Smokers' representations of their own smoking: a Q-methodological study.

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SMOKERS' REPRESENTATIONS OF THEIR OWN SMOKING: A Q-METHODOLOGICAL STUDY

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Abstract

Little work has addressed how smokers represent their own smoking rather than smoking in general. Research has identified a huge number of variables that contribute to smoking, yet not much is known about how smokers 'make sense' of these and construct explanations of the factors that contribute to their own smoking. This study used Q-methodology to investigate smokers' own representations of their smoking behaviour. Concourse analysis produced 75 statements about smoking and these were used to generate the Q-grid. 36 adult smokers completed this grid and an accompanying response booklet. Analysis revealed four main factors: smoking as a social tool; the dual identity smoker; reactionary smoking, and smoking as a social event. An exploration of these factors suggests that smokers hold complex and diverse representations of their own smoking and construct explanations of it in different ways. We argue that an understanding of the diversity of smokers' representations and explanations of their own smoking could play a useful role in developing more effective targeted interventions.

Key words: smokers, own smoking, Q-methodology, representations

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Introduction

Smoking is a complex behaviour and, despite the detrimental health costs for the individual smoker, smokers derive many benefits from smoking and use it to fulfil various functions. Research has identified a plethora of influences that affect smoking recruitment, maintenance, cessation and relapse. Variables such as extraversion (White, Hill, & Hopper, 1996), low self-esteem (Cherry & Kiernan, 1976), and high self-esteem in girls (Mitchell & Amos, 1997), have been linked with smoking uptake. Arousal modulation models propose that smokers self-administer nicotine in order to maintain a preferred or optimal level of arousal, performance and mood. This is supported by evidence that nicotine tends to enhance aspects of cognitive performance (see Pritchard & Robinson, 1998, for review). It is unclear whether the observed beneficial effects of smoking are due to nicotine *per se*, or to the alleviation of withdrawal symptoms, or a combination of both. Nonetheless, it does seem clear that smokers do use cigarettes to modulate performance/feelings under certain circumstances and that this must have some role to play in habit maintenance.

Smokers smoke for different reasons in different circumstances and this may depend to a large extent on the smoker's motivations (e.g. Ho, 1989; West & Russell, 1985). Smoking is also used as a coping strategy and may fulfil important roles for the smoker (e.g. Graham, 1987; Revell, Warburton, & Wesnes, 1985). Graham (1994) interviewed working class women smokers and found that although they were well aware of the negative health consequences smoking provided them with highly valued 'time-out'. Indeed relapse among ex-smokers has been strongly associated with stress and negative affect (Schiffman, 1986), suggesting that many smokers may underestimate the costs of quitting which can include loss of not only a coping mechanism but also of a valuable support network of other smokers.

As evidence regarding the health risks has accumulated smoking has become less socially acceptable than in the past, though the degree of disapproval varies between countries. Rozin (1999) has discussed the moralisation of cigarette smoking in the U.S., the process through which smoking changed from an individual preference to a moral violation. This process is reflected in antismoking measures and legislation that would have been unthinkable even twenty years ago. In Britain smoking is a negatively evaluated behaviour at a macrosocial level and many barriers to smoking are in place in the broader social context (e.g. non-smoking workplaces). At a societal level disapproval may be an important barrier to smoking but more immediate social factors and peer pressure clearly play an important role in promoting and sustaining smoking at all stages. There is evidence that the identity of being a smoker is positively valued by young people (Lloyd, Lucas & Fernbach, 1997), and perceived parental and peer attitudes are linked to uptake (e.g. Charlton & Blair, 1995). Relapse is strongly associated with social situations, especially those involving alcohol (e.g. Schiffman, 1986), and smoking seems to be an important part of socialising for many smokers. Separate smoking areas and smoking restrictions may serve to strengthen bonds between smokers and forge a clear group identity. This is strongly supported by the work of Echebarria-Echabe, Fernandez-Guede, and Gonazles-Castro (1994) who experimentally explicated conflict between smokers and non-smokers and found that the representations of smoking held by smokers became more defensive, whereas those of non-smokers did not change. They suggest that

representations of smoking may function to defend identity among smokers, who can be considered to be a 'stigmatised group' in many European countries.

