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I.  .........................................................................................................................1
  1.  .........................................................................................................................3
    a.  (Craving) .....................................................................................................4
    b.  .......................................................................................................................5
  2.  .........................................................................................................................7
II. ..............................................................................................................................8
  1.  .........................................................................................................................8
  2.  .........................................................................................................................10
    a.  ......................................................................................................................10
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III. ............................................................................................................................12
  1.  ......................................................................................................................13
  2.  ......................................................................................................................14
  3.  ......................................................................................................................17
    a.  ......................................................................................................................17
    b.  ......................................................................................................................18
(craving) (motivational states)

(abstinence)

(motivational states)

27, 20, 6, 1, 2, 3, 4, 5, 6, 7
I. 

1. 

...
4. °¥¸Á (Craving)

°¥¸Á (craving) ±ÊÈ× ± ÑÚÑÜ (motivational states), ±ÊÈ× ± ÑÚÑÜ (abstinence) ±ÊÈ× °¥¸Á 6. 1948 Wilker ±ÊÈ× ± ÑÚÑÜ (acute withdrawal period) ±ÊÈ× °¥¸Á (craving) ±ÊÈ× °¥¸Á (uncontrollable desire), ±ÊÈ× °¥¸Á (alcohol craving) ±ÊÈ× °¥¸Á °¥¸Á
(alcohol dependence syndrome) 

- classical conditioning theory: Pavlov's theory of classical conditioning is based on the concept that stimuli that are naturally associated with the onset of a response can come to elicit the response itself. This is known as the conditioned stimulus (CS), and the response that it elicits is known as the conditioned response (CR).

- Cognitive mechanism: Modern cognitive theories of addiction suggest that the decision to use drugs is influenced by cognitive factors, such as perceived benefits and risks, social influences, and the personal reinforcing value of drugs. These theories emphasize the role of cognitive processes in shaping drug use behavior.
higher cognitive process)

(outcome expectancy model)

(environmental cues)
2. 2 2
II. 1.

1. 1. 1.
DSM-IV에 의하면, 정신건강 문제는 다음과 같은 경우들로 나눌 수 있다.

1. 정신적 기호
2. 정신적 증상
3. 정신적 상태
4. 정신적 질환

DSM-IV는 정신건강 문제를 다음과 같은 분야로 나누었다.

1. 정신건강 문제
2. 정신적 기후
3. 정신적 증상
4. 정신적 상태
5. 정신적 질환

이러한 분야들은 정신건강 문제를 다양하게 설명하고 있다.

정신건강 문제는 다양한 원인들이 있으며, 이 중 일부는 다음과 같다.

1. 정신적 기호
2. 정신적 증상
3. 정신적 상태
4. 정신적 질환

이러한 원인들은 정신건강 문제를 설명하는데 중요하다.
2. 2.

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27° C ± 1° C. 30° C ± 5° C. 45° ± 5°

3.3 Mega Pixels. SONY Cyber-shot DSC-F505V ± 10° ± 11°

18X25cm ± ±．
2, 3, 4, 5, 6]. 2, 3, 4, 5, 6]. 2, 3, 4, 5, 6]. 2, 3, 4, 5, 6].

III. - 12 -
1. 

60

2. 

<table>
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<th>(n=20)</th>
<th>(n=20)</th>
<th>F/\chi^2</th>
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<tr>
<td>9</td>
<td>13</td>
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<tr>
<td>19.2(2.7)</td>
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<tr>
<td>39.562</td>
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<td>16</td>
<td>0</td>
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<tr>
<td>4</td>
<td>20</td>
<td>19</td>
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\chi^2 (Chi-square) .
2. 

(\chi^2=7.033, \ df=2, \ p=0.030) (\chi^2=39.562, \ df=2, \ p=0.000)。

3. 

