

Thwarting the Malicious Insider Evolution Process: The Theory of Strained Betrayal



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Highlights

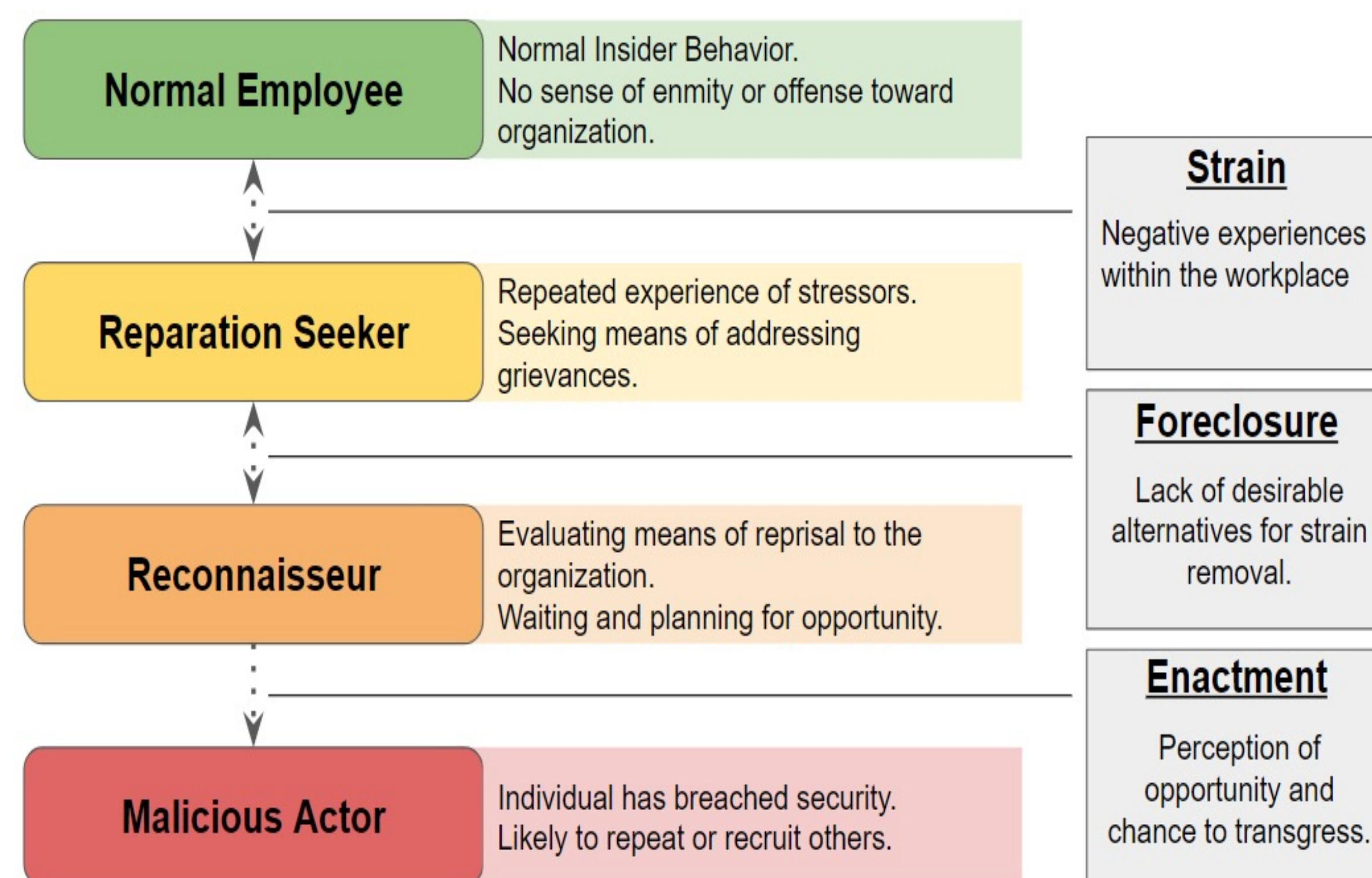
- Insider threats are a challenge for public (national intelligence) and private sector (data theft) organizations with serious consequences for national competitiveness and security
- Most of the work on Insider Threat has focused on detection of insider activities by monitoring activities of employees (both online and physical)
- The key drawback of existing work is that the damage is often already done by the time the insider activity is detected
- This research provides an understanding of how normal employees turn malicious due to strain due to perceived organizational injustice creating a need for strain redressal
- Two studies have been done to validate the model and a third study is underway to validate the model and also test interventions for mitigating insider malicious behavior
- The work addresses both a national security problem as well as employee strain problem that will lead to increased organizational commitment and higher productivity

Insiders pose a significant risk due to the damage they can cause through either malicious or inadvertent actions.

