COGNITIVE APPRAISAL OF LIFE EVENTS PRECEDING DEPRESSION

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Abstract

Psychological theories of depression need to account for the finding that as many as 90% of onsets of clinically diagnosable depression in patients and in community samples are reactions to severely threatening life events and difficulties. Less severe events and difficulties, though producing mood changes, do not result in clinical depression. The majority of severe events and difficulties are psychosocial losses and disappointments. A cognitive theory is presented and related to data on severe losses, such as unemployment. The distress which results from a loss or disappointment depends on the appraisal of discrepancy between an expectation and the actual behaviour of an other person or persons with whom some explicit or implicit mutual plan was in progress. The distress becomes depression when the plan was one which fulfilled a major goal by which the sufferer defines her- or him-self, and when she or he has no alternative plans available to fulfil this goal.

Although it is now clear that life events are capable of provoking depression, a number of issues remain unresolved. When, for instance, does a life event lead to depression as opposed to some other state; and what kinds of cognitive schemata apprehend life events in such a way that depression results? This paper is devoted to discussing these two questions. First some empirical studies will be reviewed. Then a theory drawing on cognitive and linguistic work on plans and the understanding of social interaction will be presented.

Conditions for onset of depression

Some 90% of onsets of depression detected in community samples and reaching levels of clinical significance as defined, for instance, by the 'case' level of Brown and his colleagues, (Finlay-Jones et al., 1980) are occasioned by life events or chronic difficulties which pose severe, long term threats to the people surfering them (Brown and Harris, 1978). Paykel (1979) has also found that in 89% of depressed out-patients there was a precipitating factor of some kind.

What, then, affects whether a threatening event or difficulty is an occasion for depression? There are two principal considerations: the severity of the event or difficulty, and the availability of alternative social roles.

As to severity: much of the empirical evidence for the reformulated helplessness hypothesis of Abramson et al. (1978) has been from reactions to failure in performance of laboratory tasks. More recently, doing less well than expected in mid-term college exams has also been studied (eg. Metalsky et al. 1982). Such events, although upsetting, are not severe in the spectrum of human experience. While these failures can result in depressed mood, as shown by adjective checklists, they do not typically result in clinically significant depression. It is mainly events which threaten the person severely and in the long term, such as a

bereavement, becoming involuntarily unemployed after a full employment history, the break-up of an established love relationship, and the like, which have been shown to be capable of provoking depression at the case level.

Brown and Harris (1978) have shown that events rated as severe (on their Life Events and Difficulties Schedule, LEDS) in women depressed at the case level, had occurred at 3.7 times the rate for non-depressed women, whereas there was an approximately equal rate of the less severe events for depressed and non-depressed women. Thus, severe events increase the risk of depression, whereas events rated as non-severe, which include less threatening though still upsetting events, and events conferring threat lasting less than a week, were not associated with increased risk of depression at the case level at all.

Even with a severe event or major difficulty, depression at the case level is unlikely. Brown and Harris found only about a fifth of the women suffering such happenings which they call 'provoking agents', became clinically depressed. To account for why all the women suffering a provoking agent did not become depressed they postulated four sociologically defined 'vulnerability factors'. The most important was lack of an intimate, supportive relationship, which, I will argue, provides an alternative role for the sufferer of the adverse event.

A statistical interaction in which the rate of depressive breakdown is higher in the combined presence of a provoking agent and lack of social support, than with the sum of effects of provoking agent and lack of social support acting alone, has now been demonstrated in ten studies. As well as Brown and Harris's, it has been found in three replications (Brown & Prudo, 1981; Costello, 1982; Campbell et al. 1983), four related retrospective studies (Paykel et al. 1980; Anashensel & Stone, 1982; Murphy, 1982; Solomon & Bromet, 1982) and two prospective studies (Henderson et al., 1981; Bolton & Oatley, 1983,1984).