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<td>83</td>
<td>II : 49</td>
<td>(83)</td>
<td>(49)</td>
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<td>3</td>
<td>101</td>
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<td></td>
<td>(101)</td>
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'の表を以下に示します。
| 4. | Mean Rank |
|---|---|---|---|---|---|---|
|   |    |    |    |    |    |    |
| 1 | 19.4 | 36.9 | 35.3 | 21.23 | 2 | 0.000 |
| 2 | 22.5 | 34.5 | 34.5 | 18.05 | 2 | 0.000 |
| 3 | 22.1 | 33.5 | 36.0 | 15.91 | 2 | 0.000 |
| 4 | 23.9 | 33.1 | 34.5 | 12.56 | 2 | 0.002 |
| 5 | 22.1 | 32.3 | 37.1 | 11.78 | 2 | 0.003 |
| 6 | 35.1 | 17.1 | 39.3 | 21.15 | 2 | 0.000 |
| 7 | 33.6 | 21.0 | 37.0 | 12.83 | 2 | 0.002 |
| 8 | 38.9 | 22.5 | 30.2 | 10.58 | 2 | 0.005 |
| 9 | 40.5 | 30.7 | 20.3 | 17.03 | 2 | 0.000 |
| 10 | 39.1 | 31.1 | 21.4 | 14.78 | 2 | 0.001 |
| 11 | 30.9 | 37.8 | 22.8 | 11.64 | 2 | 0.003 |
| 12 | 32.7 | 34.3 | 24.6 | 6.89 | 2 | 0.032 |

*Kruskal-Wallis* test.
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1. 1. 1. 1. 1. 1. 1. 1.

- 17 -
IV. ""
(primitive drive state) (fundamental motivation) (Outcome Expectancy Model) (Conditioned Stimuli) (Unconditioned Response) (Conditioned Response) (Conditioned Motivational State) 16. """. """
(Motivation) (Emotion)
(nucleus accumbens), (Basal Ganglia), (Amygdala), (subcortex), (cortex), (subcortex).


17,18,19. Schneider 22. 10. 20,21,22,23. hippocampus).
(Outcome Expectancy Model) 24. 21. 10. 7.4 22.

Schulze 24. 21. 10. 7.4 22.

(prefrontal cortex) 21. 10. 7.4 22.

(appetitive behavior) 21. 10. 7.4 22.

(anterior thalamus) 21. 10. 7.4 22.

(reflex) 21. 10. 7.4 22.
(Motive)

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\[ \text{2100} \]
Childress  27

V.  2

- 24 -


18. Grant S, London ED, Newlin DB, Villemagne VL, Liu X,


24. Schulze D, Jones BT. The effects of alcohol cues and an alcohol priming dose on a multi-factorial measure of subjective cue-reactivity


Abstract

Development of the Alcohol-related Visual Stimuli Inducing Alcohol Craving

Choong Heon Lee

Department of Medicine

The Graduate School, Yonsei University

(Directed by Professor Man Hong Lee)

Craving is the subjectively experienced motivational states inducing ongoing drug use in addicts. It also proceeds or precipitates relapse episode in drug addicts. Alcohol craving may be triggered by exposure to an object, environment, or emotion that a person has come to associate with alcohol consumption. Such stimuli are called alcohol-related cues and alcohol-related visual stimuli are simple and reliable method in inducing alcohol craving.

The object of this study is to develop alcohol-related visual stimuli which induce alcohol craving reliably and to investigate the characteristics of alcohol-related visual stimuli in alcoholics.

First, the author developed 27 alcohol and drinking color photos as candidate stimuli. Then, 3 photos which induce alcohol craving most were chosen as alcohol-related visual stimuli respectively by alcoholics,
alcoholism high risk group and normal control group. The author compared characteristics, situation and complexity of selected alcohol-related visual stimuli among 3 groups.

' A glass of Soju', 'drinking together' and 'a glass of beer, a bottle of beer, a sidedish' are chosen as alcohol-related visual stimuli by alcoholics, alcoholism high risk group and normal control group respectively. Alcohol photo(object) induce craving most in alcoholics in contrast with drinking photo(situation) in social drinkers. Alcoholics cling to alcohol per se, not to atmosphere or situation of drinking, and social drinkers felt craving by expectation of drinking situation. Normal control group showed no consistent finding in choosing alcohol-related visual stimuli.

According to these results, the author suggests classical conditioning as psychopathological model of alcohol craving with alcoholics. In contrast with alcoholics, alcohol craving of social drinkers may be related to alcohol specific memory or positive expectancies about alcohol use. These finding may support differential neurobiological mechanism of alcohol craving between alcoholics and social drinkers.

**Key Words**: alcoholism, alcohol craving, alcohol-related visual stimuli