

**Preparing New Recruits for Promotion in Silicon Valley: Results From a Field
Experiment Using Pre-mortems During Employee Socialization**

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Abstract

The literature on socialization neglects how newcomers bring lay conceptions of new jobs to the workplace. Thus, in Silicon Valley, newcomers approach new jobs as tours of duty lasting a few years unless they get promoted rapidly. Consequently, newcomers can become consumers focused on skill acquisition, and thereby overlook the obstacles to promotion. We conducted a field experiment in a Silicon Valley technology firm to assess if pre-mortems would help people garner promotions. Newcomers in the control condition were asked to write what they imagined their first year at the firm would be like and focused on the new skills they would acquire. Newcomers assigned to the pre-mortem treatment condition(s) were asked to imagine that either they (or a peer) had failed (or succeeded) in the first year and to write a *story* about the events leading to the outcome. Pre-mortems, especially of a peer's failure, are correlated with promotion at the end of the first year. Pre-mortems led respondents to consider a wider range of contingencies, especially, help-seeking and team processes. Both topics mediated the effect of pre-mortems on promotion. Implications for research on socialization and the use of narratives are outlined.

Each year more than 25% of the working population in the United States experiences a career transition (Rollag et al. 2005), and hence, what becomes important is employee socialization: “[the] process by which an individual acquires the social knowledge and skills necessary to assume an organizational role” (Van Maanen and Schein, 1979: 211). The dominant approach to employee socialization is rooted in the logic of absorption, which is to mold the newcomer to the organization (Nicholson, 1984). When effective, as Bauer et al. (1998:151) summarize, “Newcomers understand and adopt the organization’s central values and norms”.

While there is ample recognition that individual personality attributes shape a newcomer’s access to social resources in the new firm (See Fang, Duffy and Shaw, 2011), the socialization literature has neglected the lay conceptions newcomers bring to new jobs. For the most part, newcomers are treated as empty vessels into which information about the job and organization need to be poured in by hiring managers and human resource professionals. However, new recruits are likely to have lay conceptions about new jobs that are schematic knowledge structures that organize the way in which people make sense of events. Moscovici (1981) observes that the psychological reality of everyday life is predicated on historically and culturally constituted social representations. These social representations, as Carugati (1990) notes, have a collective character; and, are mixtures of perceptions, images and concepts. Heider (1958: 5) presciently commented that "An explanation of the behavior must deal with common sense psychology...If a person believes that the lines in his palms foretell his fortune, this belief must be taken into account in explaining certain of his expectations and actions". (1958, p.5).

A number of observers suggest that the social representation of a new job being a “long job” leading to an extended decades-long relationship with an employer has been

replaced by representation of a new job as a short-term tour of duty to acquire new skills. A recently released survey suggests that the average tenure in Fortune 500 firm was 3.68 years (Payscale.com, 2015). While some have referred to the tour of duty as a lay theory held by millennials or generation flux (Safian, 2012), tenure trends in Silicon Valley mesh with the tour of duty concept. In Silicon Valley firms, the average tenure of employees varied from 1 year or so in small companies to four years or less in large software companies. Hoffman, Casnocha and Yeh (2013) describe the tour of duty as a short-term compact between the new employer and the new employee, with the new employer saying “If you make us more valuable, we’ll make *you* more valuable.” The employee says, “If you help me grow and flourish, I’ll help the company grow and flourish.” Broadly speaking, the tour of duty that arranges from two to four years coincides with product development cycles in consumer goods firms and software firms, and training programs in consulting firms and banking firms.

The social representation of new jobs as tours of duty implies that new recruits are likely to stay in the company only if they are promoted, otherwise, they move to another job. To date, the socialization literature has emphasized the retention of talent and the related outcomes of employee satisfaction (see Hom, Lee, Shaw and Hausnecht, 2017), but has rarely studied promotions as an outcome. For the new employee and the new organization, promotions for new recruits are scarce resources, and new recruits, participate, as it were in a tournament (Lazear and Rosen, 1981). Moreover, first promotions at the end of the first 12 months for new employees signal quality to the wider world, and the first promotion is likely to be a harbinger of other promotions (Waldman, 2011). Promotions mean greater responsibility and greater pay.