Table 1 shows the main results of this latter prospective study of 49 newly unemployed men. The men's depression scores were measured by the Beck Depression Inventory (BDI, Beck et al., 1961), and the men were interviewed for putative vulnerability factors of amount of social interaction outside working hours and the extent of self motivation. Depression measurements and interviews took place immediately following job loss (Time 1), and again six to eight months later (Time 2). Similar depression measurements and interviews were conducted with 49 matched controls who remained in employment. Among those who became and remained unemployed small amounts of social interaction at Time 1, predicted depression at Time 2, with $p < .05$.

Five of the men who became and remained unemployed had increases in their BDI score of 10 or more, to a level of 18 or more, which is above the level of 16 defined by Rush et al., (1978) as a score on the BDI indicating clinically significant depression.

The amount of social interaction outside ordinary working hours, and the score on self-motivation, were not differentially associated with employment status, and they remained constant over the six-month period in all our subjects, showing that these were

true vulnerability factors, not factors confounded with the event of becoming unemployed or with depression.

Table 1. Depression scores on the BDI of the Unemployed, the Re-employed and the Employed groups, at first interview, (Time 1) and at second interview six to eight months later (Time 2). Adapted from Bolton & Oatley (1984).

Unemployed,	N=20:	Time 1	7.7 *
			$p < .01$
		Time 2	10.8 +
		(includes N=5 with BDI change > 10)	
Re-employed,	N=15:	Time 1	8.9 *
			$p < .01$
		Time 2	6.1
Employed,	N=45:	Time 1	6.2 *
			NS
		Time 2	7.3

* At Time 1, BDI scores for all groups were not significantly different.

\+ At Time 2, Unemployment x Self motivation was significant with $p < .05$ in the Unemployed/Re-employed comparison, and Unemployment x Social Support was significant with $p < .05$ in Unemployed/Employed comparison on multiple regression analyses.

We propose (Oatley & Bolton, 1984) that becoming involuntarily unemployed is typical of a severe life event. It removes the possibility of enacting a role which is central in a person's life. Our hypothesis is that people experience themselves as worthwhile primarily in predictable social interaction. Thus, loss of an important role is threatening because it removes the possibility of that experience. Vulnerability, then, is a factor of personality or lifestyle in someone who has lost a central role, which expresses itself as a lack of alternative roles within which to experience herself or himself.

The men in our unemployment study who became depressed were those who had little interaction with family or friends outside work. It was as if they had located their sense of themselves in a single kind of activity, i.e. work. While that activity was available they did not suffer psychiatric symptoms. It was the lack of other social interaction which made them vulnerable when they became unemployed. We postulate that underlying the small amount of social interaction they had outside work, was a relatively stable disposition to rely on external structure to provide social interaction for them. While it did so, they were well, but when it was lost, they became depressed.