The accounts of smoking offered by researchers and health professionals differ in emphasis, but recognise that a wide range of physiological, cognitive and social factors contribute to all stages of the smoking habit. These explanations reflect expert theories and representations of smoking. Evidence of clear smoker stereotypes (e.g. Goldstein, 1991; Lee, 1989) also suggests that people share an everyday understanding of smoking, at least to some extent. However beliefs about smoking seem to be moderated by factors such as gender (e.g. Lucas & Lloyd, 1999), socio-economic status (Chamberlain & O'Neill, 1998), and ethnicity (Mermelstein, 1995). Research on social representations of smoking suggests an important role for these in underpinning smoking behaviour and attitudes. Adolescents have clear and distinct constructions of smoker and non-smoker identities (Lloyd, Lucas, & Fernbach, 1997). Positive prototypes of smokers have been found to predict smoking onset in adolescents (Gibbons, Helweg-Larsen, & Gerrard, 1996) and the similarity of between young peoples' self-image and their stereotypes of smokers seems to be particularly important (Aloise-Young, Hennigan, & Graham, 1996). Young people's representations of others' views of smoking may be an important factor in uptake; Thrush, Fife-Schaw, & Breakwell (1997) reported findings suggesting that young smokers have access to a different set of representations of other people's views of smoking than young non-smokers do. Gibbons and Eggleston (1996) have also shown that smoker prototypes predicted relapse after cessation, although the number of other smokers in a smoker's social network mediated this effect. Among adults representations of smoking seem to differentiate between regular, occasional and non-smokers (Echebarria-Echabe et al. 1994; Friestad, Rise & Roysamb, 1999). Moreover, these representations seem to have some role in moulding smoking-related attitudes: Friestad *et al*. (1999) found that representations of smoking held mediated the effect of smoking status on attitudes towards smoking restrictions.

This body of work has focused on beliefs about and representations of smoking in general. While it is clear that these representations are associated with smoking status there is often an assumption that smokers share a common understanding of smoking. Yet it seems unlikely that all smokers represent and understand smoking in the same way. Moreover, health-related behaviour and cognitions are not always congruent (e.g. Echebarria-Echabe & Fernandez-Castro, 1993). Little work has examined how smokers view their own smoking. Jenks (1994) reported that smokers considered their smoking to be primarily the result of psychological addiction and Eiser and Van der Pligt (1986) examined smokers' views of their own smoking in relation to quitting. However we are not aware of any work to date that has focused explicitly on smokers' explanations and understandings of their own current smoking behaviour, rather than smoking in general or smoking cessation. This research aimed to explore the ways in which smokers' theorise and explain their *own* smoking behaviour. Smoking is a behaviour fraught with contradictions: it fulfils important functions for the smoker, yet has serious detrimental health consequences; it is disapproved of by society at large, though it may be approved of in certain social groups and situations. We argue that it is important to explore the different ways in which smokers 'make sense' of their smoking and construct explanations of it.

Methodology

This study utilised Q-methodology in order to identify and explore diverse explanations of smoking as articulated by smokers themselves.. Participants rank a set of statements using a grid (e.g. ranging from -6 to 0 and from 0 to +6), which is designed to represent a quasi-normal distribution. Each participant is required to prioritise these statements in order that they fit into the Q grid. The completed Q grids are factor analysed, using Stephenson's (1935) re-working of Spearman's analysis, so that each Q grid is analysed in relation to each other grid. In conventional factor analysis individuals are measured on a number of variables and the intercorrelations between these variables are calculated. In Q, individuals themselves measure the stimuli (rank the items), and it is the intercorrelations between these, essentially subjective, measurements that are of interest. The factors derived from the analysis represent patterns in subjectivity: clusters of Q sorts made by participants who have ranked the items in essentially the same way. In short, people, rather than items, load onto the factors.

Rather than passively measuring pre-defined representations, Q allows the participants to actively operate upon the stimuli to construct their own story. It is both a quantitative and qualitative method: quantitative because it uses an inverted form of factor analysis to identify factors or patterns of describing the issue under investigation, and qualitative because it requires a qualitative interpretation (exegesis) of the factors. While the process is essentially subjective, as participants operate on the items from their own point of view (Brown, 1996), it is also constrained by the external understandings of the question (Stainton Rogers, 1995, p.180). Q-methodology has been extensively used in critical social psychology (e.g. Kitzinger 1987; Stainton Rogers, 1991) and has been used to investigate understandings of health (e.g. Stainton Rogers, 1991; Stowell-Smith & McKeown, 1999). The Q statements in this study were generated using (a) evidence from empirical research, and (b) 'everyday representations' based on focus group data, conversations and media sources.

