

The Difference Between Sport Rituals, OCD Rituals, and Daily Routines: The Possible Adaptive Value of Seemingly Unnecessary Acts

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Abstract

Repetitive behaviors are common in daily life, constituting a seemingly non-functional component, manifested in excess in sport or compulsive rituals. The similarities and differences among various types of repetitive behavior remain unclear. Here we analyzed a daily task (donning a shirt, performed by 10 healthy volunteers, 3 tasks each) and a sport task (basketball free-throw, performed by 10 NBA players, 10 tasks each) by means of The Observer behavioral coding and analysis software, and found that both comprised pragmatic acts performed by all subjects, and idiosyncratic acts performed by some of the subjects. About half of the idiosyncratic acts were 'personal', for being typical to one individual but varying among individuals. In addition, in both tasks the pragmatic component of the task ('body') was preceded by an idiosyncratic component ('head') and was also followed by an idiosyncratic component ('tail'). We suggest that the seemingly nonfunctional acts have an adaptive value, with the 'head' serving as a preparatory phase and the 'tail' serving as a confirmatory phase. In sport rituals with definite end and high stakes, the head was long and the tail absent. In everyday tasks, the head and tail were relatively short, whereas OCD rituals featured a relatively long tail. These comparisons revealed that compulsive pathologic rituals share the same structural components with daily tasks but not with sport rituals, suggesting that normal and pathologic rituals could develop on different grounds. Focusing on form and structure, we distinguish between daily motor routines, sport and pathologic rituals. Further research is required to uncover the underlying mechanisms of these repetitive motor behaviors.

Ethical statement

This study was approved by the Institutional Helsinki Committee for Human Experimentation at Tel Aviv University.