

NICOTINE

1940s- 1960s	
Nicotine is major factor in habit	<p>1945:</p> <p>A study supported by the American Tobacco Company into the “Role of Nicotine in the Cigarette Habit” concludes that, “with some individuals, nicotine becomes a major factor in the cigarette habit”¹.</p>
What’s relation between nicotine and addiction	<p>1961:</p> <p>Sir Charles Ellis, BAT R&D Department notes the increasing use of tranquillisers and “pep pills” as potentially “very serious competitors to smoking ... If the competition is to be met successfully it must be important to know how tranquillising and stimulating effects of nicotine are produced, and the relation of addiction to the daily nicotine intake”².</p>
Nicotine addicts	<p>Sir Charles Ellis, “smokers are nicotine addicts”³.</p>
<p>Strength of addiction no grounds for complacency</p> <p>Need to understand addiction</p> <p>An alternative nicotine delivery device that’s not harmful is desirable</p> <p>Ex-smokers crave nicotine</p>	<p>1962:</p> <p>13 February: A BAT Private and Confidential memo “The Effects of Smoking” states: “The force of the habit or the strength of addiction is not such as to give any grounds for complacency in the face of alternative methods of stimulating the body to meet stress ... What we need to know above all things is what constitutes the hold of smoking, that is, to understand addiction ... some device which delivered the nicotine in an acceptable form without the harmful combustion products would be possibly more desirable ... We now possess a knowledge of the effects of nicotine far more extensive than exists in published scientific literature ... it is well known that the craving for nicotine in a confirmed smoker who stops smoking persists for ten, twenty or thirty days ... we believe that we have found possible reasons for addiction ... I still do not believe we could be complacent because the drug industry disposes of very powerful resources and may at any time attempt to invade the cigarette smoke field by alternative drugs”⁴.</p>
Smoking a habit of addiction	<p>Sir Charles Ellis, from BAT “..smoking is a habit of addiction ...nicotine is ... a very fine drug ”⁵.</p>
Study shows	<p>1963:</p> <p>May: An internal report on “The fate of Nicotine on the body” prepared by the Dettelle Memorial Institute for B&W states: “There</p>

nicotine key factor	is increasing evidence that nicotine is the key factor in controlling, through the central nervous system, a number of beneficial effects of tobacco smoke ..the alkaloid appears to be intimately connected with the phenomena of tobacco habituation (tolerance) and /or addiction” ⁶ .
Hippo - Explain tolerance and addiction	Also in 1963, the Batelle finishes its “Hippo” study for BAT, which had been examining nicotine: “A quantitative investigation of the relations with time of nicotine and of some possible brain mediators - on adreno-corticotrophic activity could give us the key to the explanation of both phenomena of tolerance and of addiction, in showing the symptoms of withdrawal.” ⁷ ”
Hypothesis on Nicotine addiction Body craves drug	The Batelle scientists also write a confidential essay for BAT called “A Tentative Hypothesis on Nicotine Addiction” in which the authors state: “Chronic intake of nicotine tends to restore the normal physiological functioning of the endocrine system, so that ever-increasing dose levels of nicotine are necessary to maintain the desired action ... [the] body craves for renewed drug intake ... This unconscious desire explains the addiction of the individual to nicotine ⁸ .”
Submission undesirable	3 July: Addison Yeaman, Vice President and General Counsel for B&W, writes a memo stating “submission Battelle or Griffith developments to Surgeon General undesirable” ⁹ .
Nicotine is addictive – we are in the business of selling an addictive drug	17 July: Addison Yeaman now writes: “The determination by Battelle of the ‘tranquillising’ function of nicotine, as received by the human system in the delivered smoke of cigarettes, together with nicotine’s possible effect on obesity, delivers to the industry what may well be its first effective instrument of propaganda counter to that of the American Cancer Society, et al, damning cigarettes as having a causal relationship to cancer of the lung ... Moreover nicotine is addictive. We are, then, in the business of selling nicotine, an addictive drug [emphasis added].” ¹⁰
Physiological effects	A further BAT document outlines: “Nicotine is by far the most characteristic single constituent in tobacco, and the known physiological effects are positively correlated with smoker response”. ¹¹
Surgeon-General: Tobacco use reinforced and perpetuated by nicotine	1964: The US Surgeon General concludes that: “The habitual use of tobacco is related primarily to psychological and social drives, reinforced and perpetuated by the pharmacological actions of nicotine on the central nervous system, the latter being interpreted subjectively as stimulant or tranquillising dependent upon the individual response” ¹² .
People smoke	October: Philip Rodgers and Geoffrey Todd visit the US on behalf of the Tobacco Research Council. Their report states “Mr.

because of nicotine	Galloway (RJR) thought that a reasonable amount of nicotine was necessary in a cigarette. Mr. Blunt [Liggett and Myers] firmly held the view that people smoked because of the nicotine” ¹³ .
Pharmacological effects of nicotine important – Clinically we administer nicotine	1967: 2 March: Dr. Green from BAT research, summarises recent findings: “there has been significant progress in understanding why people smoke and the opinion is hardening in medical circles that the pharmacological effects of nicotine play an important part ... It may be useful, therefore, to look at the tobacco industry as if for a large part its business is the administration of nicotine (in the clinical sense). ¹⁴ ”
Smoking is an addictive habit Oops it’s only a habit	24 –27 October: BAT’s 1967 Research Conference is held in Montreal. Draft minutes list “Assumptions made by R&D scientists”: “Smoking is an addictive habit attributable to nicotine and the form of nicotine affects the rate of absorption by the smoker ... It was likely, moreover, that tobacco would be involved in legislation of a food or drug administration nature in respect both of product and of manufacturer.” A hand-written note changes “addictive habit” to “habit”. The completed minutes state that “There is a minimum necessary level of nicotine. Smoking is a habit attributable to nicotine. The form of nicotine affects the rate of absorption by the smoker” ¹⁵ .
Smokers smoke for pharmacological effects of Nicotine	The Tobacco Research Council publishes research undertaken between 1963-66 including that of Dr Clark of UCL, which concluded: “that there was much evidence to support the assumption that smokers smoked in order to obtain the pharmacological effects of the nicotine in the tobacco” ¹⁶ .
Industry administers nicotine to consumers	1968: April: In a summary of BAT Group research it states: “There appear to be four recognisable types of smoking behaviour: 1. Habitual, 2. Addictive ... There are several identifiable reasons why people start and continue to smoke ... psychopharmacological ... it seems a good assumption that nicotine plays a predominant role for many smokers. So that a good part of the tobacco industry is concerned with the administration of nicotine to consumers” ¹⁷ .
Keep pharmacology of nicotine under review	September: Minutes from the Annual BAT research conference, show: “In view of its pre-eminent importance, the pharmacology of nicotine should continue to be kept under review and attention paid to the possible discovery of other substances possessing the desired features of brain stimulation and stress-relief without direct effects on the circulatory system. The possibility that nicotine and other substances together may exert effects larger than either separately (synergism) should be studied and if necessary the attention of Marketing Departments should be drawn to these possibilities” ¹⁸