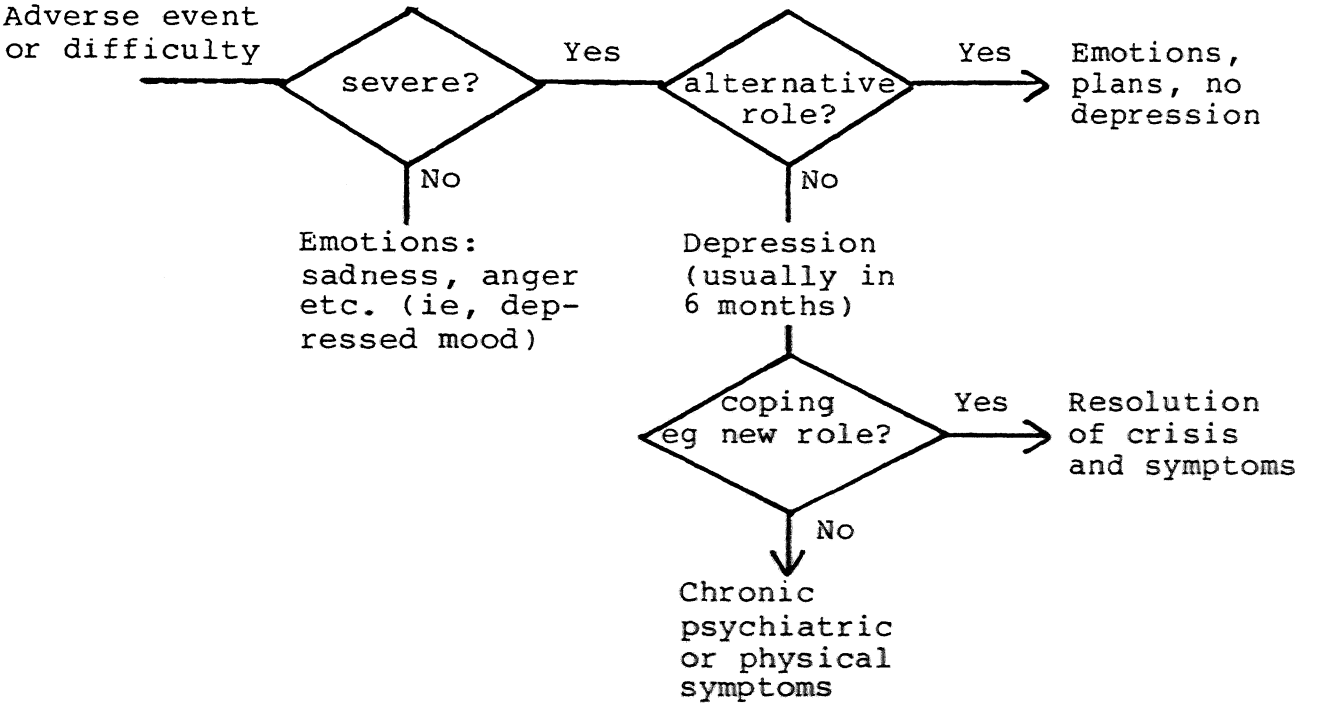
As well as the vulnerability of no readily available alternative roles, lack of perceived possibilities for generating new roles needs to be considered. In the unemployment study we found that in

addition to those who stayed unemployed, and who on average became more depressed, 15 men who could be re-interviewed had found new jobs. They were significantly less depressed that at the time of job loss ($p < .01$). As a group they had scored significantly higher ($p < .05$) in self-motivation at the time of job loss than those who did not get new jobs.

To summarize: in urban Western society, the most common kind of clinically significant depression is occasioned by a social loss or disappointment which is severe in its long term threat as defined by the LEDS. Depression only occurs, however, when the person has no roles which provide alternative sources of self-experience for that which was lost, and lacks resources for generating new ones.

In diagramatic form, an adverse event or difficulty occurs, and is experienced as distressful emotion, see Figure 1.

Figure 1. Diagram of outcomes of an adverse life event.



If it is not severe or long term, the distress subsides, perhaps after the person had dealt with whatever was causing it either mentally or behaviourally. The ways of dealing with such events are well described as coping styles (see e.g. Folkman and Lazarus, 1984; Metalsky, et al., 1982; Silver & Wortman, 1980). In the short term, being able to cope with the adversity requires other available forms of social interaction. If the event is severe, and is not coped with, then depression may supervene.

If not, the question becomes one of the resources, personal and otherwise, for generating new roles within which to experience the self. If the person can not manage this, she or he either becomes chronically symptomatic in a psychiatric sense, or after a somewhat longer latency, breakdown of the immune response system

can occur (see eg. Totman, 1982) which may predispose to physical illnesses including cancer.

The question of how one might maintain a sense of oneself following a severe event leads to the second part of this paper: the cognitive representation of life events and of social roles. I would like to propose that life events are not just events in the outside world: they are usually the outcomes of personal plans. A sense of oneself is maintained by means of mental schemata which support social goals and plans, compiled within complex, well-practiced planned structures of activity, best thought of as 'social roles'.