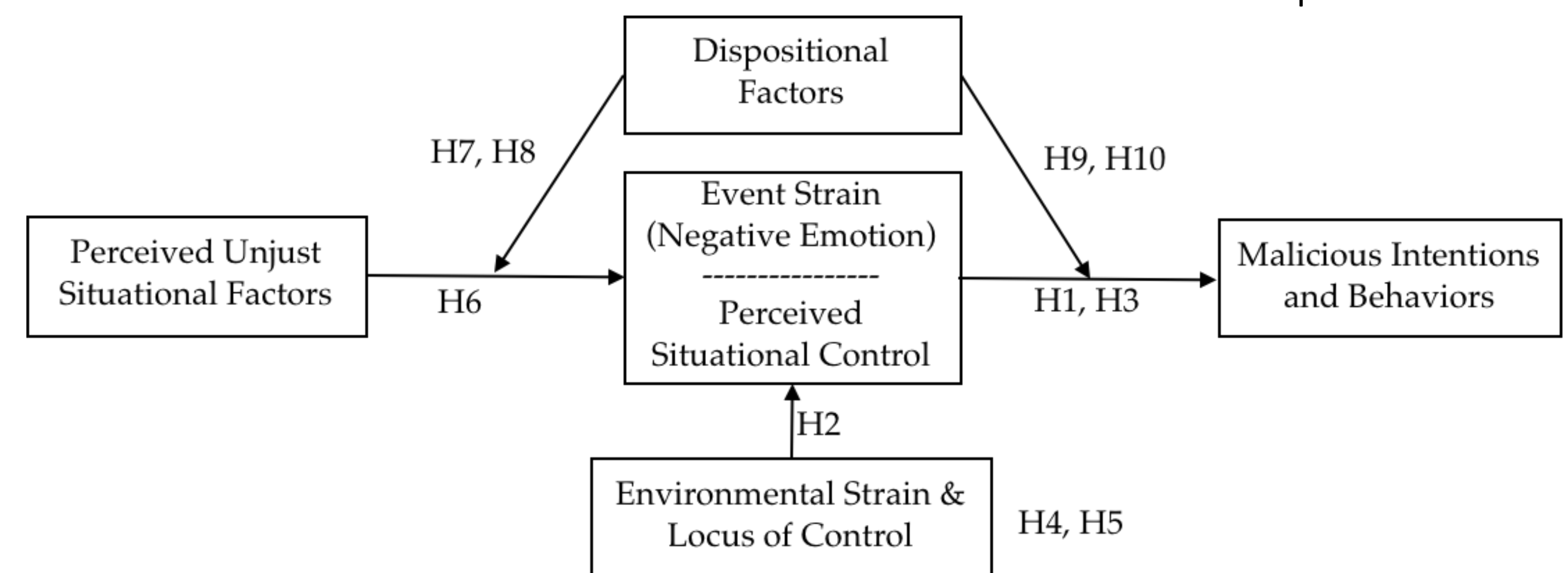
Malicious insiders can be disgruntled employees, mercenaries, or just greedy, i.e. acting for financial benefit.

Normal employees can turn 'malicious' during their employment.

There are several reasons for malicious behavior, including greed, social justice, personal injustice, patriotism, etc.