Derivation of the Concourse

The preparation stage of a Q study is termed the derivation of the concourse: "Concourse is the common coinage of societies large and small, and is designed to cover everything from community gossip and public opinion to the esoteric discussions of scientists and philosophers" (Brown, n.d., p.6). Preliminary research was conducted through a review of the academic literature on smoking, a focus group, informal conversation, reflection on personal experience, and examination of a variety of media sources.

The focus group consisted of 6 adult smokers, (3 women and 3 men). The group was informed that the topic of interest was smoking behaviour, and was asked to freely discuss their experiences of smoking. A total of 209 statements were derived from the preliminary research, which were then systematically checked for duplication, comprehensibility and similarity. Eighty-two statements were retained for piloting. A sample of seven participants critically examined the pilot statements. As a result 12 statements were eliminated and 2 added, giving a total of 75 to be used in the main study.

Materials

Q-packs were generated and consisted of a participant details and consent form; procedural information about how to complete the Q study; a Q-grid; numbered statements; ranking numbers (-6 to +6); a response booklet; instructions on what should be returned, and a stamped addressed envelope.

Participants

Participants were drawn from a convenience sample of local smokers and informed consent was obtained. Thirty-six participants (20 women and 16 men) returned completed Q sorts. Participants ranged in age from 22 to 52 years, with a mean age of 28.6. Twenty-five participants were White British, 6 were White European (German, Greek and Irish), 3 were Black British, and 2 were British Asians. All participants spoke fluent English, regarded themselves as regular smokers, and had attempted to quit smoking at least once, with lengths of abstinence ranging from 1 day to 18 years.

Procedure

Q packs were distributed to participants by hand and by post, depending on where the participants lived. A date of collection for hand delivered packs was arranged at the time Sixty-one Q sets were distributed and thirty-six were returned.

Results

The data was analysed using PCQ, a package that calculates an inverted factor analysis and the factor rotations characteristic of Q methodology. These factors represent individuals who have responded in essentially the same way. In Q people, rather than items, load onto the factors and conventionally a factor loading of 0.45 is considered significant. REF NEEDED Four factors achieved an eigen value greater than 1 and were considered to be worthy of further exposition. Ideal Q grids have been generated for each of these factors to clearly illustrate the pattern of response characteristic of each (Figures 1-4). These factors are distinguished by the ranking of the items. Items placed at least 3 ranks part from their position on other factors are considered distinguishing items and these are highlighted with *.

Perhaps the most notable finding is the emergence of a duality in how own smoking is represented. Two of the factors emphasise positive effects of smoking and two highlight the negative aspects.

Factor A: Smoking as a Social Tool.

Eight participants loaded significantly onto factor A. Smoking behaviour is represented as being an important aspect of social interaction and Figure 1 illustrates the ideal grid for this factor. Four items particularly distinguished Factor A from the other factors and these items were placed at least 3 ranks apart from their rankings on the other factors.

'Special smoking areas make it easier for me to start conversations with strangers' (item 21, +6)

'I always feel relieved to find a fellow smoker in the company of strangers' (item 45, +6)

'No amount of no smoking signs will stop me when I want a cigarette' (item 20, -5)

'Cigarettes rule my life' (item 25, 0)

Figure 1 about here

This view of smoking draws upon the smoker's need for support, in the form of smoking, in social situations. This smoker also believes that smoking facilitates affiliation or bonding with others and smoking is seen as an important part of his or her identity. This is evident in the ranking of the following statements:

'Smoking makes me feel less nervous with people I don't know well' (item43, +6)

'Smoking is part of who I am' (item 42, +4)

These smokers also report the use of cigarettes as a modulator of affective/cognitive states.
'Smoking helps me concentrate' (item 14, +5)
'Smoking is an emotional crutch' (item 23, +5)
'I smoke most when I'm bored' (item 47, +5)

They do acknowledge that smoking is a problem and are aware of the health risks. They also strongly express the view that smoking is a matter of personal choice.
'Smoking is only a problem to non-smokers' (item 36, - 4)
I've smoked too long to make any difference to my health if I quit now' (item 33, - 4)
'Smoking is about free choice' (item 28, + 5)