Cognitive representations of goals and plans

As Fraser Watts has argued earlier in this symposium, the need in understanding depression is for cognitive theory which takes into account content as well as process. The proposal here is that the kind of cognitive theory which is adequate to understanding depression has to be one which includes, as content, the idiosyncratic and cultural goals and plans of the individual, for which Glenys Parry has also argued.

Empirically two kinds of life event and plan have been considered in trying to understand depression. In one kind the formulation has been primarily social, such as for instance Paykel's (1969) designation of 'exit events' when someone important leaves the scene. The second kind are those conceptualized in terms of instrumental learning, such as Seligmans's (1975) hypothesis of 'helplessness' following non-contingent adversive reinforcement. Whereas the first of these is good for discussing losses such as those that are most common in epidemiological surveys such as Brown and Harris's, the second seems better for discussing how one might have or lose a sense of competence, or 'mastery'.

I would argue that rather than assimilating the social to the instrumental as has been the prevailing tendency in cognitive approaches to depression (cf. Coyne and Gotlib, 1983), an important step in constructing an adequate cognitive theory of these matters, is to assimilate the instrumental to the social. I will assume therefore that the plans which need to be considered in understanding distressful emotions and depression may involve issues of competency, contingency, controllability and so forth, but these issues are secondary to the social nature of the plans involved. The importance of plans is in the predictablity of long term mutual relationships that they support (cf. Antonovsky, 1979), rather than mainly in controllability of the environment.

In the first part of this paper I referred to people experiencing a sense of themselves in the enactment of roles. In our society there are many such roles, as employee, mother, friend, spouse, psychologist..., and so on, even, as is the case for me now, as speaker at a conference. I would argue that we do not take part in these roles just as optional activities, but that, following Goffman (1961), what we mean by a sense of self, is precisely the experience afforded by taking part in an activities such as social roles. To have a sense of self in an interaction is to sustain a plan whose essence is social: that is to say it requires mutual

participation by at least two people who share and follow rules of the occasion. I could not experience myself as speaker without you as listeners, nor any of us experience ourselves as conference-goers without speakers* All of us follow well understood, though largely implicit, rules which bring these occasions into existence and give them meaning.

Following G.H.Mead (1912), Vygotsky (1930) and others, I would also argue that insofar as it is possible to experience a sense of ourselves without the immediate presence of a role other, it is because we have symbolically internalized role others from childhood onwards. An inner dialogue of the self is not the voice of a lonely individual, but an inherently social sense of oneself with others: with generalized others as Mead argued, with significant others as Sullivan (1953)argued, or with specific others of whom we have individual knowledge.

A human sense of competence, about which there could be attributions of the kind described by Abramson et al. (1978), is also primarily social* Insofar as we feel competent, it is because we can say to ourselves, as it has been said to us, 'That's well done[1]. Insofar as a failure leaves us feeling defeated rather than challenged, it is because of an inner dialogue saying that to fail is to be bad and worthless. Such a dialogue may, by adulthood, be private and individual. but it started off (in Harre's, 1983 terms) as public and collective.

Theoretically, then, the kind of formulation needed is one of actors pursuing intended plans with social meaning - a postulate not fundamentally different from Freud's (e.g. 1916-17) assertion that all human behaviour is intended.

Miller et al. (1960) in 'Plans and the Structure of Behavior[1], argued that many distressful emotions are to be understood in terms of interruption of a plan. The questions for cognitive psychology then become, how do we represent personal plans, and how do such representations accomodate the empirically observed differences between emotional distress in the face of failure and clinical depression which includes emotional distress, but which also has components crucially dependent on severity of the event and the availablity of alternative kinds of interaction?

