A Review of the Secure Attachment Initiation Effect on Emotion Regulation
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Abstract
Over the past 30 years, there have been a large number of studies exploring the effects and mechanisms of secure attachment initiation, but there is some disagreement and inconsistency in the findings. Previous empirical studies have shown that attachment has a certain effect on emotion regulation, and secure attachment has a better emotion regulation function. Individual attachment characteristics have a duality of trait attachment and state attachment, trait attachment has stability, and state attachment can be reached through secure attachment initiation. Secure attachment initiation is a relatively new technique in current research. This paper will review the current research results and describe the current status of secure attachment initiation, its impact on individual emotion regulation, its effectiveness, shortcomings, and directions for future research.

Keywords
Attachment, secure attachment initiation, emotion regulation, emotion regulation strategy selection, state attachment.

1. Introduction
Attachment is the pattern of emotions and behaviors that individuals develop in close relationships, based primarily on interactions between infants and caregivers. The experience of interacting with a primary caregiver during infancy and early childhood is critical to the formation of attachment security, with timely parental responses to infant signals and needs, and a more stable sense of parental security in children, facilitating more favorable developmental outcomes.
Attachment insecurity is associated with many internalizing and externalizing problems in childhood and adulthood, such as depression and generalized anxiety. Stress resulting from attachment insecurity is thought to be associated with depressive symptoms because it impedes emotion regulation, fosters despair and pessimism, and makes it difficult to establish and maintain relationships. Not only is attachment significantly important for the early adaptation and survival of the individual, secure attachment in adulthood is also recognized as a positive trait that can effectively mitigate threats and promote secure experiences.
Classical attachment theory considers the individual's attachment psychology and behavioral patterns to be stable, but Bowlby also believes that the individual's attachment patterns will change with different contexts. Empirical studies have found that individuals in different situations will show different attachment patterns from their long-term stable attachment patterns, i.e., the attachment pattern has a duality: relative stability and context sensitivity, which are manifested as trait attachment and state attachment in the attachment pattern. The attachment pattern presented by an individual in an attachment situation is influenced by both the long-term stable attachment pattern and the context-influenced attachment pattern. Study concludes that there is an interaction between trait attachment and attachment priming effects,
and that attachment priming effects are independent of individual trait attachment, but can be used to enhance individual trait attachment security and activate state attachment through situational simulation training and other secure attachment priming.

2. Overview of Secure Attachment Initiation

2.1. Secure Attachment Initiation Paradigm

Attachment initiation methods can be categorized into different types based on different criteria. Generally speaking, attachment priming is categorized into supraliminal priming and subliminal priming based on the individual's level of awareness of the processing of the priming stimulus. Commonly used methods for supraliminal priming include guided imagery, visualization, memory writing, story reading, vocabulary priming, picture priming, and open-ended question answering. In subliminal priming, the researcher either presents the stimulus at subliminal (10ms~24ms) so that the subjects cannot process it consciously or sets up a false task, which does not require the subjects to process the stimulus consciously. The overall priming effect of supraliminal priming was larger and more sensitive, but subjects were easily attracted to the presented supraliminal stimuli and guessed the purpose of the experiment, whereas the subliminal priming effect was smaller, but was able to rule out the influence of intentional processing on responses and test the automatization of attachment processing. The type of attachment priming activates different attachment schemas or representations, which in turn have different effects on individual information processing and interpersonal interactions. Secure initiation activates secure base representations, which temporarily increase the individual's sense of security, buffer the negative effects of insecure attachment, and show more constructive psychological and behavioral responses.