These smokers show no confidence in their ability to quit smoking.
'I could quit just like that if I wanted' (item 58, - 6)
'I can go a whole day without smoking' (item 38, - 6)

Furthermore, they expect quitting to have negative consequences.
'If I tried to quit, I'd have to avoid other smokers for a while' (item 71, + 3)
'I get really depressed when I try quitting' (item 31, + 4)

Factor E: The dual identity smoker
Six participants loaded significantly on this factor, which emphasises negative aspects of smoking. The participants loading on this factor report incongruence between their smoking behaviour and their feelings about it; they have strong feelings of guilt about smoking and do not approve of the fact that they smoke. They do not feel in total control of their own smoking behaviour but nonetheless appear to accept full responsibility for it. This is illustrated by the ranking of the following items:

'Smoking makes you less attractive' (item 54, +6)*
'I'm sick of feeling guilty about smoking' (item 53, +6)
'Smoking is a mugs game' (item 63, +6)
'Cigarettes rule my life' (item 25, +5)

Figure 2 about here

These smokers believe that smoking is a problem and that their health would benefit from quitting. They believe there is more to smoking than addiction. There is also a strong indication that cigarettes are being utilised to modulate arousal.
'I've smoked too long to make any difference to my health if I quit now' (item 33, - 6)
'Smoking is only a problem to non-smokers' (item 36, -6)
'Smoking is an addiction to nicotine and nothing more' (item 49, -5)
'I smoke most when I'm bored' (item 47, +5)

The smokers represented by factor E express no personal affiliation to smoking and pleasure does not appear to be an important aspect of their smoking.
'I love smoking so why should I give it up' (item 10, -5)

However, as they report socialising with other smokers they may be smoking partly to retain or facilitate social or group identity.
'Most of the people I enjoy mixing with are smokers' (item 2, +3)

Although identity is not strongly evidenced in the above exposition, the written comments made by participant 24, a 44 year old man, (whose Q sort had the highest loading on this factor), suggested that identity is part of this explanation. In response to the statement 'I had two identities for a while when I took up smoking, a smoker with my mates and a non-smoker with my parents/family' this participant commented 'Still do' He also indicated that being 'a secret smoker from family' was restricting his family-oriented leisure activities. Furthermore the following distinguishing item suggests that smoking is not a part of these participants' backgrounds
'It's no surprise I started smoking, everyone around me seemed to smoke when I was growing up.' (item 75,-6)*

Factor C: The Reactionary Smoker
The smokers described by this factor feel in control of their smoking behaviour and are likely to attempt to quit only if and when they feel the time is right to do so. Four participants had significant loadings. Other items loading on + 6 and + 5 are characteristic of these smokers' independent and somewhat reactionary stance.
'Smoking is about free choice' (item 28, + 6)
'People should live for today and smoke if they enjoy it' (item 74, +6)
'I'll give up when the time is right' (item 34, +5)
'I can go a whole day without smoking' (item 38, +5)
'No amount of no smoking signs will stop me smoking when I want a cigarette' (item 20, + 4)

Figure 3 about here

Quitting is seen as unproblematic, but a failed attempt to quit would not negatively affect self-esteem
'I'm a bit wary of quitting because I don't want to feel a failure if I can't.' (item 7, -6)*
'I get really depressed when I try quitting' (item 31, -3)*
'I could quit just like that if I wanted to' (item 58, +5)*
'If I quit smoking I'd feel like I'd lost a friend' (item 22, -5)

Social factors do not seem to be particularly important to these smokers
'I always felt a bit more important when I had some cigarettes to share at school' (item 41, -6)*
'As a smoker I like seeing the same weakness in another person (item 12, -4)
'Smoking increases the pleasure of a social occasion (item 9, -2)

One participant who exemplifies this factor clearly articulated the reactionary position: in response to the statement, "Some people will always have an axe to grind, smoking is just one of them", she comments, "True, especially members of the ban it brigade". There are no indications that these smokers strongly relate their smoking behaviour to social activity. They neither associate smoking during social interaction with increased enjoyment or pleasure, nor rely heavily on cigarettes in social context to modulate arousal or emotion. Moreover, these smokers feel able to continue to smoke or quit without the need of support or approval from others. Quitting is seen as unproblematic, and largely a matter of willpower and determination. These smokers appear to enjoy smoking for the large part, firstly because they can, and secondly because they refuse to give in to social pressure to quit.