The main area in which cognitive psychologists have made progress in understanding the structure of socially enacted plans and the emotional consequences of outcomes, is in computational and linguistic work on story understanding. Thus for instance Ruiranelhart, (1975), Dyer (1983) and Wilensky (1983) have shown that the ability to understand stories includes understanding that plans typically have emotional outcomes. Oatley and yuill (1984) have found that people attribute emotions to visually neutral characters in a cartoon film when what they take to be the character's social plans are interrupted, and attribute depression and even suicidal tendencies **when** that **character *s** role seems insupportable. The analysis of stoxy understanding Is appropriate to contemporary approaches to depression and life events, since **nere** too researchers listen to stories of their subjects[1] lives, and make judgements about the threatfulness of the **outcomes.**

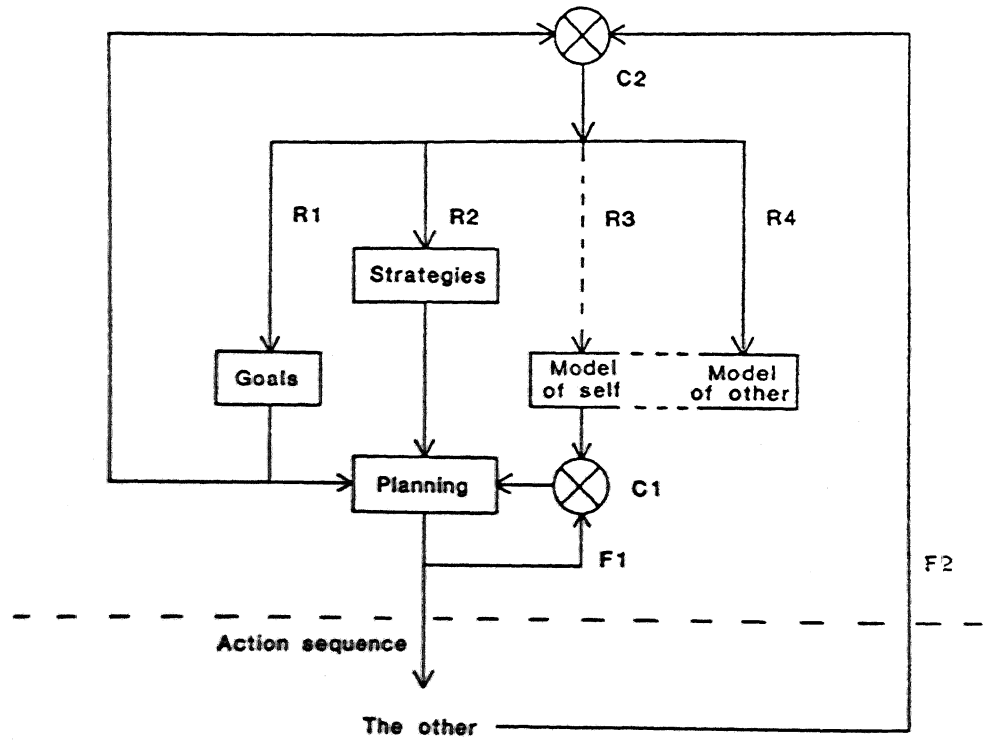
Much of the theoretical work in story understanding Is on the

plans of individual actors. What is required to understand depression, however, is to take more seriously the social nature of the plans involved. This requires a theory of how it is possible to construct and sustain a plan which is not individual, but mutual. A role relationship is just such a coherent set of mutual plans, and the question becomes: 'What is the cognitive structure necessary for sustaining a role relationship?'

Essential to such plans are not just the actors' intentions and the resources for instrumental solutions, but as Bruce and Newman (1981) have shown, a model of the intentions of the others with whom one is interacting. As Power (1982) has put it, even more clearly, what is required is that each participant in a mutually intended plan intends the plan, and has a model of her/his own intentions, and a model of the other's intentions and knowledge.

Figure 2 is a diagram of a schema which is the minimum necessary for one of the two actors in a single set of mutual plans, i.e. in a predictable role relationship. It incorporates this feature suggested by Power, and it is a somewhat formalized cognitive representation of the structure of the self as described by Mead.

Figure 2. Diagram of a role schema for supporting one half of an agreed relationship with mutual intentions.



