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SELF-FOCUS AND DEPRESSION: THE THREE-PHASE MODEL

Shinji Sakamoto

Otsuma Women's University, Tokyo, and National Centre of Neurology and Psychiatry, Chiba, Japan

Abstract. Some studies suggest that self-focus contributes to the onset of depression. A new cogitive model of depression, the three-phase model of self-focus and depression, is presented here to explain the mechanism of the onset and maintenance of depression. In this model, the relationship between self-focus and the course of depression is divided into three phases: (1) initiation, (2) operation, and (3) maintenance. Previous studies examining the relationship between self-focus and depression are reviewed, within the framework of the model: (1) studies investigating situations that will initiate self-focus; (2) studies examining the effects of self-focus on behaviour, cognition, and affect; and (3) studies examining the duration of self-focusing. The model is then presented and propositions derived from it are outlined. Finally, suggestions are made for preventing depression, for recovery from it and for the scope of application of the model.

Keywords: Depression, self-focus, cognitive model, self-preoccupation, maintenance.

Introduction

Self-focused attention has recently become recognized as an important factor in the development and maintenance of depression (Ingram, 1990; Lewinsohn, Hoberman, Teri, & Hautzinger, 1985; Pyszczynski & Greenberg, 1987). Self-focused attention is defined as an awareness of self-referent, internally generated information that stands in contrast to an awareness of externally generated information that is derived through sensory receptors (Ingram, 1990).

The term ''self-focus'' includes self-awareness (state) and self-consciousness (trait). Moreover, the aspect of self that is focused on is divided into private and public (Fenigstein, Scheier, & Buss, 1975). Whereas private self-focusing is concerned with attending to one's inner thoughts and feelings, public self-focusing is defined by a general awareness of the self as a social object that has an effect on others. Because previous studies have reported significant correlations of depression with private self-consciousness, not with public self-consciousness (e.g., Smith, Ingram, & Roth, 1985), the present article is concerned only with private self-focusing.

Smith and Greenberg (1981) suggested that because of parallels between observed depressive phenomena and self-focused attention (e.g., increased inclination to attribute

Reprint requests to Shinji Sakamoto, 4-281 Nakamura-cho, Minami-ku, Yokohama 232-0033, Japan.
Email: shinji.sakamoto@otsuma.ac.jp

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a causal role to the self, lowered self-esteem, and increased accuracy of self-report, see Musson & Alloy, 1988), depression might be mediated by increased self-focus. For example, because self-focus increases the tendency to make internal or dispositional attributions for one's behaviour and outcomes (e.g., Duval, Duval, & Neeley, 1979; Duval & Wicklund, 1973; Fenigstein & Levine, 1984), and internal attribution for failure makes people depressed (McFarland & Ross, 1982; cf. Abramson, Seligman, & Teasdale, 1978; Sweeney, Anderson, & Bailey, 1986), those who are high in self-focus may tend to feel depressed after negative events.

Correlational study

A moderate correlation has been found between private self-consciousness scale scores (Exner, 1973; Fenigstein et al., 1975) and scores on depression scales (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961; Dempsey, 1964). For example, Ingram and Smith (1984) reported significant correlation between the Private Self-Consciousness Subscale (PrvSC; Fenigstein et al., 1975) and the Beck Depression Inventory (BDI; Beck et al., 1961) ($r(166) = .23$, $p < .003$–$r(213) = .32$, $p < .001$). Smith et al. (1985) found that the BDI was significantly correlated with the PrvSC ($r(114) = .27$, $p < .005$), but not with the Public Self-Consciousness Subscale. Similar results were found not only among undergraduates (Conway, Giannopoulos, Csank, & Mendelson, 1993; Larsen & Cowan, 1988; Smith & Greenberg, 1981) but also among clinical samples (Ingram, Lumry, Cruet, & Sieber, 1987). However, as shown in the somewhat weak correlations between self-focus and depression, the relationship between self-focus and depression is not straightforward. That is, those who are high in self-consciousness are not always depressed. Therefore, some differences may exist between depressed and nondepressed people in the results of self-focusing.

Three-phase model of self-focusing and depression

In the present article, the three-phase model of self-focus and depression that aims to explain the onset and persistence of depression is presented. Before describing the model, previous studies are briefly reviewed; a cognitive taxonomic system that the three-phase model is based on is then explained.

