EVALUATION

Support for social learning explanations of smoking initiation

Many of the claims of social learning influences on the development of addictive behaviours have been supported by research evidence. For example, peer group influences have been found to be the primary influence for adolescents who experiment with smoking (DiBlasio and Benda, 1993). Those adolescents who smoked were more likely to 'hang out' with other adolescents who also smoked. Karcher and Finn (2005) found that youth whose parents smoked were 1.88 times more likely to take up smoking. If their siblings smoked, they were 2.64 times more likely to smoke, and if close friends smoked, they were up to 8 times more likely to smoke than if their parents, siblings and friends did not smoke.

Support for smoking and mood manipulation

Research evidence has supported the claim that negative mood experiences often increase nicotine craving and risk of relapse among those trying to quit smoking. For example, Shiffman and Waters (2004) found that sudden increases in negative mood states, rather than slow changes in stress levels, were associated with relapse. Even among individuals not trying to quit smoking, there is evidence that manipulations of negative affect can increase craving to smoke (Maude-Griffin and Tiffany, 1996). These findings support the negative reinforcement explanation because of the greater likelihood of smoking behaviour during the experience of negative mood.

Support for the role of cue reactivity

Wiers *et al.* (2013) provided support for the importance of classically conditioned cues in nicotine cravings. They compared a group of current heavy smokers, a group of ex-smokers who had been abstinent for at least five years and a group of individuals who had never smoked. They were asked to respond to pictures of smoking-related and neutral cues with either an 'approach' response or with an 'avoid' response. Craving scores were measured using a questionnaire of smoking urges. Heavy smokers showed a significant approach bias toward smoking-related cues compared to the other two groups. The extent of this bias was positively correlated with their craving scores. This was not the case for ex-smokers or non-smokers, confirming that smoking cues are present in heavy smokers and play a significant role in nicotine addiction.

Gender differences in patterns of nicotine addiction

A limitation of current learning theory explanations of nicotine addiction is that they fail to acknowledge the fact that it follows a different pattern in men and women, according to López *et al.* (1994). They found that women start smoking later than men, and that there are gender-related differences in relation to both the development and context of smoking behaviour. Other research has shown that women are more likely than men to light up in stressful situations and their nicotine dependence grows more rapidly (Baewert *et al.*, 2014). Women also experience withdrawal effects sooner and have a harder time giving up the habit. Learning theory explanations of nicotine addiction generally fail to address these specific gender differences.

▲ Research has shown that women are more likely than men to light up in stressful situations and their nicotine dependence grows more rapidly.

Implications for treatment

Drummond *et al.* (1990) propose a treatment approach based on the idea that the cues associated with smoking or other forms of drug taking are an important factor in the maintenance of that habit. The proposed treatment, cue exposure therapy (CET), involves presenting the cues without the opportunity to engage in the smoking behaviour. This leads to a phenomenon known as stimulus discrimination, as without the reinforcement provided by the actual nicotine, the association between the cue and smoking is extinguished, thereby reducing the craving for cigarettes that arises when exposed to that particular cue. Unrod *et al.* (2014) demonstrated the effectiveness of this approach in a study of 76 moderately dependent smokers, with CET resulting in a progressive decline in cue-provoked craving within six sessions of treatment.

UPGRADE

Question 2 below asks you to give two *criticisms* of the learning theory of nicotine addiction. There are a number of things to bear in mind when answering questions like this:

1. The term 'criticism' does not necessarily imply something negative about the theory – it can also be something positive about it. For example, the theory has implications for the treatment of nicotine addiction, for example cue exposure therapy.
2. If the term 'limitation' had been used instead, then this would have prompted you to look at the negative aspects of the theory, for example that it ignores the different patterns of nicotine addiction in men and women.
3. To maximise your marks in these questions, you need to *elaborate* your answer. As we have said elsewhere in this book (e.g. page 75), there are lots of ways to do this. A straightforward one is to *identify* the criticism, *justify* the criticism by providing evidence that this is the case, and then *explain* why this is good or bad for the theory.

Using the evaluation on this page, have a go at constructing a 60 word critical point following the advice above. We've done one for you, so you can do a second one.

A strength of learning theory is that it has implications for treatment of nicotine addiction. Cue exposure therapy presents cues associated with smoking without the opportunity to smoke. Without the reinforcing effects of nicotine, the association between cue and smoking is extinguished. Unrod et al. demonstrated the effectiveness of CET resulting in a decline in cue-provoked craving within six sessions, supporting the claim that many aspects of nicotine addiction are learned.

KEY TERMS

Cue reactivity Objects and environments associated with a drug or behaviour become conditioned stimuli, so people experience greater craving and physiological arousal when exposed to the objects and environments associated with their addiction.

Learning theory Explanations (such as classical and operant conditioning) which explain behaviour in terms of learning rather than any inborn tendencies, physiological factors or cognitive reasoning.

CAN YOU? No. 11.5

1. Briefly explain the learning theory explanation of nicotine addiction. (4 marks)
2. Give **two** criticisms of the learning theory of nicotine addiction. (3 marks)
3. Outline the role of cue reactivity in nicotine addiction. (3 marks)
4. Outline and evaluate the learning theory explanation of nicotine addiction. (16 marks)