<p>Its is drug, but keep quiet</p>	<p>1969: February: A memo from Philip Morris scientist, William Dunn says “Do we really want to tout cigarette smoke as a drug? It is, of course but there are dangerous FDA implications to having such conceptualisations go beyond these walls”.¹⁹</p>
<p>Nicotine has well documented pharmacological action</p>	<p>September: D.J. Wood from R&D at BAT gives a presentation to company executives: “Nicotine has well documented pharmacological action. It is claimed to have a dual effect, acting both as a stimulant and a tranquilliser. It is believed to be responsible for the ‘satisfaction’ of smoking, using this term on the physiological rather than the psychological sense ”²⁰.</p>
<p>Rats become habituated to smoke</p>	<p>3 October: RD Carpenter from Philip Morris writes a report on “RJ Reynold’s Biological Facilities” stating that: “Reynolds has developed an inhalation smoking machine which we also saw. The machine has obviously been in use for some time and is being used to expose rats to cigarette smoke ...the rats have become habituated to the smoke.”²¹</p>
<p>Primary reason for smoking is pharmacological effect of nicotine</p>	<p>Autumn: The Vice President for R&D at Philip Morris writes a draft report on “Why One Smokes”, stating “... the primary motivation for smoking is to obtain the pharmacological effect of nicotine. In the past, we at R&D have said that we’re not in the cigarette business, we’re in the smoke business. It might be more pointed to observe that the cigarette is the vehicle of smoke, smoke is the vehicle of nicotine, and nicotine is the agent of a pleasurable body response”.²²</p>

<p style="text-align: center;">1970s</p>	
<p>Smokers modify habit for nicotine</p>	<p>1970: The Tobacco Research Council publishes research undertaken between 1967-69, included those undertaken at the University of Newcastle which showed that “smokers may require ‘optimum’ doses of nicotine and that in order to obtain them from cigarettes of different nicotine content or availability they modify their smoking habits accordingly”²³.</p>
<p>Its all due to taste</p>	<p>Horace Kornegay from the US Tobacco Institute says: “There is, of course, no way to know that any given levels [of tar and nicotine] are of any relevance beyond simple matters of taste to individual smokers”²⁴.</p>
<p>We are in a nicotine industry</p>	<p>1971: 30 June: An internal BAT document shows that “Sir Charles [Ellis] started the meeting by saying that he had first brought out the concept that we are in a nicotine rather than tobacco</p>

	industry” ²⁵ .
Industry dependent on nicotine	A postdoctoral fellowship into Nicotine Analogues supported by BAT, stipulates that “It has been suggested that a considerable proportion of smokers depend in the pharmacological action of nicotine to continue smoking. If this view is correct, the present scale of the tobacco industry is largely dependent on the intensity and nature of the pharmacological action of nicotine” ²⁶ .
Without nicotine, there is no smoking The cigarette is not a product, but a package. The product is nicotine	William Dunn Jr. of Philip Morris addresses a conference in the Caribbean: “The majority of the conferees would go even further and accept the proposition that nicotine is the active constituent of cigarette smoke. Without nicotine, the argument goes, there would be no smoking ...no one has ever become a cigarette smoker by smoking cigarettes without nicotine. Most of the physiological responses to inhaled smoke have been shown to be nicotine-related ...The cigarette should be conceived not as a product but as a package. The product is nicotine ...Think of the cigarette pack as a storage container for a day’s supply of nicotine ...Think of a cigarette as a dispenser for a dose unit of nicotine. Think of a puff of smoke as the vehicle of nicotine ..Smoke is beyond question the most optimised vehicle of nicotine and the cigarette the most optimised dispenser of smoke” ²⁷ .
We must make a stand to defend our business – the manufacture and sale of dosage forms of nicotine	Claude Teague from RJR writes: “If, as proposed, nicotine is the sine qua non of smoking, and if we meekly accept the allegations of our critics and move toward reduction or elimination of nicotine in our products, then we shall eventually liquidate our business. If we intend to remain in business and our business is the manufacture and sale of dosage forms of nicotine, then at some point we must make a stand” ²⁸ .
Habituating	Another RJR Reynolds documents mentions the “habituating level of nicotine”, and asks “how long can we go on?” ²⁹
A potent drug Tobacco is the vehicle for delivery of nicotine	1972: April: An internal RJR Memo on the “nature of the tobacco business and the crucial role of nicotine” states “Tobacco products, uniquely, contain and deliver nicotine, a potent drug with a variety of physiological effects ...nicotine is known to be a habit-forming alkaloid, hence the confirmed user of tobacco products is primarily seeking the physiological “satisfaction” derived from nicotine ...His choice of product and pattern of usage are primarily determined by his individual nicotine dosage requirements ...Thus tobacco product is, in essence, a vehicle for delivery of nicotine” ³⁰ .
Nicotine is the product	22 June: A Philip Morris report entitled “Motives and Incentives in Cigarette Smoking” summarises that “The question is put as to why people smoke. The answer is proposed that one smokes to obtain nicotine. It is contended in this paper that nicotine

	<p>specially packed, is the cigarette industry's product"³¹.</p>
<p>Dependent on nicotine</p>	<p>July: Dr Green from BAT writes a memo on the "Association of Smoking and Disease", stating: "the tobacco smoking habit is reinforced or dependent upon the psycho-pharmacological effects mainly of nicotine"³².</p>
<p>Dependent on nicotine</p>	<p>November: A BAT report states: "It has been suggested that a considerable proportion of smokers depend on the pharmacological action of nicotine for their motivation to continue smoking. If this view is correct, the present scale of the tobacco industry is largely dependent on the intensity and nature of the pharmacological action of nicotine"³³.</p>
<p>Reject if nicotine level too low</p>	<p>A further BAT report recognises that if cigarette's nicotine level: "is so low that the nicotine is below the threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers"³⁴.</p>
<p>More people smoke for nicotine than taste</p>	<p>An internal Philip Morris memo by a company scientist says that: "A widely held theory holds that most people smoke for the narcotic effect (relaxing, sedative) that comes from the nicotine. The taste comes for the 'tar' delivery (particulate matter) delivery. Although more people talk about 'taste', it is likely that greater numbers smoke for the narcotic value that comes from the nicotine"³⁵.</p>
<p>Nicotine both unique and habituating</p>	<p>Claude Teague from RJ Reynolds says "happily for the tobacco industry, nicotine is both habituating and unique in its variety of physiological actions"³⁶</p>
<p>Free choice over smoking being negated by nicotine</p>	<p>1973:</p> <p>February: Ernest Pepples, B&W's assistant general counsel writes to J. Blalock, Director of Public Relations, regarding topical issues surrounding tobacco: "Addiction - Some emphasis is now being placed in the habit-forming capacities of cigarette smoke. To some extent the argument revolving around "free choice" is being negated on the grounds of addiction. The threat is that this argument will increase significantly and lead to further restrictions on product specifications and greater danger in litigation"³⁷.</p>
<p>pharmacologically active</p>	<p>June: A BAT glossary describes nicotine as a "pharmacologically active material present in tobacco and tobacco smoke"³⁸.</p>
<p>Delivery level</p>	<p>RJ Reynold's Claude Teague, writes: "Nicotine should be delivered at about 1.0-1.3 mg/cigarette, the minimum for confirmed smokers"³⁹.</p>
	<p>Claude Teague from RJ Reynolds writes that "In essence, a cigarette is a system for the delivery of nicotine to the smoker in an attractive, useful form"⁴⁰</p>
	<p>~1973: An undated B&W report, but quoting other reports from 1973, states: "The sensorimotor manipulation aspect of smoking is</p>