Factor D: Smoking as a Social Event.

These smokers (2) loading on this factor draw heavily upon social context to explain their smoking. They represent smoking as being a prominent part of their social lives and feel that people should be allowed to enjoy smoking in accordance with the principle of free choice. This is evident in the rankings the following distinguishing items

'Smoking increases the pleasure of a social occasion' (item 9, +6)*
'Smoking is a big part of my social life' (item 4, +4)
'Beer/alcohol tastes better with a cigarette' (item 30, +5)*
'I tend to have at least one regular smoking partner during unofficial breaks at work/college' (item 72, +6)*
'Smoking is about free choice' (item 28, +6)*
'People should live for the day and smoke if they enjoy it' (item 74, +5)*

Figure 4 about here

These smokers do not believe themselves to be dependent on nicotine per se as they have no difficulty in abstaining for lengthy periods of time

'I'm a 'smokaholic' (item 8, -6)*
'I can go a whole day without smoking' (item 38, +5)
'I smoke purely out of habit' (item 1, -4)

These smokers strongly believe it is not too late to reverse any negative health consequences of smoking if they quit now. They also take care to observe smoking restrictions. A certain amount of pleasure is derived from smoking and there is a fear of social isolation if the smoking network were to diminish.

'I would hate it if all my friends suddenly quit smoking' (item 46, + 5)
'I need at least one other friend / significant person to quit with me' (item 51, -5)*
'My whole personality changes when I'm trying to quit' (item 68, -5)*

This smoker does not report modulating effects of smoking, for example the participants

who loaded on this factor disagree with the following statements:

'Smoking helps me concentrate' (item 14,- 5)

'I smoke most when I'm bored' (item 47,- 4)

There is an indication that these smokers are sensitive to the social disapproval regarding smoking, particularly while in unfamiliar company, and prefer their smoking behaviour to be *diluted* by the presence of fellow smokers:
'I always feel relieved to find a fellow smoker when in the company of strangers' (item 45, + 5)
'No amount of no smoking signs will stop me smoking when I want a cigarette' (item 20, -4)

In a written response to item 43, 'Smoking makes me feel less nervous when I'm with people I don't know well', participant 21 stated 'Agree, but if they are non-smokers I feel more nervous'. This indicates that these smokers are both conscious and cautious about incurring social disapproval. Nonetheless they enjoy an enhanced level of pleasure from smoking in appropriate social settings, especially when in the company of approving fellow smokers

Discussion

The factors derived from the Q study clearly show that while smokers' explanations of smoking can be classified in discrete ways, they are not homogenous. It is evident that smokers understand and explain their own smoking in different ways. This is important and demonstrates that smokers do not share a single theory of their own smoking. The interpretations discussed in the Results section suggest that smokers smoke for many complex, interacting reasons and that most participants, when provided with the tools to do so, can not only recognise diverse influences, but are able to use these influences to construct and explain their smoking behaviour in different ways. Many of these influences have been previously identified by research and it is important to note that smokers acknowledge their salience.

A commonality between some participants that emerged in the analysis of factor C, was a 'reactionary' and defensive attitude toward smoking behaviour. It is interesting that these smokers appear to be the only participants in this study who do not report using smoking as a tool. Although smoking is enjoyed in the company of others, they do not feel it enhances the pleasure of social situations. However, these participants appear to be sensitive to social disapproval and may feel stigmatised, possibly leading them to use their representations of smoking in the defensive way described by Echebarria-Echabe et al. (1994). The use of smoking to modulate arousal, affect or social performance was an important feature of all other representations. Those participants loading onto Factor A reported using smoking to modulate their emotional state and enhance performance in unfamiliar social situations while those loading onto Factor E used it to regulate internal states such as boredom. Image projection and identity achievement emerged as important variables. Participants exemplifying factor E, for example, suggest that smoking is seen as an expression of identity which supports previous research that has identified a clear

smoker identity which is recognised by both smokers and non-smokers (e.g. Lucas & Lloyd, 1999).