In this role schema are represented the following. (a) There is at least one goal and a coherent set of sub-goals. If the major goal is one by which a person defines her or his worth, then it is called a self-definition goal, e.g. perhaps to be loved, or respected in a certain kind of way. (b) Next there are plans, which generate action towards a social other or others, and insofar as the plans are practiced and stored they might be called 'strategies'. This is not necessarily the best term: they are the social equivalent of William James's (1892) habits. These goals

and plans represent the agentic self, an aspect of James's and Mead's 'I'. (c) As action is directed towards the other, it has consequences which either do or do not fulfil the goals which underlie the plans, and a comparison is therefore made between the actions of the other and the goals. This comparison is designated C 1. Mismatches at this comparison are experienced as distressful emotions, the interpersonal equivalent of unpleasant surprises, and depending on the interpretation of them and the attributions that occur, they might be experienced as anger, sadness, depressed mood, envy etc. and other affects of the kind often measured in affect checklists. (d) Because the plans in question are mutual, it is necessary, not only to have a model of the other person's intentions and knowledge, but also of one's own. I.e. mutuality is crucially dependent on shared assumptions, best conceptualized as rules. The model of oneself here corresponds to Mead's 'me', the aspect of self capable of being represented as an object. (e) An inner dialogue, shown as the feedback loop F 2, capable of being run in anticipation, or concurrently with, or after an encounter. It monitors actions and intended actions, comparing them (as shown at C 2) with the rules specified in the model of self and other.

A schema of at least this complexity is necessary to support predictable sets of mutual plans, i.e. roles.

The typical severe life event can now be defined theoretically. Whereas, a distressful emotion results when there is a discrepancy between what was thought to be a mutually agreeable goal of the relationship, and the action of the role other, a severe event is something that disrupts a mutual relationship completely, e.g. discovery that a spouse is having an affair, or an employer announcing that one is being made redundant.

The essence of the typical life event is that, in a role which was fulfilling a self-definition goal, the cognitive representation of the other, and that other's actual behaviour become radically incompatible. The role relationship as previously and mutually defined, can no longer be sustained. Thus the severe life event is not a mental state, and not a sociological happening. It is a major discrepancy between a mental representation necessary for supporting mutual plans, and an aspect of the other's behaviour which it was anticipating.

A full syndrome of clinically significant depression has three major aspects, predicted from this theory. It includes the cognitive experience of the loss of sense of self, or a distortion of that sense of self that had been derived from the predicatable enactment of the role. It includes a variegated set of emotions including sadness, anger, longing, anxiety etc, which emerge in wavelike fashion as the sufferer tries to interpret the discrepancies that have occurred, (cf. Katz, 1981). It includes interpersonal strategies, often of a regressive kind like sulking or attempting to engage others in rescue, by which the sufferer tries to reinstate social interaction in lieu of the well practiced role enactment that had been lost.

Conclusion

Life events are not just unpleasant things that happen. They are primarily social. Their significance_ is in the structure of people's social relationships: that is to say, in outcomes of mutual plans. It is indeed within the structure of mutually agreed rules that what we experience as meaning arises, and it is, partly the sense that life is meaningful that is lost in depression.

We are now studying factors which affect the success with which people resolve crises following major disruptions of their mutual plans, and of how effectively they use therapy. The factors which seem potent in therapy, are as John Teasdale will argue in the next paper those which affect mainly the maintenance of symptoms.

Most commonly, clinically significant depression is not just a change of mood or a disorder of emotion. It is a crisis in a person's major life plans. As Gramski has observed: 'The crisis consists precisely in the fact that the old is dying and the new cannot be born; in this interregnum a great variety of morbid symptoms appears[1]. Symptoms include the loss of that sense of self that had derived from a predictable and meaningful mutual interaction, tumultous emotions, and attempts at coercive interpersonal manoevre. The crisis is resolved, with or without therapy, when the person constructs new plans to fulfil self definition goals.

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