Without nicotine people would blow bubbles	Institute of Psychiatry: "There is little doubt that if it were not for the nicotine in tobacco smoke, people would be little more inclined to smoke than they are to blow bubbles or to light sparklers" ⁴⁵ .
Nicotine important	1975: April: Dr Green from BAT writes a paper on the "Basis for Research in Smoking": "we know that the pharmacological effects of nicotine and / or other agents are likely to be very important for some smokers" ⁴⁶ .
Smoking is an addiction not an habituation Anti-smoking campaigns ineffective because of addiction	14 July: Mrs A. K. Cromer, a research scientist at BAT writes: "Smoking is said by some to be an habituation rather than an addiction since smokers tend not to increase their drug dose over a period of time. This is not necessarily true, since smokers may increase their cigarette consumption over a period of years ... In summary, it appears most workers who are not directly concerned with the tobacco industry use the term 'addiction' or 'dependence' rather than 'habituation', and can be considered quite correct in doing so ... if cigarette smoking is as addictive as the evidence suggests, it is not surprising that anti-smoking campaigns are so ineffective, and moves towards the safer cigarette are the only sensible way forward" ⁴⁷ ."
Without nicotine cigarette market would collapse	F J Ryan of Philip Morris, writes a memo warning of the dangers of reduced nicotine: "The nicotine deliveries of these products may be low enough to constitute a partial weaning of the smoker". Another memo states that without nicotine "the cigarette market would collapse [Philip Morris] would collapse and we'd all lose our jobs and consulting fees" ⁴⁸ .
Marijuana and nicotine gum to rival cigarettes? Exploit cigarettes with subliminal levels of marijuana	1976: March: A BAT report entitled "The Product in the Early 1980's" states that "Forecasts based upon the emergence of a rival to the cigarette are rare, but the use of marijuana and nicotine-containing chewing-gum . . . have been suggested . . . Nearly ten years ago, a French paper discussed numerous plants which might replace tobacco. The only material which has received a lot of attention is marijuana, and the controversy on whether or not to legalise soft drugs has been frequently aired . . . in the illicit use of marijuana, relatively large doses of the active principal are involved. If the use of such drugs was legalised, one avenue for exploitation would be the augmentation of cigarettes with near subliminal levels of the drug" ⁴⁹ ..
Stimulant drug	October: BAT Research paper: "Nicotine is generally considered to be a stimulant drug" ⁵⁰ .
Pharmacological effect due to	10 December: A Lorillard research report outlines how: "the predominant systemic pharmacological effects of smoking are most

nicotine	likely due to nicotine ⁵¹ .
Smokers seek nicotine	A BAT Research paper concludes that “the majority of smokers who actually buy cigarettes and smoke them regularly are directly or indirectly seeking the effects of the nicotine content of smoke”. ⁵²
Active in the brain	A further BAT view on the role of nicotine in smoking behaviour: “It would therefore be surprising if nicotine, which is known to be pharmacologically active in the brain (unlikely cotinine), and which is obtained in the ways most likely to enable it to reach the brain unchanged, were not involved in the reasons why people smoke”. ⁵³
Nicotine-dependent	Also at a BAT research conference that year it is recognised that: “There will be increasing recognition by some medical authorities that smoking is a nicotine-dependent activity” ⁵⁴ .
Danger in lower cigarette deliveries	Dr. Green from BAT, writes, “Taking a long-term view, there is a danger in the current trend of lower and lower cigarette delivers [sic] – i.e. the smoker will be weaned away from the habit ... nicotine is an important aspect of ‘satisfaction’ and if the nicotine delivery is reduced below a threshold ‘satisfaction’ level, then surely smokers will question more readily why they are indulging in an expensive habit” ⁵⁵
Unable to stop Prefer to stop	1977: 19 May: A memo from Dr. Jagger of BAT’s Brazilian subsidiary Souza Cruz: “If you <u>ask</u> people why they carry out a practice which they are unable to stop (by and large) and which they would basically prefer to stop (if they could) it is reasonable to expect them to take considerable refuge in justifications – i.e. enjoyment, pleasure, taste, satisfaction, tension relief. etc” ⁵⁶ .
Addiction versus ethics	August: An advertising conference undertaken for B&W examines the goals of how to “market an ADDICTIVE PRODUCT in an ETHICAL MANNER” ⁵⁷ .
Bury results if similar to morphine	3 November: A Note from Philip Morris researcher William Dunn states: “I have given Carolyn approval to proceed with this study. If she is able to demonstrate, as she anticipates, no withdrawal effects of nicotine, we will want to pursue this avenue with some vigour. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it. Accordingly, there are only two copies of this memo, the one attached and the one I have” ⁵⁸ .
We are digging our own grave	29 November: T. S. Osdene, from Philip Morris writes an internal memo expressing amazement at the “trend that the CTR work is taking. For opens Dr. Donald Ford, a new staff member, makes the following quotes: ‘Opiates and nicotine may be similar in action’; ‘We accept the fact that nicotine may be habituating’.

	<p>‘There is a relationship between nicotine and the opiates’ ...It is my strong feeling that with the progress that has been claimed, we are in the process of digging our own grave ... I am very much afraid that the direction of the work being taken by CTR is totally detrimental to our position and undermines the public posture we have taken to outsiders”⁵⁹.</p>
Lets use another drug?	<p>BAT scientists discuss the drug etorphine, noting that it “is 10,000 as effective an analgesic as morphine and has addictive characteristics ...perhaps a regular dose of 0.2 ug/day would generate an addictive craving for the source. If so, 6 ug in, say, 30 cigarettes would provide such a dose ... Do you think the possibility that competitors might use such a route to create brand allegiance for low delivery cigarettes ought to be discussed at the Research Managers Conference”⁶⁰.</p>
Offer alternative to nicotine	<p>A Lorillard letter discussing new products outlines that "I don't know of any smoker who at some point hasn't wished he didn't smoke. If we could offer an acceptable alternative for providing nicotine, I am 100 percent sure we would have a gigantic brand”⁶¹.</p>
Antagonist would put us out of business	<p>1978:</p> <p>5 January: At a Council for Tobacco Research meeting “Dr. Seligman brought up the grant by Dr. Abood in which one of the stated aims was to make a clinically acceptable antagonist to nicotine. This goal would have the potential of putting the tobacco manufacturers out of business.”⁶²</p>
Addictive poison	<p>24 August: An internal B&W memo says: “Very few consumers are aware of the effects of nicotine, i.e. its addictive nature and that nicotine is a poison”⁶³.</p>
Nicotine responsible for tobacco use Smokers are dependent	<p>1979:</p> <p>30 July: An independent research paper prepared for the Tobacco Advisory Council states: “Nicotine is one of the most pharmacologically-active compounds in tobacco smoke ... there is now increasing evidence that the presence of nicotine may be the major factor responsible for the widespread use of tobacco in all human societies ..whilst smoking fulfils a psychological need in certain individuals it is only the inhaling cigarette smoker who is likely to gain psychopharmacological satisfaction from nicotine and become dependent on it .. cigarette smoking may induce psychological dependence in certain individuals as a result of nicotine”⁶⁴.</p>
Searching for a socially acceptable	<p>28 August: A BAT document outlines “Key Areas - Product Innovation over the Next 1- Years for Long-Term Development: “We have to satisfy the ‘individual’ who is either about to give up or has just done so, i.e., in other words, customers in danger of extinction ... we are searching explicitly for a socially acceptable</p>

addictive product	addictive product involving: - A pattern of repeated consumption - A product which is likely to involve repeated handling - the essential constituent is most likely to be nicotine or a 'direct' substitute for it".
People need to be dependent to sustain profit	"...We also think that consideration should be given to the hypothesis that the high profits additionally associated with the tobacco industry are directly related to the fact that the consumer is dependent upon the product. Looked at another way, it does not follow that future alternative 'Product X' would sustain a profit level above most other product/ business activities, unless, like tobacco, it was associated with dependence ⁶⁵ ."