Ideally, employee socialization should also help employees to proactively anticipate the future role and develop the skills needed to perform it (Morrison, 1993; Ashforth and Saks, 1996). One ought to “build upon the skills, values and attitudes the recruit is thought to possess already” (Van Maanen and Schein, 1979:250) to enable the newcomer to perform and to be promoted. Ironically, the social representation of a new job as a tour of duty means that newcomers can easily become consumers focused on acquiring new skills, and as a result, overlook the obstacles to promotion. Moreover, existing socialization practices that enhance indoctrination may undermine preparedness for promotions. Typically, the new organization puts its best foot forward and magnifies its positive aspects (Van Maanen and Schein, 1979), newcomers also eagerly anticipate satisfaction with the new job even though they are likely to face obstacles in their day-to-day work. Their optimism may cause them to overlook or underestimate what it takes to be a successful performer and to be promoted. The conclusion reached by an early study may still be valid today: “although newcomers receive role-related information, the information they receive is frequently reported to be inadequate; hence, they frequently experience fairly high levels of uncertainty” (Miller and Jablin, 1991:93). Indeed, meta-analyses of socialization tactics reveal that they elicit commitment but have a tenuous relationship with performance (Saks et al, 2007). One study reported that 46% of new employees fail with 26% of them doing so due to the inability to access and receive feedback, and 23% failing because they were unable to manage their own responses to job demands (Murphy, 2009). Another study of 20,000 executive searches by Heidrick and Struggles revealed that 40% of senior hires from the outside were either ousted or quit within 18 months (Masters, 2009). Therefore, a key question is then what kind of intervention might counteract the consumer orientation that new recruits come into the new, and prepare them to be promoted.

To think about what such an intervention might be, we start with Grant and Ashford's (2008) useful suggestion that proactivity is a process comprising three phases: anticipation, planning and impact. Anticipation pertains to imaging potential futures, and can include the benefits and costs of pursuing a course of action. Imagining futures allows individuals to understand sequences of events and to comprehend their connections. Indeed, anticipating future goals motivates employees to pursue such goals. Planning is the process by which an anticipated future becomes translated into an implementation playbook. If anticipation and planning represent psychological processes, impact relates to the physical and concrete realization of plans in practice.

Taking these ideas as a point of departure, we draw on the mental simulation literature to design an intervention. Mental simulations harness the imagination, as Taylor et al. (1998:430) observe, and subsume the “the replay of events that have already happened,(or) the cognitive construction of hypothetical scenarios, mixtures of real and hypothetical events.” Thus, mental simulations are prompts to preparedness (Carroll et al., 2006). We focus on one type of mental simulation – the pre-mortem., which focuses on the processes leading to an outcome, and is retrospective in nature. In a pre-mortem people live the future backward by imagining an outcome (e.g., failure or success). Unlike other pre-mortems where people are invited to give a list of reasons (e.g. Mitchell, Russo and Pennington, 1989), we ask them to write a story that describes the events leading to the outcome in question. Stories are narratives, and help newcomers to elaborate their possible selves and influence what they do (Ibarra, 1999; Kreiner & Sheep, 2009).

We conducted a field experiment in a software as a service (Saas) company with global reach in Silicon Valley. This firm is a recognized market leader, and like other Silicon Valley firms, primarily recruits engineers in a variety of entry level roles, and again as in

Silicon Valley, recruits are overwhelmingly males, and mostly in the 22-30 year old age band. We use this research design for a few reasons. First, a socialization experience would be challenging to replicate in a laboratory due to the time required, resources and social nature of these experiences. Second, the time lag between the treatment and a selective outcome such as promotion outcome for new recruits takes about a year or so, and is also difficult to replicate in the lab. Finally, we relied on a field experiment so as to balance internal validity through random assignment and external validity in terms realism and fidelity to organizational life.

