

3 paras + conc

RUNS CAR

18 Mark is training to be a health psychologist. He is currently studying causes of heroin addiction using addicts he treats as his participants.

In one case Mark noted that the person took heroin in specific places, such as in the kitchen but not in the bedroom. He noted that overdoses are caused when people take heroin in places they do not normally take it.

Mark asked another addict the reasons why they took heroin. On some occasions they were positive, such as getting high, and sometimes negative to take away pain.

He also observed that a lot of heroin addicts had friends who are addicted to heroin, and some of the heroin addicts said that they started taking heroin because someone they knew also took it.

Evaluate **one** learning explanation for heroin addiction in relation to Mark's case studies. *Positive + negative reinforcement*

You must make reference to the context in your answer.

X6A01 X6A03 X4A02
(16)

Operant conditioning, specifically positive and negative reinforcement, can be used to explain heroin addiction.

Positive reinforcement refers to a behaviour adding a desirable consequence which strengthens the behaviour.

This is shown in the ^{quantitative} data collected in Mark's case studies where an addict identifies the "positive" reason for taking heroin is that it allows them to "get high". This refers to the dopamine flooding the mesolimbic pathway (reward pathway) of the brain which produces intense feelings of euphoria - this is the desirable consequence which positively reinforces addicts to continue taking heroin. One strength of operant conditioning as an explanation for heroin addiction is ~~that~~ supporting evidence from Bozarth and Wise who put rats in a Skinner box and found that they continuously pressed a lever which administered morphine into their ~~system~~ body - the rats were positively reinforced to press the lever due to the "high" they experienced from the morphine.



~~However~~ Furthermore, the research takes a nomothetic approach as it makes general laws about human and animal behaviour thus increasing the scientific credibility of the research. However one weakness is that animals and humans are not the same. Humans have conscious thought and more complex thinking while animals are driven by their natural instincts - extrapolation of data is limited which makes the findings about rats' behaviour less generalisable to humans.

Negative reinforcement refers to strengthening a behaviour by removing an undesirable consequence. ~~Another participant~~ An addict in Mark's case study identifies the "negative" reason for taking heroin which is to "take away pain". Heroin, after ^{causing dopamine} flooding the mesolimbic pathway, also produces analgesic effects as well as euphoria. This relieves feelings of pain. Heroin addicts are negatively reinforced to take heroin as they are distracted from their pain. This can also be applied to ^{unpleasant} withdrawal symptoms e.g. nausea, headaches caused by stopping heroin use - addicts feel compelled to continue taking heroin to avoid the withdrawal symptoms. ~~Blume~~ One strength is supporting evidence from Blume who identifies that negative reinforcement is just as important as positive reinforcement as it predicts increased difficulties with substance abuse over a person's lifetime. One weakness is that operant conditioning takes the nurture side of the debate and doesn't



consider interaction between nature and nurture e.g. individuals with the A1 variant of the DRD2 gene are more vulnerable to being heroin addicts. Addiction is better explained by Rosenblatt's diathesis-stress model which considers how genes interact with the environment.

Mark observes that many heroin addicts had friends who are addicted to heroin and that they started taking heroin because their friends did. This links to the social learning theory for explanation of heroin addiction which states that individuals pay attention to a role model e.g. friends and retain the behaviour displayed e.g. heroin consumption. They reproduce the behaviour at a given opportunity e.g. at a party and are vicariously reinforced to repeat the behaviour after seeing friends be praised for taking heroin. This is a direct weakness of the operant conditioning explanation as it challenges the idea that addiction is caused solely by negative ^{and} positive reinforcement. Operant conditioning can explain maintenance of heroin use but can't explain the initial use, which social learning theory does. One strength of social learning theory is supporting evidence from Bandura's bobo doll experiment which showed children imitated aggression when exposed to ^{an} aggressive role model compared to non-aggressive model. This shows how individuals can take heroin after being exposed to a consumption model.



from their friends.

Overall, the ~~operant~~ knowledge about negative reinforcement has useful applications for psychology in society as it has led to development of treatments ~~in~~ like methadone which is an opiate substitution and deals with negative withdrawal symptoms of heroin. However one weakness is that the operant conditioning explanation is too reductionist. It simplifies complex behaviour like heroin consumption to positive and negative reinforcement. It doesn't consider the social context of taking the drug^{or} the availability of the drug.

(Total for Question 18 = 16 marks)

TOTAL FOR SECTION B OPTION 3 = 36 MARKS
TOTAL FOR PAPER = 90 MARKS



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