high levels of conformity in an unambiguous situation these are comparable to results of the experiment where high levels of conformity were found in the 16-25 age group. So the results from my experiment are validated by the Jenness study.

Evaluation

One strength of the study was that opportunity quota sampling was used and this was a strength as it made it easy to find participants and could be completed quickly. This saved time which was good as The researcher is very busy in 6th year. A problem of doing it in school the people were the same age meaning that this could lower the validity of the results as younger people are more conforming. As it was done in a school the participants may be immature and likely to mess around. This could lead to them giving false results in an attempt to be funny or to ruin the experiment. This decreases the validity of the results.

A weakness of the research method which was field, which meant there was no control over extraneous variables which could have affected the results from the study for example some of the participants were studied at break time where it was very noisy outside.

However a strength of this was that it had higher ecological validity than it would have had in a lab situation as it was in an everyday situation. This meant that the participant would feel more relaxed as they are in a comfortable situation making the results more reliable unlike previous research like Moro and Arai which was conducted in a lab.

A weakness of the experiment is that because the experiment was done at different times of day, the circadian rhythm would have affected the results. As people are smarter or more aware at different times throughout the day.

Conclusion

The mean of the young participants aged 16-25 had a mean of 106 which is closer to the mean of false estimates of 98 than the mean of the 40+ is, which is 156 therefore this supports the hypothesis. This experiment did not have any unusual results so the data was not made less reliable from one result. This meant that the data was reliable and matched the hypothesis.

References

Jenness, A. (1932). The role of discussion in changing opinion regarding matter of fact. Journal of abnormal and social psychology, 27, 279-296

Knoll, L. J. et al (2017). Age-related differences in social influence on risk perception depend on the direction of influence. Journal of adolescence 2017. Oct: 60, 53-63

Mori and Arai

Mori, K. And Arai, M. (2010). No need to fake it: reproduction of the Asch experiment without confederates. International Journal of Psychology, 45, 390-397

Appendices

16-25:

$98+110+100+120+113+99+101=$

40+

$140+100+170+165+200+180+135=$

Mean:

16-25= 106 (to 3s.f)

40+= 156 (to 3s.f)

Mode

16-25=No mode

40+=no mode

Median

16-25= 101

40+= 165

Range:

16-25= $120-98=22$

40+= $200-100=100$

Briefing sheet

The aim of this study is to measure how conformity is affected by gender in unambiguous tasks. I will ask you how many sweets are in the jar. This will take roughly 5 minutes of your time. This is not a test of intelligence and all your results will be kept confidential. You also have the right to withdraw from the test at any moment and once finished you can ask for your results to not be used and we will not record them down.

Consent form

Are you over 16 Yes/no

Do you understand what you are taking part in Yes/no

You understand that you have the right to withdraw. Yes/no

You understand that this is not a test of intelligence Yes/no

Debriefing form

Thank you for taking part in this study of conformity. My true aim was to find whether age effects conformity in an unambiguous task. My hypothesis was that girls are more likely to conform. Conformity is completely normal behaviour but if you do not want your results shown that is acceptable, however all results will be kept confidential. Do you have any further questions?

Standardised instructions

Tell them this is not an intelligence test

Hello, is it possible for me to take 5 minutes of your time for you to guess how many sweets there are in this jar? Here is a briefing sheet, take your time to read over it.
Can you please sign this consent form? Here is the estimates of previous participants, I will then show them the jar and give them time to make their guess. Here is the debriefing form, this was really a test of how age affects conformity in an unambiguous situation. Thank you for your time, do you have any further questions.

Raw Data

Appendix 1 - Raw data and calculations

IV Age range 16-25:

Participant number: IV Age range 1: 16-25

1	98
2	110
3	100
4	120
5	113
6	99
7	101

Mean = $(98+110+100+120+113+99+101)/7 = 741/7 = 105.85$

Median: 98, 99, 100, 101, 110, 113, 120

Mode: no mode

Range: $120-98=22$

IV2 Age range 40+:

Participant number:	IV2 Age range 2: 40+
8	140
9	100
10	170
11	165
12	200
13	180
14	135

Mean = $(140+100+170+165+200+180+135)/7 = 1090/7 = 155.7$

Median: 100, 135, 140, 165, 170, 180, 200

Mode: no mode

Range: $200-100=100$

Fake estimations used in experiment

Fake estimations that were already filled in on the results table to show conformity:

Participant number	Estimation
1	99
2	100
3	87
4	106
5	(real participants conformity)

Mean of fake estimations 98

