

## Essay 1 — Bias

*Discuss bias in the study of the role of Social Learning Theory on one health problem.*

Bias in research means that something in the way a study was designed or carried out causes the results to be misleading or one-sided. Social Learning Theory, developed by Bandura in 1977, says that people learn behaviour by watching others and copying what they do — especially when they see that the behaviour leads to some kind of reward. When it comes to drug abuse, this theory suggests that young people start using drugs because they see friends, family members, or people in the media using them and seeming to enjoy it or gain social status from it. This essay will look at how bias affects the research on Social Learning Theory and drug abuse, and whether that bias makes the theory less useful or simply more limited than it first appears.

The most well-known study supporting Social Learning Theory is Bandura's Bobo doll experiment from 1965. In this study, children watched an adult hit and kick an inflatable doll. When the children were later left alone with the doll, they copied the same aggressive behaviour — even though the adult was no longer there. This is used as evidence that people learn behaviour just by watching others, which is the core idea behind Social Learning Theory. The argument is that drug use could work the same way — a young person sees someone they admire using drugs and copies the behaviour. However, this study has a serious sampling bias. The participants were young American children, and the behaviour being studied was hitting a toy, which is very different from the complex social and emotional reasons behind drug use in teenagers and adults. Because the sample was so specific and the behaviour so different, it is hard to apply the results to drug abuse in general.

Not all research supports Social Learning Theory, and some studies directly challenge it. Charlton and colleagues carried out a study in 2002 on the island of Saint Helena, a small island where television had only just been introduced. They tracked children's behaviour for five years before and after television arrived, expecting to see an increase in aggression because children would now be exposed to violent models on screen. But the levels of aggression did not go up at all. This is important because it contradicts what Social Learning Theory would predict, and this study was done in a real-life setting rather than a laboratory, which makes the finding harder to dismiss. Another problem with the research in this area is something called publication bias. This means that studies which find a link between watching others and copying drug use are much more likely to get published than studies that find no link. Studies with no effect tend to stay in a drawer. This gives a false impression that the evidence for Social Learning Theory is stronger than it really is, because we are only seeing part of the picture.

There are also broader biases that run through almost all of the research in this area. Most of the major studies, including Bandura's work, were done in the United States with American participants. This is sometimes called WEIRD bias, which stands for Western, Educated, Industrialised, Rich, and Democratic. The problem is that these studies are then used to make general claims about human

behaviour everywhere, even though the role of role models, family influence, and the social meaning of drug use can be very different in other cultures. For example, in cultures where family bonds are very strong, family models may have far more influence on drug use than peer models, but most research does not test for this. There is also a gender bias in much of the research — early studies tended to use male participants or did not separate results by gender, even though boys and girls often start using substances for different reasons and through different social pathways. Finally, confirmation bias can affect how researchers design their studies in the first place. If a researcher already believes that Social Learning Theory explains drug use, they may set up a study in a way that is more likely to confirm this belief rather than test it fairly.

Overall, Social Learning Theory gives a useful starting point for understanding how drug use can spread through social groups, and there is real evidence that watching others can influence behaviour. However, the research base is affected by several types of bias — sampling bias, publication bias, cultural bias, gender bias, and confirmation bias — all of which make it difficult to fully trust the conclusions. This does not mean the theory is wrong, but it does mean that drug abuse cannot be explained by Social Learning Theory alone. Biological factors like genetic vulnerability to addiction, and psychological factors like stress and decision-making, also play an important role that the research in this area tends to underestimate.

## Essay 2 — Causality

*Discuss causality with regard to one or more environmental influences on one cognitive process.*

Causality means being able to say that one thing directly causes another to happen. In psychology, this is different from correlation, which just means that two things tend to happen at the same time without one necessarily causing the other. The best way to prove causality is through a controlled experiment, where the researcher changes one specific thing and measures whether that causes a change in the outcome. Memory — the process of taking in information, storing it, and being able to recall it later — is known to be affected by the environment around us, including where we are when we learn something, how stressed we feel, and what people say to us when we try to remember. This essay will discuss how well research has managed to prove that these environmental factors actually cause changes in memory, and where the evidence is stronger or weaker.

Some of the clearest evidence for a causal link between environment and memory comes from a study by Godden and Baddeley in 1975. They asked scuba divers to learn lists of words either on land or underwater, and then tested their memory either in the same place or in the opposite place. The divers who were tested in the same environment where they had learned the words remembered significantly more than those who were tested in a different place. Because this was a controlled experiment where only the environment was changed, we can say with confidence that the change in environment caused the difference in memory performance. This is called context-dependent memory. A similar study by Loftus and Palmer in 1974 showed that the words used in a question can cause people to misremember an event. Participants watched a film of a car crash and were then asked either how fast the car was going when it smashed into the other car, or when it hit the other car. Those who heard the word smashed estimated higher speeds and were more likely to wrongly remember seeing broken glass. Because only the word was changed, we can say it caused the difference in memory — this is a causal finding. However, both of these studies used artificial tasks like word lists and film clips rather than real memories, which raises the question of whether the same cause-and-effect relationship would hold in real life.