1980s	
No longer making an adult choice	1980: 1 January: Dr Green writes that "It has been suggested that cigarette smoking is the most addictive drug. Certainly large numbers of people will continue to smoke because they can't give it up. If they could they would do so. They can no longer be said to make an adult choice" ⁶⁶ .
Drug company	11 April: A memo by BAT scientists "BAT should learn to look at itself as a drug company rather than as a tobacco company" ⁶⁷ .
Smoking is addictive	16 May: A strictly private and confidential report for BAT states: "Unlike dangerous sports and other high risk activities (except the drinking of alcohol) smoking is addictive/ habitative in addition to being an additional risk, and many smokers would like to give up the habit if they could" ⁶⁸ .
Nicotine is extremely active	21 May: A report for BAT states that "Nicotine is an extremely active biological compound capable of eliciting a range of pharmacological, biochemical and physiological response in vivo ... In some instances, the pharmacological response of smokers to nicotine is believed to be responsible for an individual's smoking behaviour, providing the motivation for and the degree of satisfaction required by the smoker" ⁶⁹ .
We sell nicotine	August: A Philip Morris scientist, T. S. Osdene, states in a memo to the company's Directors, "I believe the thing we sell most is nicotine" ⁷⁰ .
Can't defend "free choice" if person addicted	9 September: A USA Tobacco Institute memo says: "I'm told, that the entire matter of addiction is the most potent weapon a prosecuting attorney can have in a lung cancer / cigarette case. We can't defend continued smoking as 'free choice' if the person was 'addicted'" ⁷¹ .

Determine minimum level of nicotine	A Memo to the highest levels of Lorillard's management sets out the following research goal: "Determine the minimum level of nicotine that will allow continued smoking. We hypothesise that below some very low nicotine level, diminished physiological satisfaction cannot be compensated for by psychological satisfaction. At this point smokers will quit, or return to higher T&N brands." ⁷²
Rats addicted to nicotine A drug of abuse and addiction Research totally contradictory to public statements	Victor DeNoble, is employed by Philip Morris from 1980 to 1984, working on nicotine. During that time he undertook experiments on rats who had nicotine injected directly into their hearts. The results showed that the rats would administer a further dose of nicotine by pushing a lever. "Nicotine has properties of a drug of abuse. It has properties of drug addiction ...This [The results] was completely contradictory to the industry's position that nicotine is in cigarettes for taste. We know they [the rats] pressed the lever because of the drug effects on the animals brain. We also know from studies that if the substance was cocaine or morphine or alcohol the rates would continue to press the lever. We found the same in nicotine".
Addicted rats ruin billion dollar business? Lawyers don't like the word "drug"	When DeNoble took his findings to senior management he is asked: "Why should I risk a billion dollar industry on rats pressing levers for nicotine". Increasingly his work is monitored by the lawyers. Says DeNoble "Reports were constantly monitored. The most interesting thing was that they wanted me to change certain words. I basically said 'Nicotine is a drug that is widely used' and they told me to write that 'nicotine is a compound'. They do not want the word drug used - they were adamant about that. We were not allowed to talk about nicotine or anything in tobacco as a drug" ⁷³ .
Build up requirement	1981: December: George Mackin, Philip Morris: "Cigarettes are not just habit-forming, but the body builds up a requirement for them" ⁷⁴ .
A potent pharmacological agent	1982: 23 February: A memo by Philip Morris researcher J. L. Charles states that "Let's face facts... Nicotine is a potent pharmacological agent. Every toxicologist, physiologist, medical doctor and most chemists know that. It's not a secret" ⁷⁵ .
Nicotine dependency will be attacked	April: Secret BAT Board Guidelines include the assumption that: "Psychopharmacological aids (marijuana, nicotine chewing gum etc) will continue in wide use. Certain drugs will be permitted and become accepted for social use ... nicotine dependency will be attacked and claims made that nicotine is addictive. Consequently, manufacturers will be encouraged to lower nicotine levels further and / or improve the ratio of nicotine to tar" ⁷⁶ .
	7 April :A BAT study into Human Smoking Behaviour states "It is generally accepted that a large number of habitual smokers are

Pharmacological agent	influenced in their smoking habit by the amount of nicotine that they draw from a cigarette ...nicotine is the most pharmacologically active constituent in tobacco smoke and is probably the most usual factor responsible for the maintenance of the smoking habit”
Where does the addiction threshold lie?	“It is possible to consider nicotine as the component of cigarette smoke that controls the amount of smoke that a smoker takes from a cigarette ... If delivery levels are reduced too quickly or eventually to a level which is so low that the nicotine is below the threshold of pharmacological activity then it is possible that the smoking habit would be rejected by a large number of smokers. It is not known where this threshold between just acceptable and rejection lies” ⁷⁷ .
Addicting agent	A B&W document on getting smokers to switch brands states that: “Nicotine is the addicting agent in cigarettes”. ⁷⁸
Heads we lose, tails we cannot win	1983: 16 February: At a meeting of research directors from Imperial, Gallahers, Rothmans, BAT and Philip Morris, “The role of nicotine, at the relevant lower range of nicotine dosage, in perpetuating the smoking habit” is discussed. “This is a particularly sensitive area for the industry ... If any study showed that nicotine was, or was not, associated with perpetuating the smoking habit, industry could well be called upon to reduce or eliminate nicotine from the product (A heads we lose, tails we cannot win situation) ⁷⁹ .”
We cannot defend tolerance	16 March: An internal Philip Morris document states that: “The third edition of the <i>American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders</i> defines substance dependence as ‘...requires physiological dependence, evidenced by either tolerance or withdrawal’. The key word is <u>either</u> . We can successfully defend the absence of withdrawal under controlled experiments, but we cannot defend tolerance. Tolerance to nicotine is a well established fact” ⁸⁰ .
Addicting agent	25 March: A B&W researcher, A. J. Meilman writes that “People smoke to maintain nicotine levels; stress robs the body of nicotine, implying a smoker smokes more in times of stress due to withdrawal, <u>not</u> to relax, whatever ... Nicotine is the addicting agent in cigarettes” ⁸¹ .
Urgent need	August: The Annual BAT research conference, recommends that “there is an urgent need to prepare a status review in all major aspects of the pharmacological influences in the smoking process”. ⁸²
Taste unimportant	October: An internal RJ Reynolds document states that: “The cigarette’s taste is a relatively unimportant benefit of smoking ... a cigarette supplies nicotine to the consumer in a palatable and convenient form ... One feature of nicotine which leads to repeated usage is its 10 minute to 1 hour half-life in the human body.” ⁸³