In the three-phase model, the relationship between self-focusing and depression is divided into three stages: (1) initiation, (2) operation, and (3) maintenance of self-focusing. Therefore, previous studies investigating both depression and self-focus will be reviewed in three parts: (1) Studies investigating situations that will initiate self-focus; (2) Studies examining the effects of self-focus on behaviour, cognition, and affect; and (3) Studies examining the duration of self-focusing.

Review of previous studies

Studies about self-focusing situations

Previous studies have reported that, in some situations, depressed people were more likely to focus on the self than were nondepressed people (Greenberg & Pyszczynski,

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1986; Pyszczynski & Greenberg, 1985, 1986, 1987; Sakamoto, in press). Pyszczynski and Greenberg (1987) stated that depressed people preferred self-focusing after failure and avoided it after success (''depressive self-focusing style''), whereas nondepressed people showed the reverse pattern (Pyszczynski & Greenberg, 1985, 1986). Pyszczynski and Greenberg (1986) reported that after succeeding, failing, or not working on a task, participants were allocated 10 minutes to use between working on two puzzles, one of which was positioned in front of a mirror, a self-focusing stimulus. Consistent with their previous findings (Pyszczynski & Greenberg, 1985), the depressed participants spent significantly more time working on the self-focusing-enhancing puzzle following failure rather than following success. When compared with depressed participants in the no-outcome-control condition, depressed successful participants spent significantly less time working in front of the mirror, and depressed failed participants tended to spend more time in doing so (also see, Greenberg & Pyszczynski, 1986).

While the series of Pyszczynski and Greenberg's studies examined self-focusing in laboratory settings, Sakamoto (in press) investigated the self-focusing situations in daily life. A Self-Focusing Situation List (SFSL), containing 58 items, was developed by summarizing the answers to the question ''In what situations do you think about yourself?'' The SFSL was administered to another undergraduate sample ($N = 436$), and the Zung Self-Rating Depression Scale (SDS; Zung, 1965) was also administered to part of this sample ($N = 365$). A factor analysis extracted six factors, Interpersonal Situation (e.g., when I am told something about my appearance by others), Negative Situation (e.g., when I experience something aversive), Positive Situation (e.g., when pleasurable things happen to me), Observer Situation (e.g., while or after seeing a movie or watching a TV programme), the Alone Situation (e.g., when I am alone at home), and Envy Situation (e.g., when I see a person enjoying him/herself). Then, cluster analysis carried out on these six factor scores yielded five clusters: Negative Self-focusing, Low Level of Self-focusing, High Level of Self-focusing, Positive Self-focusing, and Self-focusing When Alone. Those in the Self-focusing When Alone cluster, the participants who prefer self-focusing in situations of being alone and avoid self-focusing after positive events, scored significantly higher on the SDS than other groups.

Thus, with self-focusing situations, the differences between depressed and nondepressed people are that the former tend to prefer self-focus after failure and avoid it after success; the former also tend to self-focus in situations when they are alone.

Studies about the effects of self-focusing

As far as the effects of self-focusing are concerned, some studies have shown that self-focus has a more negative influence on depressed people than on nondepressed people (Gibbons et al., 1985; Greenberg, Pyszczynski, Burling, & Tibbs, 1992; Miklincer, Gerber, & Weisenberg, 1990; Pyszczynski & Greenberg, 1985; Pyszczynski, Hamilton, Herring, & Greenberg, 1989; Pyszczynski, Holt, & Greenberg, 1987; Sakamoto, 1998a; Smith et al., 1985). For example, Pyszczynski et al. (1987, Experiment 2) investigated the effect of self-focus on expectation. In the self-focus condition, nondepressed people had a self-serving expectancy, whereas depressed people did not. Specifically, the nondepressed expected that they were less likely to experience negative events than other

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persons, whereas the depressed expected that they and other persons would experience negative events equally.

Pyszczynski et al. (1989; Experiment 1) found that after heightening self-focused attention, depressed students recalled a larger number of negative events than did their nondepressed counterparts. However, without such a manipulation, this difference did not appear. In Experiment 2 (Pyszczynski et al., 1989), the difference in recalling negative events between depressed and nondepressed groups in the self-focused condition was limited to the self-referent content.

