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**BISTABLE PERCEPTION MODULATED BY  
CONDITIONED FEAR FOR INVISIBLE STIMULI**

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**Background:** Previously, we showed that perceptual awareness during bistable perception is affected by fear conditioning (Kim, Lee, Kang & Kim, 2010). Specifically, a visual interpretation associated with an aversive electrical stimulation (CS+) tended to predominate over another visual interpretation not associated with stimulation (CS-) for observers who showed heart rate modulation during conditioning. In the current study, we went further to investigate whether such changes in bistable perception can also be caused by invisibly conditioned fear. **Methods:** The current study consists of 1) pre-conditioning bistability test 2) unconscious fear conditioning, and 3) post-conditioning bistability test. During the pre- and post-conditioning bistability test, observers tracked their perceptual experiences for man-rat and duck-rabbit ambiguous figures. During unconscious fear conditioning, two unambiguous variants of the man-rat figure were used as conditioned stimuli (CS) and presented to the suppressed eye during continuous flash suppression (CFS, Tsuchiya & Koch, 2005). One of the two variant images (CS+) was paired with electrical stimulation on a finger (US) while the other image (CS-) was not. Observers' heart rate was monitored during unconscious fear conditioning. **Results:** We found that CS+ predominated over the other CS- even after unconscious fear conditioning. Such change was found in observers who showed heart rate difference to CS+ and CS- and who also showed high state-anxiety scores (n=10). **Conclusion:** Visual awareness during bistable perception is influenced by invisibly conditioned fear, especially in highly anxious observers. This research is supported by Ministry of Culture, Sports and Tourism(MCST) and Korea Creative Content Agency(KOCCA) in the Culture Technology(CT) Research & Development Program 2011