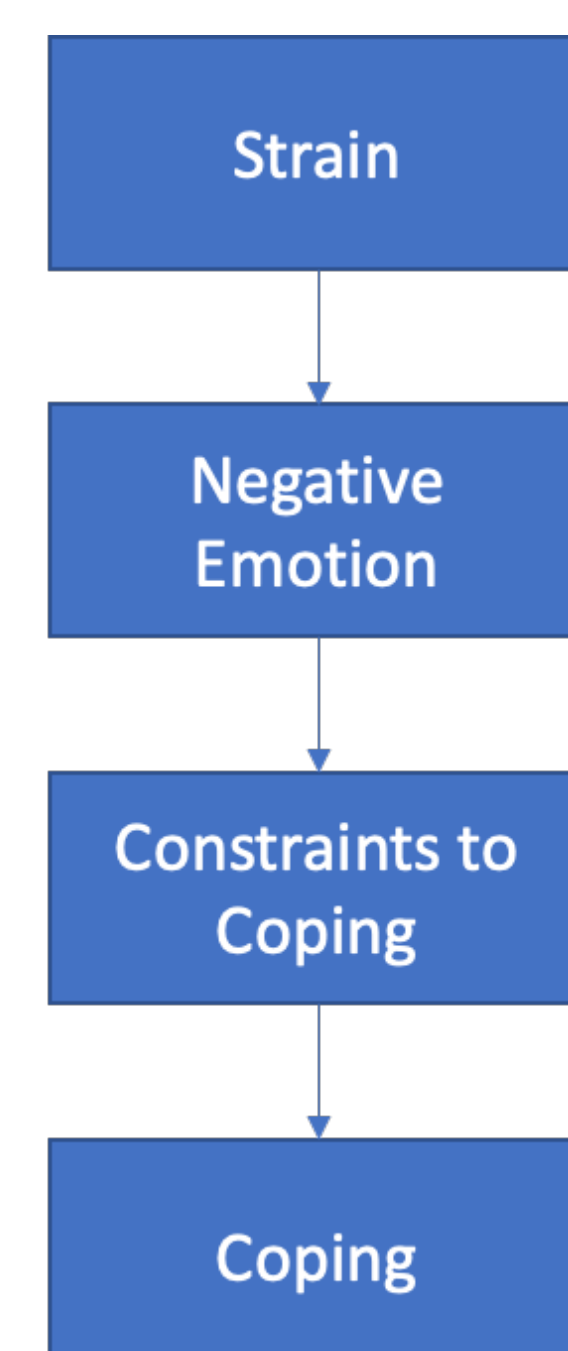


The Theory of Strained Betrayal combines the General Strain Theory and the emotion-centered model of voluntary behavior to posit negative emotions resulting from strain combined with low locus of control leads to malicious insider behavior to cope with strain.



GENERAL STRAIN THEORY Strain increases likelihood of negative emotion, which creates need for coping – emotion-coping link moderated by coping constraints.

- Strain can be caused by
 - Failure to achieve valued goals
 - Removal of positive stimuli
 - Presentation of negative stimuli
- Coping Strategies
 - Cognitive (rationalizing)
 - Behavioral (minimize strain or satisfy revenge)
 - Emotional (act on emotions, e.g., drugs)
- Constraints to coping (delinquent and non delinquent)
 - Individual resources (self-esteem, intelligence, etc.)
 - Social support