Thus, with respect to the effects of self-focusing, depressed people tend to be more negatively influenced by self-focusing than the nondepressed.

Studies about the duration of self-focusing

There are some differences in the prolongation of self-focusing; depressed people prolong self-focused attention more than the nondepressed (Greenberg & Pyszczynski, 1986; Ingram, 1990; Pyszczynski & Greenberg, 1987; Sakamoto, 1993). Greenberg and Pyszczynski (1986) showed that after experiences of failure, depressed students prolonged their duration of self-focusing. In Greenberg and Pyszczynski (1986, Study 2), the participants' spontaneous self-focus was assessed immediately after a positive or negative outcome and again after 10 minutes. Immediately after the outcome, both depressed and nondepressed individuals spontaneously self-focused more after failure than after success. However, after the delay, the nondepressed participants self-focused more after success than after failure, whilst depressed participants still self-focused more after failure than after success. Sakamoto (1993) showed that after self-focusing was manipulated so that it was heightened, depressed students, compared with the nondepressed, were more likely to remain in that state and less likely to turn their attention to a task that required concentration.

Sakamoto (1998b) conceptualized enduring self-focusing as a trait, and developed the Self-Preoccupation Scale (SPS), which measured both degree and duration of self-focusing. The examples of SPS items were "I am often absorbed into thinking about myself", and "Once I start thinking about myself, I find it difficult to stop". This scale differs from the Self-Consciousness Scale (Fenigstein et al., 1975) in that the former takes the duration as well as the degree of self-focusing into consideration; people high in self-preoccupation tend to focus inwardly and maintain their self-focusing. Sakamoto (1998b) administered the SPS, PrvSc, and BDI, and found that the correlation between the BDI and SPS ($r(225) = .44$, $p < .0001$) was significantly larger than that between the BDI and PrvSC ($r(240) = .20$, $p < .01$). This suggests that the differences between depressed and nondepressed people are found in the duration of self-focusing rather than in its extent.

Thus, these studies showed that depressed people, compared with the nondepressed, are prone to maintain self-focused attention.

Cognitive taxonomy

Before explicating the three-phase model of self-focus and depression, we will begin by referring to a cognitive taxonomic system proposed by Ingram and his colleagues

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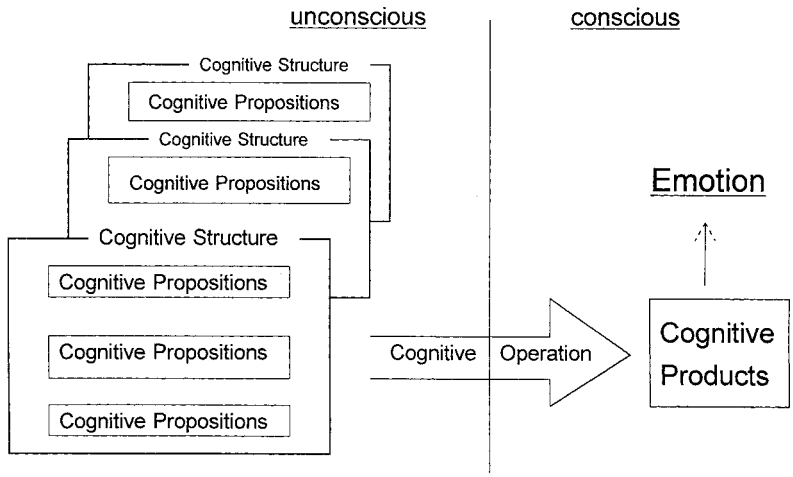


Figure 1. The relationship between cognitive structure, cognitive propositions, cognitive operations, cognitive products, and emotion

(Ingram & Hollon, 1986; Ingram & Kendall, 1986). They proposed that the basic mechanisms of cognition can be viewed as falling into four conceptually distinct categories: cognitive structure, cognitive proposition, cognitive operation, and cognitive products. According to Ingram and Hollon (1986), cognitive structure can be viewed as the way or manner in which information is presented in memory. The examples of cognitive structure are short- and long-term memory, and memory nodes. Cognitive propositions can be viewed as the information or content that is actually represented, or stored in various cognitive structures. The examples of cognitive propositions are episodic knowledge and stored beliefs. Cognitive operations can be seen as the various processes by which the components of the cognitive processing system operate. The instances of cognitive operations are attention and encoding. Finally, cognitive products can be seen as the cognitions that result from the input of information and the interaction of cognitive structures. Thoughts, images, and accessed beliefs are typical examples of cognitive products.