Addicted to nicotine	An internal B&W memo outlines how the company perceives its customers, as it contemplates introducing coupons for its Raleigh and Belair brands. "Raleigh and Belair smokers are addicted to smoking. They smoke primarily to reduce negative feeling states rather than for pleasure. Given their low income, smoking represents a financial drain on family resources. Saving coupons for household items helps reduce guilt associated with smoking" ⁸⁴ .
85 % regret smoking	1984: 20 March: A Report for Philip Morris into the "Cigarette Consumer" highlights how "People continue to smoke because they find it too uncomfortable to quit. Over 85 per cent of smokers agree strongly/ very strongly to 'I wish I had never began smoking'. Over 80 per cent claim to have had attempted to quit" ⁸⁵ .
Nicotine conference	6-8 June: At a BAT "Nicotine Conference", an "attempt was made to explain how nicotine produces its effects within the nervous system (both central and peripheral) by action at 'nicotine receptors', and to describe studies on the nature of these receptors and how they may be altered by chronic nicotine administration" ⁸⁶ .
Metered dose Other nicotine sources Smokers will compensate	July: G. Read from Imperial Tobacco gives a lecture at a BAT Smoking Behaviour /marketing conference in Montreal, saying: "in its simplest sense puffing behaviour is the means of providing nicotine dose in a metered fashion" Another "hypothesis" put forward at the conference is that "If smokers are addicted to nicotine then (1) the nicotine smokers get from cigarettes may be replaced by nicotine from other sources. (2) Cigarettes of different strengths should be smoked differently e.g. . smokers given a low/reduced delivery cigarette should smoke it more intensively (and vice versa) ⁸⁷ .
Pharmacological function difficult to defend in court	16 August: Ernest Pepples, B&W's Senior Vice President and General Counsel, writes to E. E. Kohnhorst, Vice President of RDE, discussing a report entitled "The Functional Significance of Smoking in Every Day Life" : .. "the report seems to concede that many potential criteria for addiction identification are met by smoking behaviour. For example, the report urges the position that the primary motivation for smoking is ultimately tied to a pharmacological 'psychoactive' function of nicotine ...the report presents some potential for an apparent inconsistency among B&W's scientists, which could cause some difficulty in court".
Acceptance that cigarettes are addictive	"..The authors of the report attempt to draw a fine line between 'addiction' and 'functional' behaviour ...our opponents would probably disregard such a distinction and contend that this was an acceptance by the authors of the report of the basic allegation that cigarette smoking is addictive ...in the current legislative and litigation environment, claims of addiction have been and will be

Reject claims	used against B&W and the other companies by our adversaries. Such claims have been vigorously opposed in order not to give a claimant an unjustified weapon to use against the company or the industry. In addition, the possibility of FDA involvement would be heightened by company or industry promotion of the theme of this report as it will be generally perceived. ⁸⁸ ”
May want to involve the lawyers	28 August: Ernest Pepples, expresses further concern about the report to the Deputy Chairman, stating that “You may want to consider involving them [lawyers] more closely in both the conceptual and the drafting stages of these projects ⁸⁹ .”
No addiction warning	The US tobacco industry accepts the latest round of health warnings on packets, but successfully lobbies not to have the word “addiction” on any warning ⁹⁰ .
Nicotine and central nervous system	Proposed BAT research includes Smoke Pharmacology: “The work will continue to identify the mechanisms of nicotine interaction within the central nervous system” ⁹¹ .
8 times worse than alcohol and more resistant than heroin	1985: Dr. William Pollin, National Institute on Drug Abuse, states that tobacco could be eight times deadlier than excessive alcohol abuse and more resistant to treatment than heroin addiction: “Our society should seek some appropriate way to inhibit the present degree of freedom to push its most prevalent drug of abuse - nicotine ⁹² ”
Minimum amount	1987: A Philip Morris research scientist notes: “a minimum amount of nicotine is needed for the smoker’s satisfaction (0.8 mg/cig)”. ⁹³
Surgeon-General: Cigarettes are addicting	1988: The US Surgeon General officially declares that “cigarettes and other forms of tobacco are addicting”. The pharmacological and behavioural processes “similar to those that determine addiction to drugs such as heroin and cocaine”. ⁹⁴
Claims that cigarettes are addictive contradict common sense Without medical or scientific foundation	16 May: The Tobacco Institute responds to the Surgeon-General by stating that “claims that cigarettes are addictive contradict common sense ... The claim that cigarette smoking causes physical dependence is simply an unproven attempt to find some way to differentiate smoking from other behaviours ... The claims that smokers are ‘addicts’ defy common sense and contradict the fact that people quit smoking every day ... An escalation of antismoking rhetoric ... without medical or scientific foundation ⁹⁵ ”
Analogues studied	7 October: RJ Reynolds publishes an internal paper “An Integrated Research Programme for the Study of Nicotine and Its Analogs”. The company is studying hundreds of analogues for their

for pharmacological effects	pharmacological effects, including their effect on the same receptors in the brain that are affected by nicotine. The company finds that levulinic acid “can enhance the binding of nicotine to nicotinic receptors in rat brain membrane preparations (unpublished observations). This appears to be a pharmacologically specific effect since it occurred at very low concentrations of levulinate ⁹⁶ ”.
Not addiction	1989: Forest: “Smoking is not a form of ‘addiction’ with consequences akin to those of drug addiction ⁹⁷ .”
Unwarranted addiction	March: Tobacco Institute of Hong Kong: “Many anti-smokers claim that cigarette smoking is ‘addictive’ ... This claim is unfortunate and unwarranted ... There is not even agreement in the medical and scientific literature about the very definition of the term ‘addiction’” ⁹⁸ .
Its not addictive	May: Chairman of Philip Morris, Hamish Maxwell, says he quits smoking “for a month or so, every so often, just to show I can. It’s not addictive” ⁹⁹ .

1990s	
Legitimate addiction?	1990: March: P. Maglione from Philip Morris: “We’ll never get children of crack and heroin, if we keep comparing their terrible addiction to the legitimate use by hundreds of millions of people to legal products like cigarettes, beer, fast food and coffee” ¹⁰⁰ .
Optimum deliveries	Three Philip Morris scientists state that “have shown that there are optimal cigarette nicotine deliveries for producing the most favourable physiological and behaviourable responses”. ¹⁰¹
Repeat sales	Philip Morris: The Marlboro Story: “Cigarettes are a repeat sales business - the customer buys the product every day”. ¹⁰²
Nicotine business	1991: 3 May: A RJ Reynolds report states: “We are basically in the nicotine business” ¹⁰³ .
Cannot imitate nicotine	8 August: Linda Rudge, a BAT Information Scientist, writes about “Smoking Cessation Methods”, commenting that: “Overall, most methods have achieved, at best, only moderate success because they cannot imitate the unique property of inhaled cigarette, the delivery of unchanged nicotine to the brain occurring a few seconds after taking a puff” ¹⁰⁴ .
To sell or not to	1992: 3 April: Internal BAT documents argue the pros and cons of BAT