The importance of social influence and networks is clear in this analysis. It is apparent that, in some cases, smoking is facilitated in socially interactive situations and the company of approving fellow smokers. The smokers loading on Factor D exemplify this by explaining that their smoking habits are organised around social companionship. Viewed in this way, it seems likely that while an individual is benefiting from smoking, his or her motivation to quit will be low. It is also likely that these enhancements are not always consciously experienced; the smoker may not be aware of the effect of his or her smoking behaviour during the course of a normal day. If this is the case, it would certainly help to explain why quitters do not appear to appreciate the extent of cost to self and to social networks when they initially decide to quit.

In particular smokers report smoking to modulate affective states; to protect, project and maintain identity, and to facilitate socialisation: these effects clearly benefit the smoker. Furthermore, smokers have access to both negative *and* positive representations of smoking. These findings demonstrate that representations of own smoking held by smokers are complex and diverse, rather than singular, monolithic cognitions. They also suggest that smokers deal with the conflict between their behaviour and social disapproval in different ways, and that these issues may be understood by different smokers in a diverse ways.

This study does not claim to be representative; rather it is an exploration of the explanations of own smoking as articulated by smokers themselves. The findings demonstrated four distinct representations of own smoking behaviour within this sample of participants. These representations are rooted in each participant's own social location, and experiences at a particular point in time. Flick (2000) has stressed the importance of explicitly relating representations of health to socio-cultural context. Further research is needed to examine representations of own smoking in this way, particularly in order to understand the ways in which these representations differ between individuals and to develop a contextual understanding of them. Lucas & Lloyd (1999) emphasise the need to understand representations of smoking within the context of group membership in order to develop relevant targeted interventions, highlighting the dynamic and social nature of these representations. We suggest that smokers cannot be treated as a homogenous group assumed to share a single theory of smoking. It is important to understand how smokers' understand their own smoking, rather than smoking in general. We would additionally argue that an understanding of the diversity of smokers' representations and explanations of their own smoking could play a useful role in developing more effective targeted interventions, particularly given that an individual's representations affect the kind of information that is attended to and processed (Echebarria Echabe, Guillen & Ozamiz, 1993).

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Appendix

Statements used in this study

1. I smoke purely out of habit
2. Most of the people I enjoy mixing with are smokers
3. Smokers who can't quit are missing out on a lot of good things in life
4. Smoking is a big part of my social life
5. It's hospitable to offer a visitor a cigarette
6. I had two identities for a while when I took up smoking: A smoker with my mates and a non smoker with my parents/ family
7. I'm a bit wary of quitting because I don't want to feel a failure if I can't.
8. I'm a 'smokaholic'
9. Smoking increases the pleasure of a social occasion
10. I love smoking so why would I give up?
11. I feel a bit of an outcast in my group of friends when I try giving up
12. As a smoker, I like seeing the same weakness in another person.
13. I feel I can relate better to other smokers
14. Smoking helps me to concentrate
15. Smokers are a drain on the NHS
16. I would definitely give up smoker if I or my partner got pregnant
17. If you've made up your mind to quit then no amount of temptation will stop you.
18. I stay faithful to a certain brand regardless of cost
19. If I moved away and got a new job I'd find it easier to quit.

20. No amount of 'No Smoking' signs will stop me when I want a cigarette
21. Special smoking areas make it easier for me to start a conversation with a stranger
22. If I quit smoking I'd feel a bit like I'd lost a friend
23. Smoking is an emotional crutch
24. No-one believes I can quit anyway
25. Cigarettes rule my life
26. Smoking is a sort of ritual for bonding with others
27. Smoking is a positive experience
28. Smoking is about free choice
29. Even thinking about giving up makes me want to smoke
30. Beer/alcohol tastes better with a cigarette
31. I get really depressed when I try quitting
32. Smokers are more tolerant of the behaviour of others
33. I've smoked for too long now to make any difference to my health if I quit
34. I'll give up when the time is right
35. There's an art to smoking
36. Smoking is only a problem to non-smokers
37. When I've tried quitting, everyone else makes a big deal out of it.
38. I can go a whole day without smoking
39. Part of my failure to quit is because I still 'feel' like a smoker
40. Other smokers try and tempt you to smoke when you're quitting because they don't like losing one of their own
41. I always felt a bit more important when I had some cigarettes to share at school