This cognitive taxonomic system can be applied to explain the generation of emotion (Figure 1). Cognitive propositions cannot be recognized in themselves; they are potential and unconscious. If cognitive propositions are processed through cognitive operations, they become conscious (cognitive) products. Then, particular emotions emerge, in some cases, from the cognitive products.

Within this system, the generation of a depressed mood may be explained as follows. Cognitive propositions such as depressive schemata (Beck, 1967, 1976; Kuiper, Olinger, & MacDonald, 1988) and depressogenic attributional style (Abramson et al., 1978) are precedent potential factors. By way of cognitive operations (e.g., activation, self-focusing), the potential cognitive propositions become conscious as cognitive products. For example, through cognitive operations, depressive thoughts and stable, global causal attributions of negative events (cognitive products) will emerge from depressive schemata and depressogenic attributional style (cognitive propositions). The resultant depressive mood will then arise from these negative cognitive products.

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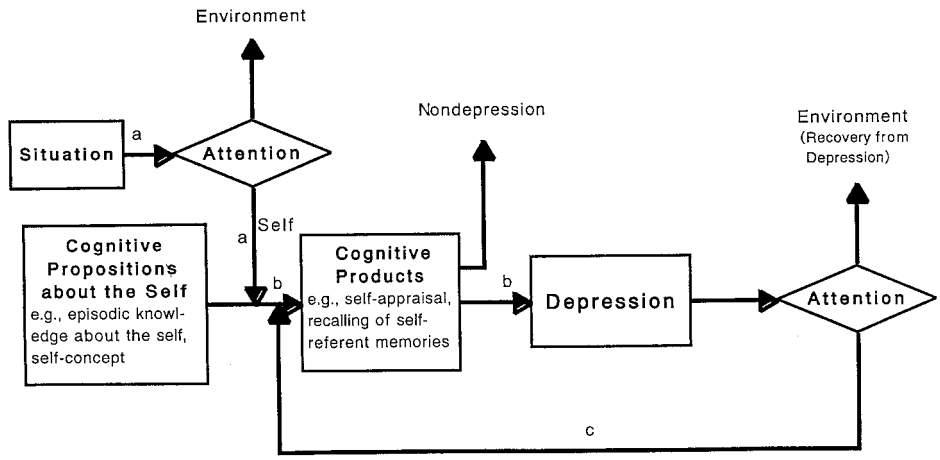


Figure 2. The three-phase model of self-focusing and depression
arrow a = the initiation of self-focusing;
arrow b = the operation of self-focusing;
arrow c = the maintenance of self-focusing

Figure 1 illustrating the relationship between cognition and emotion seems simplistic considering the inverse effect of emotion on cognition (e.g., mood-congruent memory). However, such a simplistic model as Figure 1 is needed to understand the generation of depression from the cognitive viewpoint. Cognitive models of psychopathology assume that distorted cognition should generate psychiatric symptoms (e.g., depression: Abramson et al., 1978; obsession: Salkovskis, 1985), and the current model is in line with these cognitive models. The simplicity of the cognitive models could even be considered a virtue; it could give understandable explanations for psychopathology, and generate testable hypotheses about the relation between psychosocial variables and the symptoms. It could also give suggestions for intervention and prevention (e.g., Abramson et al, 1978).

The three-phase model of self-focus and depression

In the three-phase model of self-focus and depression, the relationship between self-focus and the course of depression is divided into three stages – the initiation, operation, and maintenance of self-focusing (Figure 2). The first stage (initiation; arrow *a* in Figure 2), people turn their attention to the self. This may occur, for example, after experiencing failure or success (Pyszczynski & Greenberg, 1987), after looking at one's own figure in a mirror (Duval & Wicklund, 1972), or in "alone situations" (Sakamoto, in press).

This change of focal attention from the environment to the self may occur automatically (i.e., reactions to internal and external stimuli) or intentionally. For example, one may self-focus intentionally when introducing oneself and when writing in a diary. In an experimental procedure that heightens self-attention (Fenigstein & Levine, 1984; Pyszczynski et al., 1987), participants were asked to construct self-referent stories; the

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participants were asked to write a short story using as many words as possible from a list of 20 words including "I", "mirror", "alone", and "me".