<p>sell nicotine patches:</p> <p>Danger of addiction</p> <p>Need to fill the void left by unacceptable tobacco</p>	<p>entering the market selling Transdermal Nicotine (nicotine patches) or chewing gums. The disadvantages of nicotine gum as seen as “The danger of addiction”. Under Alternatives, a documents states that the “disadvantages of rapid nicotine intake similar to that achieved with a cigarette is seen in the danger of people becoming dependent on it. Successes in breaking the smoking habit are therefore seen in a combination of slow and fast-working nicotine release systems tailored to individual needs ... We should be looking for opportunities to fill the void for products that provide satisfaction in a form that is acceptable to market segments that find currently available tobacco products unacceptable”¹⁰⁵.</p>
<p>Liability problem</p> <p>FDA jurisdiction?</p> <p>Admitting people smoke for nicotine</p> <p>Argument runs square</p>	<p>24 April: An internal memo “outlines the major regulatory and product liability issues associated with B&W or any BAT affiliated company becoming involved in the sale of devices designed to deliver nicotine ... We obviously need to make sure that we don’t do anything in the nicotine delivery device area which could lead to the FDA asserting or obtaining jurisdiction over cigarettes ... While we would structure any entry into the nicotine delivery business to avoid any linkage to the tobacco business, we would still face strong arguments that by being associated with any such business, B&W or BAT would be admitting that the real reason people smoke is for the nicotine. This new device would be characterised as being just an alternative to smoking as a vehicle for delivering nicotine ..The marketing of any nicotine delivery system undercuts our position on addiction, particularly the way the patch products are being marketed. To be involved even peripherally in a product whose purpose is to chemically help smokers quit runs square into our argument that 50 million people have quit smoking without the assistance of smoking cessation programmes or aids”¹⁰⁶.</p>
<p>treatment of nicotine dependence</p>	<p>19 May: The BAT Tobacco Strategy Review Team continue the discussion on “transdermal nicotine”. “Pharmaceutical companies manufacturing nicotine patches are currently marketing them for ‘treatment of nicotine dependence – as a smoking cessation aid, claiming for example, the psychopharmacological stimulant effects of nicotine underlie the tobacco nicotine addiction’ ... those who quit using parches relapse at about the same time as everyone else ... six months after having stopped using the patches, the share of subjects not smoking ranged from 0 to 48% compared with a rate of 0 to 40 % of those who did not use them”.</p>
<p>Patches are not cigarettes</p> <p>Nicotine is a poisonous drug</p>	<p>The document also highlights how the patches would “need to be clearly positioned as <u>not</u> being an alternative to cigarette smoking, since this would erroneously suggest that the cigarette itself is a simple nicotine delivery device ... Patches may focus debate on nicotine as a psycho-active component of cigarettes, diverting attention from other valid aspects of smoking satisfaction (taste, texture visual/tactile stimuli) and potentially focusing on nicotine as</p>

	a drug and a poison.” ¹⁰⁷
Addiction is ideological	Philip Morris issues a pamphlet stating: “Those who term smoking an addiction do so for ideological – not scientific – reasons.” ¹⁰⁸ ”
Nicotine linked to cocaine, atrophine and morphine	An undated Philip Morris draft report, written by Barbara Reuter, director of portfolio management for Philip Morris' domestic tobacco business, examines the a “safer” cigarette, code-named “Table” . It uses data from late 1992, and is used by the <i>Wall Street Journal</i> in December 1995. The report states: “Different people smoke for different reasons. But the primary reason is to deliver nicotine into their bodies. Nicotine is an alkaloid derived from the tobacco plant. It is a physiologically active, nitrogen containing substance. Similar organic chemicals include nicotine, quinine, cocaine, atropine and morphine [emphasis added] ¹⁰⁹ ”.
FDA - evidence accumulating that companies maintain addiction	1994: 25 February: David Kessler, the Commissioner of the Food and Drug Administration in the US, writes: “Evidence brought to our attention is accumulating that suggests that cigarette manufacturers may intend that their products contain nicotine to satisfy an addiction on the part of some of their customers”. It was the FDA’s understanding that tobacco companies “commonly add nicotine to cigarettes to deliver specific amounts of nicotine.” If the FDA made a ruling to this effect “it would have a legal basis on which to regulate these products” ¹¹⁰ .
40 million quit – its not addictive	20 March: Steven Parrish, Philip Morris USA General Counsel, tells a reporter how he had responded to his daughter on some questions relating to cigarettes: “And I told her that a lot of people believe that cigarette smoking is addictive but I don’t believe it. And I told her the Surgeon General says some 40 million people have quit smoking on their own”. ¹¹¹
It has taste	27 March: Brennen Dawson, Vice President, Tobacco Institute, “Nicotine is essential. It has taste. It has what’s called a mouth feel” ¹¹² .
Its not addictive	13 April: Brennan Dawson, Tobacco Institute: “nicotine is not addictive” ¹¹³ .
	14 April: Seven US tobacco CEO’s testify before Congressional Health and Environment Subcommittee:
Its not addictive	Thomas Sandefur, Chief Executive of Brown and Williamson says “I do not believe that nicotine is addictive” ¹¹⁴ .
Its not addictive	William Campbell from Philip Morris: “I believe nicotine is not addictive”.
Its not addictive	Donald Johnston, from American Tobacco: “Cigarettes and nicotine clearly do not meet the classic definitions of addiction. There is no intoxication”
Its not addictive	Joseph Taddeo, US Tobacco Company : “I don’t believe that

	nicotine or our products are addicting”
Its not addictive	Edward Horrigan, Liggett Group, “I believe nicotine is not addictive;
Its not addictive	James Johnston, RJ Reynolds: “And I too believe that nicotine is not addictive” ¹¹⁵ .
Of course its addictive	6 October: Ross Johnson, ex-Chief Executive of RJ Reynolds, is asked whether nicotine is addictive: “Of course it’s addictive. That’s why you smoke the stuff” ¹¹⁶ .
It’s a habit – its not addictive	23 October: Martin Broughton, CEO of BAT: “We contend very forcibly that cigarette smoking is habit forming. It is not addictive. There is a mass of discussion of course, between the bounds of what is addiction and what is habit forming. I think that common sense really says for most people that cigarette smoking is a habit” ¹¹⁷ .
	1995: 30 May -1 June: An internal Training Manual for Philip Morris 8 key “Messages” on addiction:
Its not like heroin	<ul style="list-style-type: none"> • The picture of smoking as a personally and socially destructive craving (like heroin addiction) is not justified.
Addiction has no meaning	<ul style="list-style-type: none"> • ‘Addiction’ no longer has any legitimate scientific meaning and it is commonly used when referring,, to chocolate, smoking, coffee and exercise - as 'addictive'. The US
Video games	<ul style="list-style-type: none"> • Surgeon General has even called video games addictive.
Psychoactive	<ul style="list-style-type: none"> • Nicotine can be described as 'psychoactive' - like caffeine or adrenaline produced by, exercise but it is not an intoxicant e.g. it does not impair a smoker's functioning, even in complex tasks like driving a car.
No tolerance	<ul style="list-style-type: none"> • A substance such as heroin produces ‘tolerance’ - users need to take increased dosages to reach the same level of intoxication Nicotine does not produce tolerance, a smokers average number of cigarettes a day can remain stable for years
No physical reaction	<ul style="list-style-type: none"> • Nicotine, unlike heroin, cocaine, even alcohol does not produce serious physical reactions - quitting smoking requires little if any medical attention.
It’s a habit	<ul style="list-style-type: none"> • In terms of being difficult to give up: smoking is a habit and habits can be difficult to break Giving up smoking can be compared to trying to loose weight or give up coffee.
Nicotine does not replace cigarettes	<ul style="list-style-type: none"> • If the ‘nicotine addiction’ theory were true, giving smokers nicotine - through gum, a patch or intravenously - would eliminate 'withdrawal' and the desire to smoke. Most studies indicate that simply replacing the nicotine does not satisfy a smoker's desire for cigarettes. Nicotine therapies have, at best, a small effect on successful quitting
Its easy to quit	<ul style="list-style-type: none"> • Smokers do not have a problem stopping smoking if they have a personal desire to do so. 98% of people quit without assistance¹¹⁸.”

