

Commitment Passage

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Extrapsychic mechanisms. Devices of the extrapsychic kind involve arranging for either physical or social action upon the person's future motivational state. These have been recommended since ancient times, not only in the literary example of Ulysses and the Sirens, but in the physician Galen's advice to the person trying to control his passions: This person should find someone who will "disclose his every action which is wrong... none of us can succeed unless he has someone to point out his every error (1963, p.44)." Many are ingrained in the culture of a community. For instance, the economist Alfred Marshall observed early in this century that small vendors survive in poor neighborhoods despite their high prices because large stocks of a good "tempt to extravagance." For instance, those "who cannot keep away from any alcohol they may have in the house... pay the retailer a very high wage for taking charge of their stock of it, and serving it out to them a little at a time (1921, p. 814)."

Extrapsychic controls are widely proposed in behavior therapy manuals (Stuart and Davis, 1972, pp. 61-98; Thoreson and Mahoney, 1974). A person who is trying to avoid overeating for instance, has been variously advised to take a drug that suppresses his appetite, to keep fattening foods out of the house (perhaps by the expedient of going shopping only when he has just eaten), or even to have his jaws wired together. If he can enlist the cooperation of a friend, he might ask the friend to put pressure on him when he seems about to overeat, deposit money with the friend which is to be given away whenever he overeats, or simply make a public statement of his intention to lose weight so that he will look foolish if he does not. Psychodynamic therapists have described how a person may act up in order to attract the attention of someone in authority, who will then guard him and prevent the occurrence of more serious impulsive behavior. This maneuver has been called 'asking for controls.'

In situations where a temporary preference arises regularly, even pigeons will sometimes learn a precommitting operant, and will perform it regularly once it is learned. In the basic experiment, pigeons were periodically offered a choice between a small, immediate food reward and a larger food reward a few seconds later (Ainslie, 1974). All subjects made their choice in favor of the immediate reward on virtually all trials. If several seconds before the choice was due to come up again they were allowed to make a response that rendered the smaller reward unavailable, some of the birds came regularly to choose this precommitment. These birds did not make this response in control conditions where it had no effect, where it was required to make the earlier reward available, or where it was made possible only a very short time before the choice was due to be offered. Pigeons learn a precommitting operant even more readily when it is programmed on a separate key (Hayes et. al., 1981). Similarly, rats will learn to press a bar that commits them to accept a smaller, earlier electric shock and thus avoid a larger later one; their likelihood of making this commitment is proportional to the delay before the earlier shock is due (Deluty et.al, 1983). Thus at least one kind of device to forestall temporary changes of preference can be learned in the absence of 'higher' mental functions, entirely on the basis of the differential effect of the better outcome before the poorer outcome becomes dominant.

The potential committing power of extrapsychic devices is obviously variable, and they also depend on what the environment makes available. When their clinical effectiveness has been studied, they have been shown to be most effective against temporary preferences in the addiction range, particularly in the form of social support groups-- against alcoholism (Alford,

1980), opiate abuse (Nurco & Makofsky, 1981), gambling (Scodel, 1964), and the social withdrawal of schizophrenics (Low, 1976). Contracts enforced by fines have been found to be effective against smoking, but, as we would expect, only for as long as the contract stays in force (Paxton, 1981). Drugs to reduce unwanted urges are used against targets in the itch and pain ranges as well as addictions, but in the absence of additional therapies they have produced disappointing results when deployed against alcoholism (Fuller & Roth, 1979; Azrin et.al., 1982), overeating (Munro, 1979), pain behavior (Fordyce & Steger, 1979) and phobic avoidance (Marks, 1976).

People who report that this kind of device makes sense for 'someone like' them are slightly more apt to be male than female and to show 'oral' rather than 'obsessional' personality traits (Ainslie, 1987a). However, it is apparent that everyone makes use of extrapsychic constraints where they are convenient, and that societies make it easier for their members to control some kinds of impulses than others by selectively supplying such constraints in the form of social pressure. Social sanctions have usually made it easier for western middle class individuals to avoid opiates than to avoid alcohol or cigarettes, for instance, and easier for Jains to avoid rage than for westerners to do so.