When we look at what happens in real-world situations rather than laboratories, the picture becomes more complicated. Yuille and Cutshall carried out a study in 1986 with people who had witnessed a real armed robbery in Vancouver. They interviewed the witnesses shortly after the event and again five months later. Despite the fact that the event was stressful, the witnesses had very accurate and stable memories both times, and they were not easily misled by trick questions. This challenges the findings of Loftus and Palmer, because it suggests that in real high-stress situations, memory may actually be more reliable than laboratory studies suggest. The problem is that this study cannot prove causality. There was no control group, the researchers could not control what else happened in the witnesses' lives between the interviews, and individual differences between people — such as their ability to handle stress — could explain the results just as well. This is the core tension in memory research: the studies that can prove causality are done in artificial settings, and the studies done in real settings cannot prove causality.

There is also a practical reason why causality is so hard to establish in this area. Researchers cannot ethically create the extreme conditions — serious stress, trauma, or fear — that occur in real life, because this would cause harm to participants. This means that laboratory experiments are always more moderate than real-life situations, and it is unclear whether findings from a moderate laboratory stress apply to extreme real-life stress. On top of this, in everyday life many environmental factors change at the same time — a person might be stressed, tired, in an unfamiliar place, and being asked leading questions all at once — so it becomes impossible to identify which specific factor is causing the memory effect. Individual differences between people also make it difficult, because the same environment can produce very different memory outcomes in different people depending on their personality, experience, and emotional state.

In conclusion, research has successfully shown that environmental factors can cause changes in memory under controlled laboratory conditions, and studies like Godden and Baddeley in 1975 and Loftus and Palmer in 1974 are strong examples of this. However, the evidence from real-life settings, such as the study by Yuille and Cutshall, suggests that the cause-and-effect relationships found in laboratories may not work in exactly the same way in the real world. The more carefully controlled a study is, the less it reflects real life, and the more realistic it is, the harder it becomes to identify a clear cause. This fundamental problem means that while we have good evidence that environment influences memory, proving exactly how and why it does so in everyday situations remains a challenge for the field.

## Essay 3 — Measurement

*Discuss measurement in the study of communication in human relationships.*

Measurement in psychology is about how researchers actually study and record the things they are interested in. A good measurement tool needs to be valid, meaning it actually measures what it is supposed to measure, and reliable, meaning it gives consistent results. Communication in relationships is particularly hard to measure because it includes so many different things — what people say, how they say it, body language, the way partners interpret each other's words, and the patterns that build up over time. This essay will argue that the way communication in relationships has been measured creates real problems for the conclusions researchers have drawn, mainly because the most common method — asking people to describe their own communication — does not always reflect what people actually do.

Most research on communication in relationships uses self-report, which means researchers ask people questions about how they communicate with their partner, either through questionnaires or interviews. Canary and Stafford carried out a study in 1994 using this approach and identified five communication strategies that help relationships stay healthy, including being positive, sharing personal thoughts, and doing things together socially. While the study produced clear results that could be compared across many couples, the measurement method has a significant weakness. When people are asked how they communicate with their partner, they are likely to give answers that make them look good rather than answers that are completely honest. This is called social desirability bias, and it means the data may reflect how people wish they communicated rather than how they actually do. Another problem is that questionnaires can only ask about the things the researchers already thought to include. They miss out on non-verbal communication, tone of voice, and the unconscious habits that couples develop over time, which may be just as important as the strategies that were measured.

Some researchers have tried to get around the limitations of self-report by using a different approach — giving participants a made-up scenario and asking how they would respond. Rusbult and colleagues used this method in 1991. They described situations where a romantic partner behaved badly and asked participants to choose how they would react — whether they would leave the relationship, stay quiet and let things get worse, stay loyal and hope things improved, or actively try to fix the problem. This approach meant the researchers could control exactly what situation was being described and compare responses across participants fairly. However, the key problem is that people often behave very differently in real situations compared to how they say they would behave in a hypothetical one. There is also the risk that participants chose the most socially acceptable answer rather than the most honest one. Bradbury and Fincham took a slightly different approach in 1992, looking at how married couples explained each other's behaviour — for example, whether they blamed their partner's personality or the circumstances for something that went wrong. They found that wives who tended to blame their partner's personality reported being less satisfied in the relationship overall. This is more grounded in real relationship patterns than a made-up scenario, but it still

relies on self-report, and people are not always aware of how they interpret their partner's behaviour.

A completely different approach to measurement is to use biological tools rather than asking people about themselves. Baumgartner and colleagues did this in 2008, measuring oxytocin levels and brain activity in people playing a trust game in a laboratory. They found that people who were given oxytocin continued to trust their partner in the game even after being let down. This kind of measurement is objective — it does not depend on what people say about themselves — and it cannot be affected by social desirability bias. However, the problem is that playing a trust game with a stranger in a laboratory is very different from the kind of communication that happens in a real long-term relationship. A couple who have been together for years bring shared memories, habits, and emotional history to every conversation, and none of that is present in a laboratory trust game. So while the biological measurement is more objective, it is measuring something quite different from what the research question is actually asking about.

In conclusion, measuring communication in relationships is difficult because every available approach comes with trade-offs. Self-report is the most commonly used method but is affected by social desirability bias and cannot capture non-verbal behaviour or unconscious patterns. Hypothetical scenarios give more control but may not predict how people actually behave. Biological measurement is more objective but takes place in artificial settings that bear little resemblance to real relationships. Because of these limitations, the conclusions drawn from research on communication in relationships should be treated carefully. The most promising direction for future research would be to combine different methods — for example, observing real couples talking, while also collecting self-report data and physiological measures — so that the weaknesses of one approach are balanced out by the strengths of another.