FDA – Nicotine is a drug	July: The US FDA concludes that nicotine is a drug and should be regulated ¹¹⁹ .
Regulate nicotine	August: In the US President Clinton announces that nicotine is an addictive drug and gives the FDA responsibility to regulate the promotion, sales and distribution of cigarettes ¹²⁰
Its not addictive	8 June: B&W statement: “We continue to believe that nicotine is not addictive because over 40 million Americans have quit smoking, 90 per cent of them without any help at all” ¹²¹ .
	29 November: Dr Wigand, ex-Chief of Research at B& W from 1989-1993, testifies in a legal case in New Orleans.
	Question: How many conversations would you say you had between 1989 and 1993 when you were dismissed by Mr Sandefur, about cigarette smoking and the addictive nature of nicotine”?
We are in the nicotine delivery business	Wigand: “There have been numerous statements made by a number of officers, particularly Mr. Sandefur, the president of the company, that we’re in the nicotine delivery business and tar is nothing but negative baggage”
	Question: “Were you in the presence of Mr. Sandefur, the president of the company, when he voiced the opinion and the belief that nicotine was addictive?”
	Wigand: “Yes”
	Question: “Did he express that view on numerous occasions”?
Generally recognised that nicotine is addictive	Wigand: “Frequently ...I think it was generally recognised that nicotine was addictive” Question: “Generally recognised by whom?” Wigand: “By most of the scientists and management of B&W”
	Question: What is the basis for your opinion, professional scientific opinion, that nicotine is addictive?”
Nicotine is Pharmacologically active	Wigand : “I think nicotine is addictive in a number of aspects. First of all, nicotine is a pharmacologically active compound. I think it has been clearly demonstrated that nicotine elicits pharmacological effects ...Nicotine also mimics many of the endorphins, which are the body’s natural analgesic compound, painkillers. I think the reinforcing effect of nicotine is one, I think it is clearly documented in the scientific literature outside the tobacco industry that nicotine is an addictive substance and a drug”. ¹²²
Clinton: Its an addictive drug	1996: 24 August: President Clinton declares nicotine an addictive drug, and puts sales and distribution of tobacco under the control of the FDA ¹²³
Fudge not addiction	24 August: Clive Turner, an Executive Director of BAT, on whether cigarettes are addictive: “It depends on how you define addiction. People talk very loosely about being addicted to alcohol, sex, gambling, chocolate. What they mean is that they enjoy it, not that

	they can't give it up. The British Medical Association itself advises doctors not to use the word addiction with smokers, because it implies they won't be able to quit" ¹²⁴ .
Compulsive behaviour	24 August: Dr Martin Jarvis, Director of Imperial Cancer research Fund's Health Behaviour Unit at University College, London: "Half of those who have had a lung removed and 40 per cent with heart disease return to smoking ...smoking is a compulsive behaviour that people find hard to stop" ¹²⁵ .
No research show smoking is addictive	31 October: Martin Broughton, Chief Executive BAT: "We have not concealed, we do not conceal and we will never conceal ... we have no internal research which proves that smoking causes lung cancer or other diseases or, indeed, that smoking is addictive." ¹²⁶
Cigarettes are not a drug Addiction is ideological not scientific	A Philip Morris Position Statement On A Wide Range of Issues, produced, it is believed in 1996 for employees states: "Comparing cigarettes with illegal drugs, such as heroin and crack cocaine, trivialises the enormous social crisis of illegal drug abuse in this country. Cigarettes are legal and socially acceptable in every country in the world. More than 40 million Americans have quit smoking. More than 95 percent quit without any organised program. They simply made the decision to stop smoking and they did so. The same cannot be said for users of truly addictive drugs, such as heroin and cocaine. Cigarettes neither alter a person's mood, nor do they impair an individual's ability to function. Smokers do not rob or kill to acquire cigarettes. Those who term smoking an addiction do so for ideological -- not scientific -- reasons ¹²⁷ [emphasis added]".
Smoking is addictive	1997: March: US tobacco company, Liggett, become the first company to acknowledge "that smoking is addictive". The company plans to start putting warnings on its packs, "smoking is addictive" ¹²⁸ .
Oh, no its not	In response to the Liggett admission a spokesperson for the Rothmans International Group maintains that : "Under the scientific definition of addiction we do not believe cigarettes are addictive" ¹²⁹ .
There are no more addictive than sweets	April: The President of Philip Morris' US tobacco division, James Morgan, testified that cigarettes are no more addictive than the sweets, Gummy bears. "If they are behaviourally addictive or habit-forming, they are much more like caffeine, or in my case Gummy Bears. I love Gummy Bears ...and I want gummy bears and I eat Gummy Bears and I don't like it when I don't eat my Gummy Bears, but I'm certainly not addicted to them" ¹³⁰ .
Drug delivery devices	25 April: US Judge Osteen rules that the Food and Drug Administration can regulate tobacco, declaring that cigarettes were "drug delivery devices" for the delivery of nicotine. The industry says it will appeal. ¹³¹

Its meaningless	28 April: Paul Sadler, Manager for External Affairs at Imperial says that the concept of nicotine addiction was a “meaningless discussion. We accept that some smokers find it hard to give up smoking, but then some people find it hard to giving up watching <i>Neighbours</i> , or drinking coffee”. ¹³²
Cover-up?	4 May: It is announced that the FBI has been assigned to examine whether US companies lied to Congress, Government, and agencies and withheld data on the addictive nature of nicotine” ¹³³ .
Smoking is addictive	2 June: The US company Liggett puts a new health warning on some products: “Warning: Smoking is addictive” ¹³⁴ .
Warning: Smoking is addictive	23 June: As part of a landmark deal in the US, the tobacco industry agrees that the FDA can regulate nicotine, which will have the power to reduce nicotine levels and also ban it after 2009. However, before the FDA can take this step it would have to prove that the move would not create a “significant demand for contraband”, a move that most commentators think is untenable. Also included in the deal are extra health Warnings, including “Cigarettes are Addictive” ¹³⁵ .
Funding closed for “getting too close”	<p>20 September: Dr. Gary Huber was the principal investigator in charge of the research program at Harvard University relating to smoking and health. The program was funded in part by a five-year grant, and a three-year extension of that grant, from the tobacco industry. He testifies in <i>The State of Texas v. American Tobacco Company, et. al.</i> US District Court, Eastern District of Texas.</p> <p>Q: “Did you ever have a meeting in a hotel in Boston with industry officials who expressed concern that your research was, ‘getting too close to some things’?”</p> <p>A “Yes”.</p> <p>Q. “Who was that, sir?”</p> <p>A. “It was with industry attorneys”.</p> <p>Q. “Can you tell us approximately when that happened, Doctor?”</p> <p>A. “I would anticipate it was in 1980. But I would have to check the records to be sure.”</p> <p>Q. “Were the implications of your work at Harvard on human subjects with nicotine, with respect to such issues as whether or not nicotine may be a dependent-producing substance or addictive substance”?</p> <p>A. “It would support -- it would support the concept that it was a dependent-producing substance”.</p> <p>Q. “Did you tell officials of the cigarette companies that, the implications of what you had proved”?</p> <p>A. “We presented it to them in great detail”.</p> <p>Q. “And was your funding reviewed to continue that study”?</p> <p>A. “No”¹³⁶.</p>