Extrapsychic devices are the most readily discoverable ones. They form a concrete platform from which other devices can be built, but which may also get in the way of other devices, as we shall see.

Control of attention. Repression, which Freud at one time held to be the cornerstone of all defensive processes (1914, p. 16), is said to operate by keeping attention away from thoughts that might lead to impulses:

A repressed instinctual impulse can be activated (newly cathected) from two directions: from within, through reinforcement from its internal sources of excitation, and from without, through the perception of an object that it desires. The hysterical anticathexis is mainly directed outwards, against dangerous perceptions. It takes the form of a special kind of vigilance which, by means of restrictions of the ego, causes situations to be avoided that would entail such perceptions, or if they do occur, manages to withdraw the subject's attention from them (Freud, 1926, p. 158).

Repression can be seen in terms of simple information processing. When deciding whether to pursue a given activity, a person does not call up all his knowledge of it at once, but begins with a label by which he has categorized this knowledge (Shiffrin & Schneider, 1977). He is apt to evaluate his options for further information processing according to the likely payoffs for these options, perhaps arrayed in what has been called a 'sentry matrix' (Bruner et. al., 1956, p. 75). If he has categorized his knowledge of the activity according to its impulsiveness, and the capsule he recalls first tells him that the activity is indeed impulsive, he will know that further review risks revealing it to be imminently available; he may thus be motivated to stop the review at that point.

Such avoidance of further information represents the act of repression. Of course, if he estimates the risk of discovering its availability to be high already, that very estimate may have changed his preference in favor of further review, and the repression will have failed. Furthermore, if the capsule contains information that further review is apt to be unpleasant (using what Williams et.al. call 'affective salience'-- 1988, p. 171), he may decide in his short range interest not to pursue it further. He will then be using repression for its other defensive purpose, maintaining short range comfort. Whatever its purpose, if the person were able to report his

decision to avoid further information it would be called 'suppression' rather than repression, a distinction that is not important for this discussion.

Freud believed that all repression was pathological, and particularly apt to lead to 'hysterical' symptoms (Breuer & Freud, 1895). Normal subjects who say that attention-diverting tactics make sense as impulse controls are indeed more likely to be female, but no more likely than other subjects to report 'hysterical' personality traits (Ainslie, 1987a).

Before Freud's time forgetting about one's impulses was not only a spontaneous behavior but the recommendation of professional advice-givers. For instance, the writer of a book called *Right and Wrong Thinking and Their Results* advised the reader to "avoid discordant thoughts," by distraction if possible and if necessary by "the rule at Donnybrook Fair: 'whenever you see a head, hit it.' The least is not too small to be terminated if it is wrong (Crane, 1905, p.115)." This would seem to be an attempt to describe sheer suppression. Behavioral writers even today advocate 'stimulus control' as a useful way of avoiding impulses (Kanfer, 1975, pp. 309-355; Goldiamond 1965). It is common lore that "if you speak of the Devil, he'll appear." Patients have described to the author being able to 'fight off' panic attacks, dissociative episodes, and even epileptic seizures by vigorously directing their minds away from the feeling that these things were about to occur.

Denial, the misinterpretation of what one notices, may also serve this purpose by distorting information about environmental opportunities for impulses. It is often advocated in the form of hypnosis, particularly against preferences of brief duration like pain (Hilgard & Hilgard, 1975) and panic, although its effectiveness against panic has been limited (Schneck, 1954; Wolberg, 1948). However, psychoanalytic writers recognize denial mostly as serving to avoid painful perceptions rather than as a precommitting device. For instance, White and Gilliland give as examples of denial: (1) a mother denying the recent accidental death of her child; (2) a scientist denying a failure to get a professorship; (3) A widow denying the death of her husband; and (4) a child denying culpability (1975, pp. 78-80). Recently cognitive psychology seems to have rediscovered the pain-avoiding kind of denial as 'cognitive deconstruction' (Baumeister, 1990, p. 92).