2.2. Secure Attachment Initiation Effect

Secure attachment is a healthy, stable attachment pattern that manifests itself in an individual's trust, dependence, and exploratory behaviors toward others. People with this attachment pattern usually have a good sense of self-worth and the ability to trust others. They believe they can rely on and receive support from others, as well as provide support to others. Secure attachment initiation techniques are interventions designed to increase an individual's sense of security and promote the development of positive emotions and behaviors by activating the individual's secure attachment system to evoke secure attachment feelings in the subject. Commonly used secure attachment initiation methods include the presentation of secure attachment-related situational pictures or episodes, words that evoke attachment security and pictures of the attachment object's name or face, guided memories or imagery about secure attachment, and subsequent writing tasks.

Current research suggests that attachment security initiation can briefly increase feelings of security by activating an individual's secure base schema, increase an individual's self-esteem, sense of self-worth, and sense of well-being, reduce anxiety and depression, and promote positive social behaviors buffering the negative effects of insecure attachment experiences.

2.3. Long-term secure attachment initiation effects

Long-term secure attachment initiation also has positive effects on emotion regulation. The small amount of research that has been conducted in this area has found that individuals can consistently experience positive effects through long-term secure attachment initiation and have facilitative effects. For example, performing repetitive, high-frequency secure attachment initiations (lasting from a week to several weeks) can sustain positive effects in individuals for 3-10 days. Secure attachment initiation improves an individual's subjective well-being and emotional stability, increases their positive evaluations of relationships, generates positive
emotions, increases emotional well-being, a positive and more evaluative view of self, more empathy for others, and a decrease in attachment-related anxiety. However, further research is currently needed to confirm the long-term effects of the Secure Attachment Initiation technique and its effectiveness in real-world situations. In addition, the current study was conducted primarily in the laboratory and its findings may be limited by ecological validity; therefore, more research is needed to understand the ecological validity of Secure Attachment Initiation in real-world contexts.

3. Effects of Secure Attachment Initiation on Emotion Regulation

3.1. Emotional cognitive processing and strategy selection

Emotion regulation refers to an individual's ability to adjust, manage and regulate his or her emotional state through a variety of cognitive, affective and behavioral strategies in the face of emotional arousal, in order to achieve the purpose of emotional adaptation and emotional stability. According to the extended process model, the emotion regulation process can be divided into several stages, such as cognitive processing of emotions and selection of emotion regulation strategies.

In the stage of cognitive processing of emotions, secure attachment initiation enhances an individual's ability to notice and perceive emotional information, making them more acutely aware and understanding of their own and others' emotions, in a process in which positive affect is increased, and also activates love-related brain regions, some of which in the left hemisphere are associated with the process of emotion regulation, and secure initiation is a cognitive resource in this process.

Emotion regulation strategies refer to the specific methods and behaviors that an individual employs in the process of emotion regulation. Emotional reactivity and emotional cutoff are two of these different emotion regulation strategies, and people with different attachment types often use emotion regulation strategies for different emotions. Emotion reactivity and emotion cutoff (indicators of emotion regulation) play an important role in mediating the relationship between attachment and distress during the selection phase of emotion regulation strategies, and different attachment dimensions are associated with different affect regulation strategies, and the presence of these attachment dimensions is positively correlated with indices of psychological distress such as depression and anxiety. Studies have shown that the relationship between attachment anxiety, negative affect, and relationship problems is mediated only through emotional reactivity rather than emotional cutoff; the relationship between attachment avoidance, negative affect, and relationship problems is mediated only through emotional cutoff rather than emotional reactivity.

3.2. Effects of Secure Attachment Initiation on Emotion Regulation

Secure initiation can have a positive effect on an individual's mood and emotions, increasing the individual's positive affective and emotional state, and this effect may last for a period of time. Repeated initiations of attachment security and anxiety can produce lasting changes in individuals, and attachment security and anxiety initiations have similar effects. By repeating the effects of security initiation on participants, it can promote positive expectations of themselves and others and reduce attachment anxiety. This effect of secure initiation persists over the long term and can alter the functioning of an individual's emotional and behavioral systems.

