

THE ROLE OF SMOKING BEHAVIOUR IN PRODUCT DEVELOPMENT  
SOME OBSERVATIONS ON THE PSYCHOLOGICAL ASPECTS OF SMOKING BEHAVIOUR  
R.P. FERRIS

SUMMARY

OBJECTIVE:

To outline the functional significance which smoking has within the context of the smokers' negotiation of everyday life, placing particular emphasis on human performance, stress coping and the interactions of personality, arousal and behavioural smoking style.

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Smoking has suffered a history of attentions from sciences which have adopted very partial perspectives on the behaviour. A psychological interpretation of smoking takes a less fragmented perspective by considering the whole person, the whole cigarette, and the way smoking behaviour fits into the individual's repertoire of 'life skills'. A life skill may be defined as a particular personal performance attribute which contributes to an individual's effectiveness or well being. Typical life skills would be coping with stress; problem solving; social skills and similar behavioural situations.

The contention of this paper is that to understand smoking, just as any other behaviour, it is necessary to consider it as a process embedded within everyday life. Smoking is then seen as a personal tool used by the smoker to refine his behaviour and reactions to the world at large.

It is apparent that nicotine largely underpins these contributions through its role as a generator of central physiological arousal effects which express themselves as changes in human performance and psychological well-being.

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Evidence is considered illustrating that smoking may have a facilitating effect in areas such as:

- improved selective attention
- improved sustained vigilance
- efficient stress/coping strategy
- easing of social interaction.

Recent studies have shown that smokers placed in extreme conditions of relaxation or stress demonstrate an ability to use their smoking to adjust their personal level of arousal to cope with the situation. A corollary is that a smoker should be able to perform better on tasks undertaken in stressful or boring situations. An increasing literature provides evidence that this is so, smokers gaining measurable increments particularly in boring (low arousal) situations requiring sustained attention, reaction time performance, or vigilance.

The relationship of personality type to personal arousal requirement and hence to smoking is outlined in terms of the extraversion-introversion dimension. The predominance of extraverts in the smoking population is explained in terms of a higher central physiological requirement for arousal in such personalities (i.e. extraverts have lower basal arousal than introverts). The consequence of psycho-physiological differences between introverts and extraverts is discussed in terms of differing requirements from the product from these two groups, the extravert being seen to smoke in order to increase general arousal and responsivity, and the introvert being seen to smoke somewhat more for the visual and tactile aspects of the behaviour (hence an observed preponderance of introverts in the low tar segment, and the observation of increasing references to visual/tactile aspects of the product among such smokers). It is further hypothesised that smoking may perform the function of a discrete portable mild bio-stressor which can substitute for the function of physical exercise in social situations where such behaviour may be inappropriate.

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A model of smoking which seeks to unite hitherto disparate attempts to explain smoking in terms of a) behaviour and performance and b) social effectiveness and well being is outlined.

The model is based on the observed strong association between averting of eye gaze and cigarette lighting/puffing gestures. Eye gaze averting has always been associated with momentary social withdrawal or coping. Eye gaze averting has also been demonstrated in brain activity (EEG) terms, to be de-arousing in its effect. Thus the central hypothesis of the model is that the cigarette may offer the smoker a mechanism of social coping which is particularly advantageous relative to the non smoker, in the sense that the same factor which is operating at the social level as a means of withdrawal/coping may be, in the same act (lighting or puffing) providing the nicotine which will sustain internal physiological arousal.

In summary, the emerging psychological perspective on smoking makes the case for viewing it as a behavioural tool in everyday life, a means of tuning life skills such as problem solving, arousal/mood state control, social skills and stress management.

How we use this perspective in terms of marketing action requires careful consideration since most of this evidence is ostensibly of industry strategic defence value. However product development to optimise efficiency of nicotine delivery, and a better understanding of the 'visual-tactile' smoker (albeit a limited segment) are obvious starting points.

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# CONCLUSIONS

## COMPARISON OF CIGARETTES:

- Relative to duMLK, MEM showed a greater level of SPECIFIC biological activity under human smoking conditions.
- duMLK showed a higher level of TOTAL biological activity relative to MEM, under both sets of conditions.
- Relative to standard smoking conditions, duplicated human smoking profiles showed greater levels of both specific and total activity. However, the specific activity of MEM was affected to a greater extent by human smoking than was duMLK.

## INFLUENCE OF HUMAN SMOKING BEHAVIOUR:

- Changes in flowrates and puff volumes did not appear to affect specific biological activity.
- An INCREASE in puff interval (coupled with a DECREASE in the number of puffs) showed an increasing trend in specific biological activity.
- There appeared to be a combination effect of puff duration and interval on specific biological activity.

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