The disadvantage of attention control as a defense against impulses is that it may hinder the gathering of useful information, possibly leading to serious gaps in the person's orientation to reality. To impair one's own information gathering can be awkward. J.M. Russell points out in an introspective example that even the need for suppression may need to be suppressed: I suspect that I may be getting seasick so I follow someone's advice to "keep your eyes on the horizon"... The effort to look at the horizon will fail if it amounts to a token made in a spirit of desperation... I must look at it in the way one would for reasons other than those of getting over nausea... not with the despair of "I must look at the horizon or else I shall be sick!" To become well I must pretend I am well (1978, pp. 27-28).

It complicates our classification slightly that some extrapsychic devices operate by controlling attention, the archetype being the wax with which Ulysses stopped his ears to avoid hearing the Sirens. Real life examples would be a gambler's cancellation of his subscription to a betting sheet or an acrophobic's pulling down the blind on his airplane or highrise window. Because they have the comparative stability and also the limited availability of other extrapsychic mechanisms, these overlapping devices will be classified with them, rather than with attention control.

Preparation of emotion. Freud initially included in his concept of repression the disconnection of thoughts from feelings (1895, p. 58), a distinct process he later named isolation of affect: A person pays attention to experiences that would be expected to cause emotionality, but reports feeling no emotion (1926, pp. 120-122, 163-164). This may be understood as an example of precommitment if we notice the effect that an emotion has on subsequent motivation. It is commonly recognized that basic emotions such as anger, sexual arousal and fear are, up to a point, vicious circles. After the emotion has gotten under way, there is a lower threshold for further emotional activity of the same kind, until some satiation point has been reached (Skinner 1953, pp. 235-236, 239-240). If a person expects an emotion to make an otherwise unpreferred reward temporarily dominant, he may commit himself not to choose the reward through early inhibition of that emotion.

A concrete example of this strategy is the advice that used to be given to teenagers in dating manuals on how to avoid sexual intercourse by avoiding foreplay. Avoidance of the emotion usually produced by foreplay would be expected to have the same result. Although there has been little research on voluntary control of the emotional processes, Lazarus has described credible examples from everyday life (1975a, b). With his collaborators, he has demonstrated experimentally how human subjects can learn to voluntarily 'distance' themselves from a stressful film, as confirmed by a reduction in their galvanic skin responses (Koriat et. al., 1972). The recent discovery that people can learn extensive voluntary control of vegetative functions like blood pressure, organ perfusion and brain waves (Kimmel, 1974; Schwartz, 1975) tends to confirm the practicality of voluntarily controlling emotions. Perhaps the most persuasive example is the well-known ability of actors to "put themselves into" their performances, to "make themselves feel it" (Russell, 1978, p. 35; Archer, 1888).

Early inhibition of emotions is probably a powerful means of precommitment, although this device costs whatever reward is dependent on that emotion for its consumption. For instance, the person who controlled his sexual temptations by the early avoidance of sexual affects might run the risk of losing his capacity for sexual enjoyment.

A person can also decrease the attractiveness of a particular activity by cultivating a contradictory emotion. For instance, when entering a situation which he expects to provoke unwanted tender feelings he might forestall these feelings by summoning his rage at the earliest opportunity. Conversely, if he is worried about rage he might cultivate tender feelings. Examples of this device have been discussed under the name of reversal of affect (A. Freud, 1966, pp. 29-40; Freud, 1914, pp. 126-127). This device has also been proposed by behavior therapists, as we shall see presently.

Reversal seems to represent a special case of general strategy: finding activities that reduce one's appetite for, or increase one's appetite for the alternative to, a particular reward. This general strategy has been called reaction formation (A. Freud, 1966, pp. 37-38; Freud, 1926, pp. 157-158). Again Russell points out that this strategy need not be unconscious, but may be pursued deliberately by means of 'affect-constitutive statements (1978).' He identifies private and public verbalizations that are uttered to manipulate mood because of a self-confirming property, although just as often to serve a short range interest as to combat one ("Oh, God! I am going to be seasick!" vs. "I am feeling better already").