One can also turn one's attention from the environment to the self by responding to environmental stimuli (automatic attention shift). For example, to look at one's figure in a mirror can turn one's attention to the self (Duval & Wicklund, 1972). Other cues of self-attention may also initiate self-focusing; by hearing particular songs or by visiting particular places that strongly connect with one's episodic memory, one may turn attention to the self and think about these memories.

In the second stage (operation of self-focusing; arrow *b* in Figure 2), stored self-referent information (cognitive propositions) is processed, and cognitive products become conscious. The examples of self-referent cognitive propositions about the self are attributional style (Abramson et al., 1978), stored beliefs, self-concept, and memories of the self. The instances of the cognitive products about the self are attributions (Abramson et al., 1978), self-images (Sedikides, 1992a), conscious beliefs, self-appraisal (Carver & Scheier, 1981; Duval & Wicklund, 1972), and recalled memories of the self.

If the content of cognitive products is negative, a depressed mood may emerge. For instance, if an individual has a negative self-concept, that individual becomes aware of it by self-focusing, and therefore experiences a negative affect (Sakamoto, 1998a; Sedikides, 1992a). Because self-focusing can reveal the negative difference between the standard and real self (Duval & Wicklund, 1972; Carver & Scheier, 1981), people who have dysfunctional attitudes toward themselves (i.e., unrealistically high goals for the self) are more likely to realize their shortcoming by self-focusing, and then a depressed mood will follow.

In the third stage (maintenance of self-focusing; arrow *c* in Figure 2), people continue to focus on themselves, which leads to the processing of negative information about the self and, in turn, strengthens the depressed mood.

By self-focusing under a depressed mood, negative self-referent information is more likely to be processed. For example, under a negative mood, people tend to recall negative self-referent memories by self-focusing (Bower, 1981). Depressed people selectively accept negative information about the self instead of accepting positive information (selective abstraction: Beck, 1976; cf. Swann, Wenzlaff, Krull, & Pelham, 1992; Swann, Wenzlaff, & Tafarodi, 1992). Moreover, because self-focusing directly strengthens the mood that one has experienced (Scheier, 1976; Scheier & Carver, 1977), a depressed mood is directly strengthened by self-focusing (i.e., not by way of cognitive processes).

Therefore, persistent self-focusing during a depressed mood can preserve or enhance that mood (cf. Nolen-Hoeksema, 1991). In contrast, if people are able to distract their attention from the self, then the depressed mood may fade away (Fennell & Teasdale, 1984; Nix, Watson, Pyszczynski, & Greenberg, 1995).

Propositions derived from the three-phase model

From the three-phase model, some propositions can be derived. Proposition 1: Depression is generated by negative cognitive products about the self, which are the results of the cognitive processing of negative information (cognitive propositions)

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about the self. The examples of negative cognitive propositions are depressogenic attributional style (Abramson et al., 1978), dysfunctional attitudes (Weissman & Beck, 1978), irrational beliefs (Ellis & Harper, 1975), and depressive schemata (Beck, 1967, 1976; Kuiper et al., 1988), while those of the negative cognitive products about the self are stable, global attributions for failure (Abramson, Alloy, & Metalsky, 1988), hopelessness (Abramson et al., 1988; Beck, 1967, 1976), and recalled negative memories of the self (Rehm & Naus, 1990). Many cognitive theories of depression (Abramson et al., 1988; Beck, 1967, 1976; Rehm & Naus, 1990; Ingram, 1990) seem to be in agreement with Proposition 1. For example, in the theories of Abramson et al. (1978, 1988) and Beck (1967, 1976), the cognitive propositions identified are depressogenic attributional style and depressive schemata, while the cognitive products identified are stable, global attributions for negative events and negative cognitive triads.

Proposition 1 can be divided into several propositions. First, if we separate environmental influence (Initiation phase) and self-process (Operational phase), Proposition 1 can be divided into two propositions: Proposition 2a (Environment)–An environment that makes people process negative information about the self is more likely to make people feel depressed; Proposition 2b (Self) – Those who tend to be conscious of negative cognitive products about the self are more likely to be depressed. Moreover, Proposition 2b can be divided into two parts, the existence of stored negative information about the self (cognitive proposition: CP) and the processing of information about the self (cognitive operation; CO). Therefore Proposition 2b is possibly divided into: Proposition 2b-1 (Self-CP) – Those who have negative cognitive propositions about the self are more likely to be depressed; and Proposition 2b-2 (Self-CO) – Those who have the tendency to process information about the self are more likely to be depressed.