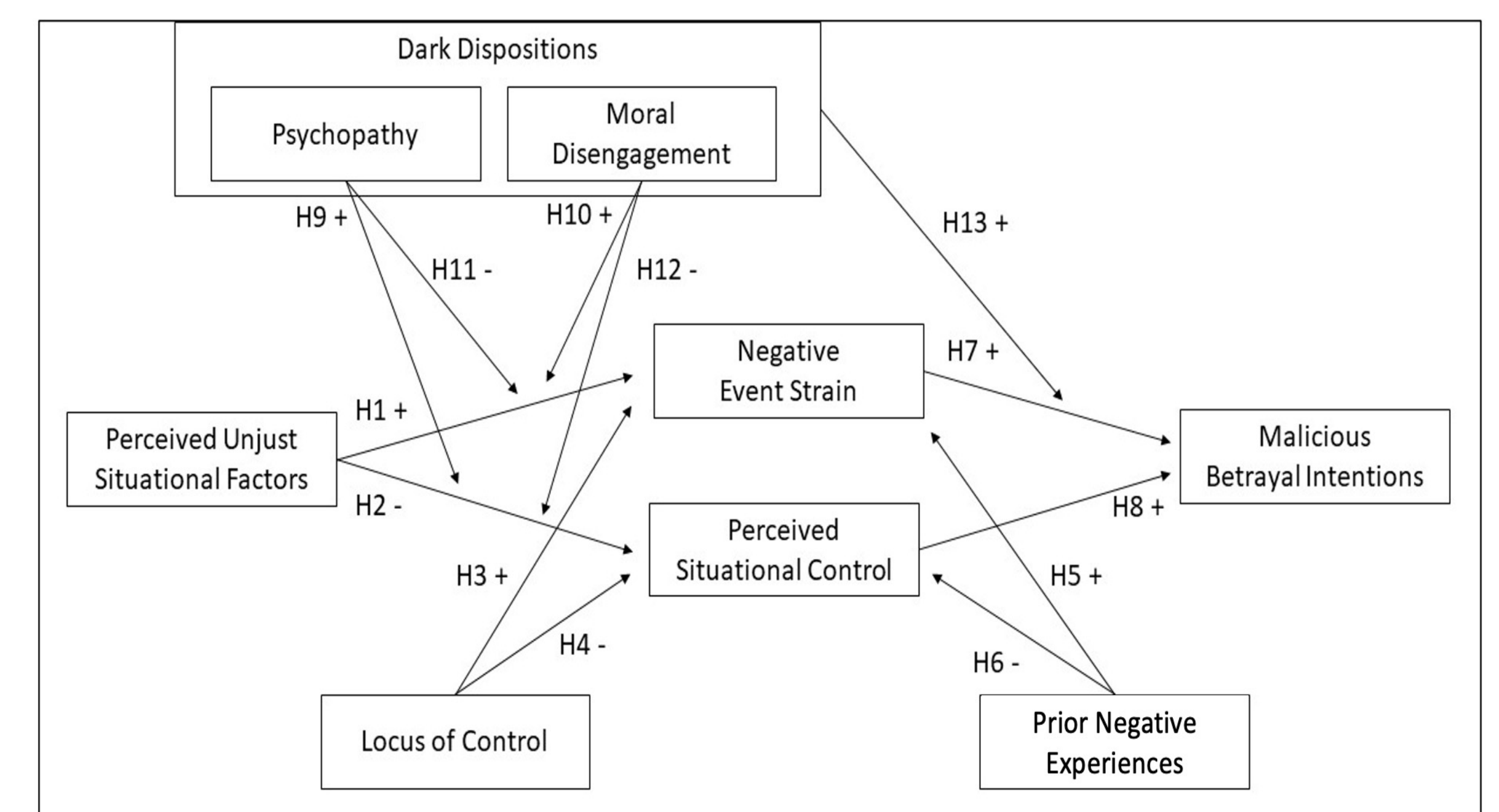


Implications to Theory

Understanding the internal and external forces that act on insiders and form betrayal intentions among them is an important first step in understanding the genesis of betrayal behavior in organizations

Presenting strain as a product of a perceived injustice, with influence from one's own dark dispositions, provides a new perspective for understanding insider malicious behavior

Surprisingly, perceived situational control did not predict self-reported betrayal intentions. Perhaps, control is overshadowed by negative event strain and other personality and environmental factors



Broader Impacts (Societal)

Insider Threats are a challenge for organization, including private firms (data theft) and intelligence agencies (national secrets)

This research provides two routes for mitigation of insider activity in organizations, i.e., by changing the pathway from perceived injustice to strain or from strain to betrayal intentions.

To throttle the first pathway organizational interventions that change the organization climate would work i.e., ensuring fairness in decisions, management accountability to employees, and empowering employees.

To throttle the second pathway organizations can embolden employees to seek redressal to resolve the situation thereby addressing strain and consequent potential betrayal activity

The same approach could be applied for a broad set of counterproductive work behaviors other than data theft

Broader Impacts (Education)

- This model opens up new pathways to research focused on mitigation of insider threats by preventing them rather than detecting them
- This work has precipitated two doctoral dissertations on inside threats and engaged two undergraduate students and one doctoral student in the research
- Work from this has been disseminated at IS conferences and is under review at the MISQ journal
- The knowledge gained from this work will be disseminated through the Psychology and Information Security class
- A new research program on active defense for insider threats that involves developing active defense techniques to detect insider activities in honey traps is now in progress

Broader Impacts (Broadening Participation)

- This work can help mitigate the the issue of discrimination of underrepresented minorities in organizations by providing a better understanding of their strain and lays out pathways for organizations to help redress strain
- The work has involved 3 female participants including two doctoral students and one undergraduate student
- Discussions on this research are benefiting the entire research group of doctoral students that has one African American male, three Asian females, one white male, and one white female.