Hirschman has recently (1977) pointed out that the description of this strategy antedates Freud by nearly three centuries, having originated in Bacon and Spinoza. Bacon, for instance, commended those who described how to "set affection against affection and to master one by another: even as we use to hunt beast with beast... For as in the government of states it is

sometimes necessary to bridle one faction with another, so it is in the government within (quoted in Hirschman, 1977, P.22)." In the eighteenth century this tactic was sometimes held out as the only practical precommitting device: "Nothing can oppose or retard the impulse of passion but a contrary impulse (David Hume, quoted in Hirschman, 1977, pp. 24-25)."

Where a long range interest cannot forestall a shorter range interest just by cultivating a non-impulsive alternative, it may nevertheless be able to prevail by finding a still more briefly preferred activity that is incompatible with the target activity. That is, a long range interest may ally itself, in effect, with a short range interest to forestall a mid range interest. Recall that an interest which can temporarily dominate a longer range interest may also be temporarily dominated by a shorter range one (v.s. Ch4). This is arguably illustrated by the ancient myth of Atalanta, the swiftest runner alive, who could be married only if she were beaten in a foot race. The myth does not tell us whether she really wanted to be married; but assuming that she did, her interest in winning races undermined her presumably longer range interest in marriage. It was her suitor, Hippomenes, who thought of distracting her from the race, that is, of appealing to a still shorter range interest by throwing glittering apples near her as she ran. The myth would serve our purpose better if the apples had been made of something less valuable objectively than gold, but if Atalanta had dispassionately preferred the gold to winning the race Hippomenes could have simply bribed her. Furthermore, the truth of the myth does not depend on having her suitor, or any outside party, to supply the distraction; if she had despaired of waiting for someone clever enough to deal with her mid range interest in winning races, she could have cultivated some other kind of distractibility that would have set herself up to lose. The point is that Atalanta was not someone who could simply rank her preferences in order, but rather experienced a sequential competition among them, and was finally able to realize her long range interest by appealing to the competitor of its competitor.

Examples from ordinary life are common enough. For instance, a person may have a long range interest in asserting himself in a relationship where he is being bullied, but always shrink from doing it when the opportunity is present. This interest might need to find a short-term interest such as getting drunk, an indulgence the person might not ordinarily allow himself, in order to "get his courage up." Without the help of the long range interest, a mid range interest in avoiding embarrassment might forestall the urge to get drunk. This mid range interest might in turn undermine the person's long range interest in rising above this role in order to stop the bullying. Such relationships are quantified in figure 5-1.