From Proposition 1, maintenance of depression could be equivalent to continuing to process negative information about the self. Therefore from Proposition 2a and 2b, the following propositions might be possible in relation to the maintenance of depression (the Maintenance phase): Proposition 3a (Environment) – An environment that makes people endure self-focusing under depression is more likely to prolong depression; Proposition 3b (Self) – Those who tend to prolong self-focusing when they are depressed are more likely to endure depression.

Hypotheses from the model

How do we express these propositions (2a-1 to 3b) concretely? From Proposition 2a, the following hypothesis may be put forward. Hypothesis 2a: Self-involved as well as negative situations may make people process negative self-information (self-focusing), which may be more likely to make them feel depressed. This hypothesis is about the triggering factor of self-focusing; there is no study that directly confirms it, but both theoretical discussion and empirical studies suggest the possibility. First, negative situations can arouse negative mood directly (outcome-dependent emotion; Weiner, Russell, & Lerman, 1979), and in turn the negative mood turns attention inward (Carr, Teasdale, & Broadbent, 1991; Sedikides, 1992b; Wood, Saltzberg, & Goldsamt, 1990). Studies examining the effects of mood on the direction of attention have reported that people turned their attention to the self in a negative mood, but not in a positive one (e.g., Sedikides, 1992b; cf. Salovey, 1992). Second, in negative situations (especially

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those high in self-reference), people would be motivated to self-regulation, which requires self-focusing (Carver & Scheier, 1981, 1990). Therefore, although there is no direct confirmation of the hypothesis, previous studies suggest the possibility.

Proposition 2b can be stated as follows. Hypothesis 2b-1 – Those who have dysfunctional attitudes, irrational beliefs, depressogenic attributional style, and/or negative self-schemata may be more likely to be depressed. Hypothesis 2b-2 – Those who are high in self-consciousness or self-preoccupation may be more likely to be depressed. These two hypotheses are concerned with the vulnerability to depression. Most studies and theories emphasize the vulnerability factor of the former type, but according to the three-phase model, the latter-type of vulnerability is as important as the former.

Some studies have confirmed these hypotheses. In addition to attributional style (Metalsky & Joiner, 1992; Metalsky, Joiner, Hardin, & Abramson, 1993), high self-consciousness and self-preoccupation were shown to be vulnerability factors to depression (Ingram, Johnson, Bernet, Dombeck, & Rowe, 1992; Sakamoto, 1999).

In a longitudinal study of 169 nondepressed undergraduates, Sakamoto (1999) found that self-preoccupation was a vulnerability factor for depression. The interaction between self-preoccupation and negative life events experienced in the research period significantly predicted the postscore of the SDS, after controlling sex, the Self-Preoccupation Scale score, and the number of negative life events. Specifically, among those with a larger number of negative life events, those who are high in self-preoccupation became more depressed than their counterparts who were low in self-preoccupation. However, among those with a smaller number of negative life events, there was less difference between the two groups in the postscore of SDS.

Regarding the Maintenance phase, the following hypotheses may be drawn from Proposition 3a and 3b. Hypothesis 3a – Situations where there are no significant focal objects may be more likely to make people maintain self-focus, which in turn may prolong depression. Examples of such situations are living alone, at midnight, and having no hobbies or distractions. Hypothesis 3b – Those who are high in self-preoccupation may be more likely to maintain self-focus, which in turn may prolong depression.

Whereas the former proposition is not confirmed, the latter was confirmed; Sakamoto, Tomoda, and Kijima (1995) obtained data supporting Hypothesis 3a. In a longitudinal study, undergraduates were questioned as to whether they had experienced a depressed mood persisting for 4 or more days in the previous 12 months. If a participant reported such a depressed mood, he/she was asked how long it had persisted, and whether or not he/she had experienced depressive symptoms listed in the *Diagnostic and statistical manual of mental disorders* (4th ed.) (DSM-IV; American Psychiatric Association, 1994) during the episode. Among those experiencing a depressed mood for 4 or more days consecutively, people high in the SPS score experienced a greater number of depressive symptoms and a more enduring depressed mood than those low in the SPS score. Thus, self-preoccupation may be a risk factor for the onset and for the maintenance of depression.