42. Smoking is part of who I am
43. Smoking makes me feel less nervous when I'm with people I don't know well
44. I feel personally insulted when non-smokers moan about people smoking
45. I always feel relieved to find a fellow smoker when in the company of strangers
46. I would hate it if all my friends suddenly quit smoking
47. I smoke most when I'm bored
48. It would feel unnatural for me not to smoke
49. Smoking is an addiction to nicotine and nothing more
50. Even if I do quit, I will always think of myself as a smoker
51. I need at least one other friend / significant person to quit with me
52. Kids are more likely to smoke because of the anti-smoking hype than through being influenced by adult smokers
53. I'm sick of feeling guilty about smoking
54. Smoking makes you less attractive
55. I'd have to change my whole way of life to give up smoking
56. You can smoke and be fit at the same time
57. Non-smokers make better parents
58. I could quit just like that if I wanted to
59. I don't smoke in front of my parents / partner
60. Smokers will defend their habit until they die
61. Some people will always have an axe to grind, smoking is just one of them
62. I'd quit smoking if a new partner really objected
63. Smoking is a mugs game

64. Kids who start smoking early are usually the dare-devils
65. Quitting makes you eat more so I'd rather be a slightly unhealthy skinny smoker than a fat non-smoker
66. You can spot an occasional smoker a mile off
67. (When attempting to quit) Being nagged for having the odd puff really winds me up
68. My whole personality changes when I'm trying to quit
69. Kids are forced into smoking by their friends
70. I have loads of good memories which involve smoking
71. If I tried to quit, I'd have to avoid other smokers for a while
72. I tend to have at least one regular smoking partner during unofficial breaks at work/college
73. When I've tried to quit, the temptation to smoke is worse when I'm on my own
74. People should live for the day and smoke if they enjoy it
75. It's no surprise I started smoking, everyone around me seemed to smoke when I was growing up.

Author Note

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Figure Captions

Figure 1 : Ideal Q grid for Factor A (* indicates distinguishing items)

Figure 2: Ideal Q grid for Factor E (* indicates distinguishing items)

Figure 3: Ideal Q grid for Factor C (* indicates distinguishing items)

Figure 4: Ideal Q grid for Factor D (* indicates distinguishing items)

Figure 1

- 6	- 5	- 4	- 3	- 2	- 1	0	+1	+2	+3	+4	+5	+6
58	20*	33	66	5	62	65	37	41	39	26	28	21*
38	49	17	18	24	50	55	13	4	71	34	23	43
57	59	19	15	56	27	25*	9	1	32	42	14	45*
	12	35	70	2	10	60	6	7	44	48	47	
		36	51	22	61	8	46	69	53	31		
			3	54	72	74	30	67	16			
				63	11	52	29	73				
					40	75	68					

.

Figure 2: Factor E

- 6	- 5	- 4	- 3	- 2	- 1	0	+1	+2	+3	+4	+5	+6
33	10	35	44	74	52	55	73	71	30	15	25	63
75*	70	27	56	13	21	24	37	45	3	6	47	54*
36	40	58	46	61	65	19	31	64	8	72	29	53
	49	42	5	50	9	51	17	28	23	18	41	
		22	41	11	66	20	4	59	7	1		
			12	56	48	57	39	68	2			
				43	32	14	62	34				
					38	67	69					

Figure 3: Factor C

- 6	- 5	- 4	- 3	- 2	- 1	0	+1	+2	+3	+4	+5	+6
7*	4	51	57	11	27	13	44	56	49	64	14	6
3	66	8	40	15	37	69	26	67	50	20	58*	74
41*	46	25	19	9	39	5	68	23	18	1	38	28
	22	24	33	35	2	53	43	75	60	16	34	
		12	31*	48	70	10	52	30	45	17		
			55	54	72	21	47	36	16			
				71	42	62	32	63				
					73	29	65					

Figure 4: Factor D

- 6	- 5	- 4	- 3	- 2	- 1	0	+1	+2	+3	+4	+5	+6
8*	14	47	44	59	24	37	56	39	18	16	45	72*
49	51*	31	25	69	13	22	41	61	70	34	38	28*
33	68*	57*	48	73	6	2	43	21	10	67	30*	9*
	50	31	5*	75	66	12	71	26	42	63	74*	
		20	17	15	60	29	23	27	65	4		
			36	19	55	58	7	35	46			
				64	52	3	40	54				
					11	32	62					