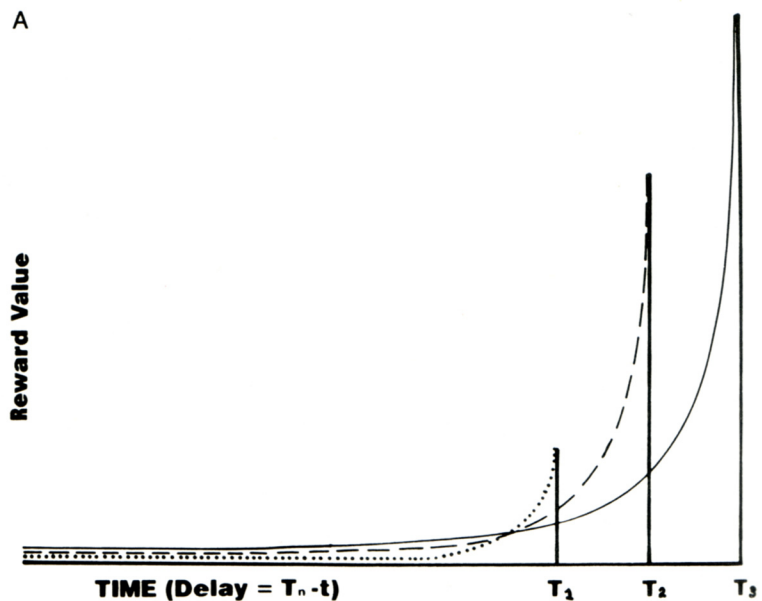
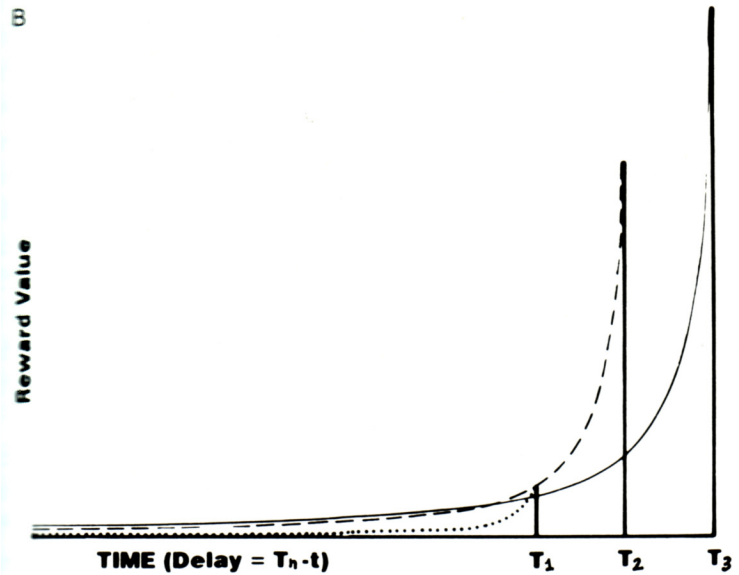
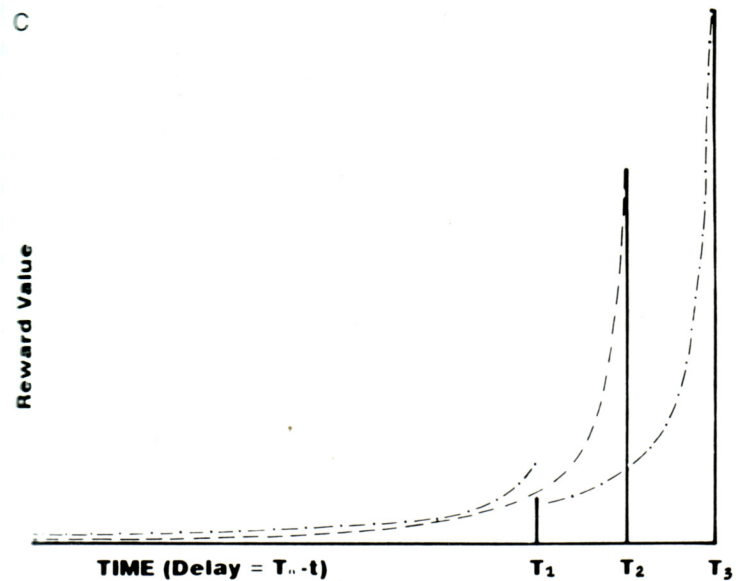


Fig. 5-1 Discounted values of three alternative rewards: A. amounts of 20:70:100, so that, with this timing, the first is temporarily preferred to the second; if the first is "getting drunk," these values will cause it to be chosen in its own right.

B. amounts of 8:70:100, so that, with this timing, the second always dominates the first, which will never be chosen in its own right.



C. amounts of 8:70:100, with the first seen as compatible with the third and thus summed with it; the first will be chosen only when this compatibility exists.



Or consider again our hypothetical person who wants to be generous, a project undermined by miserly character traits which are in turn undermined by urges to gamble (v.s. Ch4). His longest range interest may defeat the miserly, sellout range interest by allying with his addictive interest in gambling. His motive to gamble when it is "for a good cause" (e.g. at a church lottery or casino night for the arts) may be enough to secure his money for this cause even though he would not otherwise be adequately motivated either to give the money away or to gamble. This is because his long range interest is backing the short range urge to gamble, not trying to defeat it. Similarly, his miserly interest may try to forestall urges to gamble by cultivating his fears of being cheated.