Suggestion for prevention and recovery from depression

According to the three-phase model, some suggestions for prevention of and recovery from depression could be made in each phase. (1) Initiation: Distracting attention from

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the self to the environment, especially after self-involved negative events, could be effective in preventing depression. As stated above, self-involved negative situations (e.g., when I experience something aversive, or when something sad occurs to me) are likely to heighten self-focusing, and to access negative information about the self. Self-focusing after negative events might be expected, in view of the self-regulation process, and in some cases it may function well. However, for those who have negative self-information, self-focusing after negative events might lead to depression, so that behavioural intervention to ensure that a depressed person should avoid self-focusing after negative events could well be effective. If self-focus is necessary for self-regulation, this would be effective after the mood became neutral.

(2) Operation: One might be free from depression by changing negative cognitive propositions about the self into positive ones. To change cognitive propositions is the final goal of preventing and recovering from depression. Cognitive therapy aims to change irrational beliefs (Ellis & Harper, 1975) and negative schemata (Beck, 1967, 1976).

(3) Maintenance: There are two ways that encourage depressed people to recover from depression: first, in a negative mood, distracting oneself and not thinking about the mood; second, to change the environment to provide more distraction. Nolen-Hoeksema (1991) stated that the ruminative coping style (focusing on one's negative emotional state, and thinking repeatedly about the causes and consequences of that state) would prolong the depressed mood, while a distracting response would alleviate it. Some studies showed that distracting from the self could alleviate depressed mood (Fennell & Teasdale, 1984; Nix et al., 1995), so that distraction is possibly effective in recovery from depression.

In order to attain this goal, environmental changes (e.g., distractions, hobbies, regular exercise) might be necessary. A longitudinal study showed that people with regular engagement in sports and exercises were less likely to be depressed (Paffenbarger, Lee, & Leung, 1994), while other studies showed the preventive effects of sports for depression (Farmer et al., 1988; Griest et al., 1979). Moreover Geron (1976) and Shephard (1991) showed the effects of exercising on alleviating a depressed mood among physically disordered people. Though these studies did not show any relationship between exercise and a lowered level of self-focusing, sports could reduce the level of self-focusing and turn an individual's attention outward.

Comparison with other cognitive models of depression

Many cognitive models of depression have identified cognitive constructs causing depression, such as attributional style (Abramson et al., 1978, 1988), depressive schemata (Beck, 1967, 1976), and irrational beliefs (Ellis & Harper, 1975). While these constructs are categorized into "cognitive propositions", self-focusing is a concept categorized into "cognitive operations".

Self-focused attention is more important than constructs such as attributional style, depressive schema, and irrational beliefs, because those who have depressive cognitive products are not always depressed. Only when people are involved in negative thoughts about the self (i.e., self-focusing), do they become depressed.

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Knowing when and why depressive cognitive products become ''awared'' (i.e., knowing about the cognitive operations) would be beneficial for not only researchers but also for practitioners. If the conditions under which people with negative cognitive propositions become depressed are specified, the practitioner could intervene at that point. In the three-phase model, statements about the initiation (Hypothesis 2b) and maintenance phase (Hypothesis 3b) specify the conditions; depressed people prefer self-focus after failure and avoid it after success. They also tend to self-focus in ''alone situations''. Depression-prone people need to be distracted from the self in these situations in order not to become depressed.

There are some other self-focus models of depression (Lewinsohn et al., 1985; Pyszczynski & Greenberg, 1987), but they do not mention a recovery process. It is obvious that a great proportion of depressed people recover naturally (i.e., become symptom-free without medication or consultation), therefore a cognitive model of depression should state the recovery process as well as the onset and maintenance process. In the three-phase model of depression, the maintenance phase explains both the recovery and the prolongation of depression. That is, a depressive mood may ameliorate by turning attention to the environment. If a depressed person continues to self-focus, the depressed mood cannot ameliorate.