<p>Under some definitions its addictive, but not ours</p>	<p>October: The proposed labelling of cigarettes as addictive reflects the view of public-health bodies and not industry, cigarette companies tell the US Congress.</p> <p>RJ Nabisco CEO Steven Goldstone writes that “we certainly accept that these warnings are true and acceptable reflections of the predominant public-health view”. Philip Morris states: “We recognise that nicotine, as found in cigarette smoke, has mild pharmacological effects, and that, under some definitions, cigarette smoking is ‘addictive’”, however smoking does not adhere to other “hysterically accepted and objective criteria, such as intoxication and physical withdrawal, as important markers” of addiction.</p> <p>B&W “continues to believe that the term ‘addiction’ ceases to have a useful meaning when it is applied indiscriminately to substances with such different physical and psychological effects as coffee and heroin”¹³⁷.</p>
<p>Not scientifically proven</p>	<p>December: Paul Adams, the Director of Consumer Affairs at BAT says that the notion that smoking is addictive has not been scientifically proven and that there is no clear definition of addiction.¹³⁸</p>
<p>Its addictive Oh no its not</p>	<p>1998:</p> <p>January: Chairmen of Philip Morris, RJR Nabisco and UST, who are appearing before the US House Commerce Committee, all answer affirmatively when asked whether they believe nicotine is addictive. Only Nicholas Brookes of B&W states “It [addiction] is not a term I’d use in relation to cigarettes.”</p>
<p>Under some definitions it addictive</p>	<p>Geoffrey Bible, Chairman of Philip Morris: “We recognise that nicotine, as found in cigarette smoke, has mild pharmacological effects, and that, under some definitions, cigarette smoking is ‘addictive’”¹³⁹.</p>
<p>Its not addictive Its just habit forming</p>	<p>February: Three CEOs give testimonies at the Minnesota Trial: “I wouldn’t personally, in a serious debate about smoking, label tobacco as addictive”, says Nick Brookes, chairman and CEO of Brown and Williamson Tobacco Corp. “What addiction, in my use of that word, means, is that people can’t quit”.</p> <p>Both Vincent Gierer Jr. of U.S. Tobacco, and Steven Goldstone of RJR Nabisco say cigarettes are habit-forming, as opposed to being addictive. At the Congress Committee last month, Goldstone and Gierer appeared to concede that tobacco is addictive¹⁴⁰.</p>
<p>Addiction is an</p>	<p>1 March: Dr. Chris Proctor from BAT responds to an editorial in <i>the Observer</i> which stated “For years the companies maintained that cigarettes were not addictive. That was a lie”. According to Proctor “the truth is more complex. Addiction is an emotive</p>

emotive subject Definitions have changed	subject and it is certainly possible to define the term broadly enough to include smoking. It is often forgotten that the public's understanding has changed significantly over recent decades. Whereas earlier definitions were based on objective criteria, the current definition is more colloquial, reflected in terms like 'chocaholic' and 'Addicted to love' as in a recent movie. This colloquial definition is all inclusive and certainly applies to the use of many common substances that have familiar pharmacological effects to cigarettes, such as coffee, tea, chocolate and cola drinks".
Smoking does not intoxicate	"British American Tobacco believes that for addiction to have any useful meaning, it needs to be based in objective criteria such as intoxication, physical dependence or tolerance levels. Smoking does not intoxicate, does not induce physical dependence and does not require increasing doses. Put another way, would you rather fly with the pilot who has a pack of Lucky Strike in his pocket or the one with the syringe in his garment bag or alcohol in his blood?
A change in definition Its easy to quit	... "Our critics enjoy pointing out that a different Surgeon General widened the definition in 1988 to include nicotine. But this only reflects changes in definition and does not mean that those believing the objective definition were lying ...the experiences of millions of smokers who have stopped without any medical intervention flatly contradict the claim that any smoker is incapable of quitting" ¹⁴¹ .
Addiction sustains smoking epidemic	11 March: The Report of the Scientific Committee on Tobacco and Health (SCOTH) is published: "Addiction to nicotine is now known to sustain the smoking epidemic ... Addiction to nicotine sustains cigarette smoking and is responsible for the remarkable intractability of smoking behaviour" ¹⁴² .
Nicotine depresses brain's ability to feel pleasure	May: A team of neuropharmacologists publish a survey in <i>Nature</i> into nicotine and rats, which finds that nicotine depresses the brain's ability to "feel pleasure leading to withdrawal symptoms similar to those giving up cocaine, amphetamines, heroin and alcohol. They conclude: "The decreased function in brain reward systems during nicotine withdrawal is comparable in magnitude and duration to that of other drugs of abuse and may constitute an important motivational factor that contributes to craving, relapse and continued tobacco consumption in humans" ¹⁴³ .

¹ Majority Staff, Subcommittee on Health and the Environment, US House of Representatives, 1994, quoted in. R. Cunningham, *Smoke and Mirrors, The Canadian Tobacco War*, International Development Research Centre, 1996, p156

^{2 2} Quoted in *Report of Special Master: Findings of Fact, Conclusions of Law and Recommendations Regarding Non-Liggett Privilege Claims, Minnesota Trial Court File Number C1-94-8565*, 1998, 8 March, {Minn. Plaintiff's Exhibit 44 (1) BATCo 301083862, p 863 }

³ Quoted in *Report of Special Master: Findings of Fact, Conclusions of Law and Recommendations Regarding Non-Liggett Privilege Claims, Minnesota Trial Court File Number C1-94-8565*, 1998, 8 March, {Minn. Plaintiff's Exhibit , 38 (1), BATCo 301083862, p 863 }

⁴ BAT, *The Effects of Smoking*, 1962, 13 February {Minn. Trial Exhibit 11,938 }

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- ⁶ H. Geissbuhler, C. Haselbach, *The Fate of Nicotine on the Body*, Batelle Memorial Institute, 1963, May {1213.01}
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- ¹⁶ Tobacco Research Council, *Review of Activities 1963-66*, 1967, London [L&D UK Ind 27A]
- ¹⁷ SJG/BGM, BAT Group Research, 1968, 9 April [Pollock 24]
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- ²⁰ D. Wood, Aspects of the R&DE Function, Notes for a Talk, Given at Chelwood, 1969, {1184.02}
- ²¹ R.D. Carpenter, Memo Re: RJ Reynolds Biological Facilities, 1969, 3 October {Minn. Trial Exhibit 2545}
- ²² Philip Morris Vice President for Research and Development, Why One Smokes, First Draft, 1969, Autumn {Minn. Trial Exhibit 3681}
- ²³ Tobacco Research Council, *Review of Activities 1967-69*, 1970, London [L&D UK Ind 27B]
- ²⁴ R. Kluger, *Ashes to Ashes - America's Hundred-Year Cigarette War, the Public Health, and the Unabashed Triumph of Philip Morris*, Alfred A. Knopf, New York, 1996, p371
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- ²⁸ Quoted in *Report of Special Master: Findings of Fact, Conclusions of Law and Recommendations Regarding Non-Liggett Privilege Claims, Minnesota Trial Court File Number C1-94-8565*, 1998, 8 March, {Minn. Plaintiff's Exhibit 43 (1), RJR 500915683, p688}
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