The obsessional patient seems to be making a similar encircling alliance when he defeats urges for sexual intimacy by pairing them with vivid, disgusting ideas-- ideas that he would normally avoid, but which, if he does not avoid them, briefly have enough attraction to parasitize the

longer range romantic plans he wants to sabotage. Such cultivation of itch-range activities to combat addictions has been recommended by some behavior therapists, who call them 'coverants' (Homme, 1965; Cautela & Bennett, 1981). For instance, a person trying to give up smoking would be advised to imagine that the cigarette smoke was automobile exhaust or some other disgusting substance. Making smoking the occasion for this kind of emotionally provocative fantasy may spoil the pleasure of smoking somewhat without interfering with longer range interests.

The behavior therapy technique that ostensibly conditions pain or disgust to addiction-range activities like drinking, smoking, and unwanted homosexual arousal probably works by a similar mechanism. Even though patients often stop the unwanted activities, actual conditioned responses are not documented, and patients report still having the appetites that were to have been destroyed by counterconditioning (Wilson, 1978; Hunt & Matarazzo, 1973; Lichtenstein & Danaher, 1976; Clairborn et. al., 1972). Since delivering the aversive stimulus before the person's response works as well as after (McConaghy & Barr, 1973), and having the person imagine the aversive stimuli works as well as actually delivering them (McConaghy et. al., 1981), it is likely that this kind of treatment works not by conditioning but by suggesting vivid, itch-range thoughts that the patient can use to undermine his addictive pleasure.

The disadvantage of the emotion control tactic seems to be that the activities which forestall a particular temporary preference may not happen to be otherwise productive in the long run, and they may thrive to the point that they represent nuisances in their own right. Obsessional thoughts seem to be an example of this, but iatrogenic examples from coverant therapies have not been reported. There is also the potential that short range interests will look for long range ones to protect them. When Elster's cream cake eater (v.s. Ch 4) says, "I wish I was less vain," he becomes suspicious of this lofty goal: "But do I think that only when I wish to eat cake? (1989a)" In any case, the need to maintain a close balance of emotions might greatly reduce the person's reward-getting efficiency.

Some extrapsychic devices operate by controlling emotions. For instance, naloxone spoils the appetite for opiates, and alcohol facilitates anger as in the case just described. As with the physical controls on attention, their properties are determined more by their extrapsychic mechanism than by their psychological effects, and they should thus be classed with the extrapsychic devices.

The distinction between controls on attention and on emotion is sometimes harder to make. Information processing is part of any mental activity; the cultivation or inhibition of an emotion is apt to be experienced as 'getting one's mind' on or off that emotion. Whether the person's intent is to restrict the processing of information or to prepare an emotional climate may sometimes be just a matter of emphasis. For instance, it is hard to separate the two processes in the observations of Mischel and his co-workers:

Around the age of five children understand a gratification delay problem but cannot yet solve it internally with any regularity (Mischel & Mischel, 1983). This opportunity has been exploited in several experiments. Mischel and Ebbeson (1970) gave children their choice of an unpreferred food immediately or a preferred food if they could wait fifteen minutes without eating. The children devised 'self-distraction techniques' to take their attention off the food. These usually succeeded if the food was not present. A similar study by Mischel, Ebbeson and Zeiss (1972) found that children could defer eating longer if given things to play with or think about. It could be argued that the successful techniques were examples of attention control, ways for the subjects to 'forget' or mentally block the information that a tempting food was imminently

available. However, subjects waited longer when they could look at pictures of the reward they were waiting for than if shown irrelevant pictures (Mischel & Moore, 1980). Further research by the same group showed that the crucial ingredient of delaying consumption was for the children to think about the reward in non-consummatory ('cool') ways or to think about the task of delaying itself, so as not to stimulate their appetites (Mischel & Moore, 1980; Mischel & Mischel, 1983). Interviews showed that the older children were sophisticated about this strategy; some had even hit upon the kind of 'coverant' described above: "Think about gum stuck all over [the marshmallow rewards] (Mischel, 1981)," or "I won't eat the marshmallows 'cause they're all moldy and spoiled (Mischel & Mischel, 1983)." Thus successful delayers in these experiments seem to have been modulating their affect more than blocking information about the imminent availability of the food rewards. However, it may be difficult in practice to determine what mixture of these two endeavors a subject is using.

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