Explanations for ''success depression''

Although negative events are likely to precede depression, researchers should pay attention to depression occurring without negative life events or even after *positive* life events (''success depression''). In Japan, some clinicians reported that depression had arisen after positive life events such as a promotion or after release from long-term painful work (Nishimatsu, 1992). In western literature, there are also descriptions of ''success depression'' (e.g., Power & Dalgleish, 1997, pp. 281–282). Although many of the previous theories do not explain that phenomenon, the present model and some other models disputed them (behavioural viewpoint: Eastman, 1976; Seligman, 1975; cognitive viewpoint: Champion & Power, 1995; Power & Dalgleish, 1997).

The three-phase model could explain ''success depression''. Depression is generated by negative cognitive products about the self, which are the results of the cognitive processing of negative information about the self (i.e., self-focusing). If people have much negative self-referent information, they may become depressed only when they turn their attention to the self; whether a self-focusing situation is positive or negative is not substantial. For example, a perfectionist who always sets his/her goals high may self-focus after his/her promotion, and think that ''I *shouldn't* fail *any more* now that I am a boss''. Another example is a ''loveholic'' person who always wants to be loved by his/her spouse or girl/boyfriend. If they self-focus after being given a sign of affection (e.g., a smile, a gift of love), they may think that ''I am now happy, but I cannot survive without the love of that person''. For those who have many negative cognitive propositions (e.g., irrational beliefs), self-focus, even after positive events, may generate negative thoughts (cognitive products), which may lead to depression.

Explanations for sex differences in depression

It is a well-known fact that women suffer from higher rates of depression than men (e.g., Kessler, McGonagle, Swartz, Blazer, & Nelson, 1993; Nolen-Hoeksema, 1987;

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Weissman & Klerman, 1977). These sex differences are explained from artifact, biological factors, psychoanalytic perspective, sex role, learned helplessness, and response style to depression (see, Nolen-Hoeksema, 1987, 1991).

According to the present model, the findings in sex differences in depression may be mainly explained by the sex differences in cognitive propositions about the self and/or cognitive operations. That is, comparing with men, women may be more negative in cognitive propositions about the self (i.e., lower self-esteem, more negative evaluation about the self), and/or may be higher in self-consciousness or self-preoccupation, which generate sex differences in the prevalence of depression.

Although significant sex differences were not found in self-consciousness nor self-preoccupation (Fenigstein et al., 1975; Sakamoto, 1998b), previous studies reported significant sex differences in self-esteem and self-evaluation (Allgood-Merten & Stockard, 1991; Alsaker & Olweus, 1993; Nottelmann, 1987, cf. Ostrov, Offer, & Howard, 1989). In childhood when there are no sex differences in self-esteem, the prevalence of depression is fairly equal for boys and girls (Angold & Wortham, 1993). Self-esteem and self-evaluation decline during the transition from childhood to adolescence and do so more frequently and more precipitously for girls than boys (Allgood-Merten & Stockard, 1991), contributing to increasing depression during adolescence, particularly for adolescent girls (Angold & Worthman, 1993; Kashani et al., 1987). Therefore, according to the present model, the differences in the negativity of cognitive propositions about the self generate sex differences in depression.

Scope of application of the model

There are some unclear points in the application of the model. First, though the three-phase model appears to apply well to young adults, the applicability to other age groups is unclear, because most empirical studies examining the relationship between self-focusing and depression have used undergraduates or adolescents as participants. Second, the ''depression'' stated in the model might not be at the psychiatric level, because in previous studies, subclinical samples and self-rating depression scales (e.g., BDI, SDS) were generally used. Tennen, Hall and Affleck (1995) pointed out the methodological shortcomings of using subclinical samples and self-rating depression scales in depression studies. A previous study (Sakamoto, Tomoda, Iwata, Aihara, & Kitamura, 1999), however, suggests the potential applicability of the model for a psychiatric level of depression. Using a semi-structured interview (Kitamura, 1992), Sakamoto et al. (1999) examined the relation between self-preoccupation and depression in community residents aged from 18 to 21 ($N = 119$). Among the top quarter of self-preoccupation ($n = 34$), 32.4% met the *Diagnostic and statistical manual of mental disorders* (3rd ed. rev.) (American Psychiatric Association, 1987) for Major Depressive Episode, while among the lowest quarter ($n = 32$), only 9.4% did. Because few studies have investigated self-focus and depression using structured interviews and diagnostic criteria, further studies are needed to examine their applicability for the clinical level of depression.

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