In repeated studies of the potential effects of attachment security initiation on depressive symptoms, individuals with high attachment insecurity were more likely to experience depressive symptoms than those with low insecurity, and these findings suggest that increasing one's attachment security can help alleviate depressive symptoms. As a therapeutic
intervention, attachment security initiation is a promising technique for increasing attachment security.

4. Moderation of the Secure Attachment Initiation Effect by Trait-Type Attachment

Attachment has a dual nature, and previous research has demonstrated an interaction between attachment style, i.e., trait attachment, and secure initiation, with attachment style moderating the effects of secure initiation, and, in fact, the advantages of secure initiation are felt more strongly for individuals with high attachment anxiety, and those with high attachment avoidance experience fewer positive effects of being exposed to positive imagery during secure initiation.

Attachment anxiety and attachment avoidance were found to be individual differences related to emotion regulation, and there was a negative correlation between attachment anxiety and attachment avoidance and emotion regulation skills. Attachment-anxious individuals tended to exaggerate the threat assessment process, pay attention to internal indicators of distress, and had a higher response to negative emotions. Attachment avoidant individuals, on the other hand, attempt to suppress and ignore the experience and expression of negative emotions and may have difficulty in emotion regulation. These insecure attachments are associated with the structure and function of areas of the brain responsible for emotion regulation and may lead to difficulties in emotion regulation.

Secure priming has positive effects on individuals who chronically use "pain-reinforcing" cognitive, behavioral, and emotion regulation strategies, and Gillath suggests that supraliminal priming may be effective in reducing over-activation of strategies in anxiety-attached individuals. That means supraliminal initiation may be effective in reducing over-activation strategies in anxious attachment individuals. However, because highly attachment-avoidant individuals often use defense mechanisms, they may be less likely to recall secure interactions with close people or be unable to provide more detailed recollections of such experiences, i.e., they may have difficulty generating stories that reflect the positive behavioral and affective content of a coherent secure base script, and supraliminal secure initiation is less effective, subliminal or implicit initiation may be more appropriate for attachment avoidance and reduce cognitive-emotional defenses in these individuals. individuals’ cognitive-emotional defenses.

5. Problems and prospects

Current research on secure attachment and depression suggests that people with high attachment insecurity are more likely to experience depressive symptoms than those with low insecurity, and that enhancing one's attachment security can help alleviate depressive symptoms. Because of its easy-to-administer format and low cost, attachment initiation may be a useful tool that may be complementary to other therapeutic procedures.

Over the past 30 years, a large number of studies have explored the effects and mechanisms of safe initiation, but there is some disagreement and inconsistency in the findings. The main reasons are that different types of initiating stimuli such as supraliminal and subliminal stimuli are used in the methodology, or it is difficult to distinguish the interaction between the two types of stimuli after they have been used. In addition, the size of the samples, inconsistencies in the study design and statistical methods, the type of measurements, and the selection of the comparison conditions may be the reasons why the results of the studies show heterogeneity and inconsistency.

Most of the current studies are cross-sectional in design, and there are few longitudinal studies on the effects of attachment security. Based on the current findings, further research can be
conducted in two directions. First, expand the sample size to improve the reliability and universality of the research results. Second, the male-female ratio and attachment type of the subjects should be fixed in a relatively fixed way, excluding the influence of psychological reasons. In addition, some of the research methods rely mainly on questionnaires, which may have self-report bias. The findings can be validated in conjunction with other research methods such as experimental design or neuroimaging. This will in turn provide a theoretical basis for individual adaptation and mental health interventions, as well as guidance for the assessment and intervention of individual attachment and emotion regulation.

Previous research suggests that attachment initiation may influence an individual’s behaviour outside of the laboratory. Therefore, when conducting an experimental design, manipulations outside of the laboratory can be incorporated and may be more ecologically valid. Additionally, even if one technique is not effective, a different initiation technique could be used to achieve a similar effect. Different initiation techniques can be combined when designing experiments. In conclusion, as a therapeutic intervention, attachment security initiation is a promising technique for increasing attachment security.

References: