

THE SOCIAL PSYCHOLOGICAL EFFECTS
OF TEA CONSUMPTION ON STRESS

EXECUTIVE SUMMARY

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INTRODUCTION

In the present study, we aimed to measure and better understand how effective tea might be for inducing calm during an episode of anxiety; and beyond this, to explore how the social psychological ritual of tea-making mediates stress.

PREVIOUS RESEARCH

Tea consumption is often associated with relaxation and positive mood states as has been demonstrated empirically over recent decades (Steptoe & Wardle, 1999; French & Booth, 1994). This intuitive finding has been linked to the psychopharmacological properties of tea; in particular the effect of Theanine – an amino acid present almost exclusively in the tea plant – on alpha brain-wave activity, known to induce a calmer, yet more alert, state of mind. Tea has also been found to aid in stress recovery (Steptoe et al, 2007) and have a protective function in relation to reduced rates of coronary heart disease and stroke (Ruxton, 2009; Keli et al. 1996; Hertog, et al. 1993).

Research by Williams and colleagues (2008) suggests that the positive effects of tea on feelings and behaviors of interpersonal warmth and trustworthiness of others are linked to its physical warming effects (Williams et al, 2008). That is, these authors argue that holding a warm cup of tea positively effects impressions of and pro-social behaviour toward other people (Williams et al, 2008). In their study, Williams et al (2008) found that those who held a warm cup of tea perceived those around them more positively, that is, as possessing a warmer personality, being more generous and caring.

METHODOLOGY

In the present study 42 participants were measured for anxiety before and after a stress-inducing task. Half the group was given tea before the second measure of stress or anxiety ('Tea Group'), while the remaining half ('Non-Tea Group') were given a glass of water. The time intervals between the first measure of anxiety, the stress-inducing test and the second measure of anxiety were the same for both groups.

In the task the participants (21 Male & 21 Female) undertook pre-test Spielberger (1983) State-Trait Anxiety Inventory for Adults (STAIA) and post-test STAIA (State measure only). The anxiety inducing intervention was a timed administration of the d2 Test of Attention. In this timed test, participants were asked to indicate if a 'd' symbol should be struck out if it had either two marks above, two marks below or one mark above and below the symbol 'd' there are also interspersed 'p's with and without marks above and below, making the test quite difficult under time pressure.

Focus groups and further qualitative testing was conducted after the experiment to measure the emotive significance and impact of making tea for participants. Participants were also asked to describe in general terms what tea meant to them, what it made them feel, and why.

RESULTS

Although both groups showed no significant difference in anxiety prior to the stress-inducing task, the results of the experimental study were significant and marked. The group consuming only water after the stress-inducing task showed a 25% increase in anxiety levels at the conclusion of the experiment, while, despite the stressful task, the group consuming tea showed a decrease in anxiety levels. This was both lower than that of the Non-Tea Group, and most interestingly, 4% lower than the stress level at which the group started. This is to say, tea not only assuaged anxiety naturally heightened by the task but that its effect was conducive to lowering the group's anxiety below its initial base-line, making participants more relaxed than they were prior to the stress-inducing activity. See figure below.

Focus groups conducted with participants after the experiment confirmed that the ritual of making and consuming tea does make an important contribution to the overall effect of mediating stress.

Participants reported feeling more relaxed when having tea, tending to frame their explanations in terms synonymous with a sense of 'partition' which provided an 'end' to or 'break' from the preceding period of anxiety. In the words of one, the tea created a "chill-out moment" which helped to "draw a line under" their stressful experience. Referring to experiences outside of the experiment, others reported a conscious and deliberate use of tea for similar reasons, as a coping mechanism to reduce stress, citing examples such as preparing for a job interview or helping them to relax after a stressful journey.

In a group context, the act of tea-making was associated with feelings of communality and solidarity amongst participants, who reported feeling "looked after" and "cared for" by having tea made for them. By contrast with the Non-Tea groups, who took their (water) refreshment in silence, the tea appeared to catalyse conversation, and helped build rapport both between the participant and tea-maker (research assistant) and amongst the wider group.

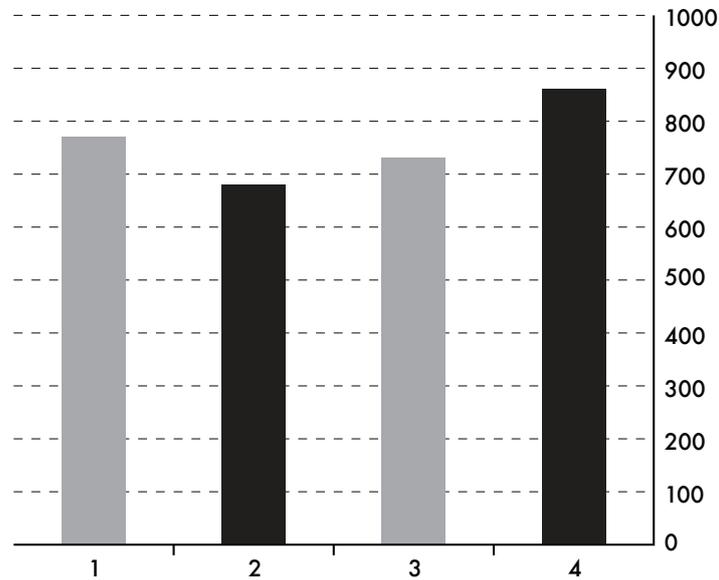
These findings are in line with de Beauvoir's (1972) assertions that the tea ritual is anchored in memories from the past and associated with feelings of communality and solidarity. Interestingly, an anthropological study into everyday life at an old people's day centre showed that making tea for others was regarded as a gesture of respect and amicability (Hazam, 1987). Hazam argued that the tea ritual signified bonding and support, giving residents a sense of order, familiarity and reflecting stability.

CONCLUSION

In summary, the present study shows that during periods of stress tea's reputation for inducing calm extends beyond the effects of its physical properties on our bodies and brains. The symbolic dimensions of tea (the values and meanings of making and consuming it) simultaneously perform a complex socio-psychological function. This function can be experienced both privately (as subjective moment of relaxation, reflection, closure etc) and/or socially (as an act of empathy, bonding or solidarity).

The symbolic dimensions of tea materialise in our body, thus enhancing the chemical effects that tea components have on our health. The cultural meanings in which tea is anchored shape our experience of tea, evoke particular feelings, ways of relating to others and mental states and by doing so they come to constitute our physical experience. This means that the psychological affects the physiological, just as the physiological affect the psychological. This is particularly true in Britain, where tea has such rich, multidimensional and longstanding cultural significance.

The findings of this experimental study, therefore, illustrate what most of our mothers would tell us, if you are upset or anxious, put the kettle on.



Key

- 1 = 764 State Anxiety Group 1 (Tea Group) Before Task
- 3 = 733 State Anxiety Group 1 (Tea Group) After Task - Tea Condition
- 2 = 689 State Anxiety Group 2 (Non-Tea Group) Before Task
- 4 = 861 State Anxiety Group 2 (Non-Tea Group) After Task - No Tea Condition

NOTE

The figure above shows that the non-tea group (labelled as 2 on the figure) at point one before the task was actually less anxious than the group who were to have tea (labelled as 1 on the figure). The difference between groups at point one (indicated by the numbers 1 & 2 on the graph) although visibly different was not statistically significant. Column 3 is the tea group after the task and column 4 is the non-tea group after the task. The difference between groups after the tea and water condition (columns 3 & 4) was statistically significant.

Ends

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