Our intervention was implemented in the following way. Upon accepting a job at the company, all newcomers attended the boot camp where they were exposed to the strategy, values, and norms for succeeding in the new organization. Newcomers were randomly assigned into a control and pre-mortem conditions and the pre-mortem was administered as part of a survey of new employees right after their boot-camp. Participation was voluntary.

We expect that newcomers asked to describe their first year in the new company in the control condition are likely to devote their attention to new skills they are likely to acquire and are unlikely to be promoted. By contrast, newcomers exposed to the pre-mortem treatment(s) will have a higher probability of promotion than those in the control group. We suggest that new recruits asked to write pre-mortems are likely to consider a wider range of behavioral contingencies that affect performance. We predict that pre-mortems will sensitize individuals to the role of help-seeking and team processes in succeeding in at their job. We suggest that the more pre-mortems emphasize these topics, the higher is their probability of promotion. Hence, it is not only exposure to the pre-mortem prompt but also what they write they shapes promotions.

Our study contributes to the literature on socialization and workplace narratives. We extend the socialization literature by focusing on lay concepts of new jobs as tours of duty, and suggest that socialization is about jumpstarting first promotions and offer a valuable tool – the pre-mortem, and demonstrate its utility through a field experiment. We add to the literature on narratives by quantitatively analyzing textual data. In a recent review, Vaara, Sonnenshein and Boje (2016) urge researchers to analyze textual data through sophisticated quantitative techniques. We borrow from computational linguistics and analyze the text produced by recruits in the control and treatment condition with structural topic model techniques (Roberts et al. 2015). Briefly, the structural topic model approach allows us to treat documents as data, and predict the number of topics and the content of topics using document level covariates. Thus, it improves inference about textual data

TOUR OF DUTY: FROM CONSUMER TO CONTRIBUTOR

A number of scholars have emphasized the importance of everyday ideas (Goodnow, 1985) or lay concepts or implicit theories (Sternberg, 1985) which guide actions. Such lay concepts predate persons and comprise the 'objective knowledge' of persons and become the subjective point of departure for thought processes at the individual level. Much research has analyzed the lay theories individuals have about whether intelligence is fixed or malleable (Dweck et al. 1995), and whether intimate relationships are a matter of destiny or growth (Knee, 1998) and have demonstrated how these beliefs shape a variety of personal outcomes ranging from academic performance to marital stability. While these studies usefully unravel how fundamental beliefs about fixedness or malleability of human traits shape behavior, it is also important to note that these lay theories are not always personal constructs. More generally, as Mosovici (1981) notes, lay concepts can be shared

by a large number of persons, and passed on from one generation to the next. Such shared lay concepts channel the give-and-take between us and the reality we face (Carugati, 1990).

In our context, the psychological realities of new recruits are predicated on shared social representations of new jobs as tours of duty. This lay concept is predicated on the idea that careers are not fixed in one company, but are about learning, and that means changing jobs and employers every few years, unless one gets promoted. One survey suggested that the average number of jobs men are likely to have in their career is 11.4 for men, and 10.7 for women (Kamnetz, 2012). Reid, Casnocha and Yeh (2013) describe the tour of duty as follows:

The company gets an engaged employee who's striving to produce tangible achievements for the firm and who can be an important advocate and resource at the end of his tour or tours. The employee may not get lifetime *employment*, but he takes a significant step toward lifetime *employability*. A tour of duty also establishes a realistic zone of trust. Lifelong employment and loyalty are simply not part of today's world; pretending that they are decreases trust by forcing both sides to lie. Why two to four years? That time period seems to have nearly universal appeal. In the software business, it syncs with a typical product development cycle, allowing an employee to see a major project through. Consumer goods companies such as P&G rotate their brand managers so that each spends two to four years in a particular role. Investment banks and management consultancies have two- to four-year analyst programs. The cycle applies even outside the business world—think of U.S. presidential elections and the Olympics.

A key element of the tour of duty concept is that first promotions at the new firm matter. As a director of people operations at a Bay Area company put it in an interview “We are going to look very differently at a resume where somebody hops from company to company but in a similar job. That is not such a great story versus someone who is getting promoted...We want evidence of somebody who is growing” (Kamnetz, 2012). As another CEO of a headhunting firm put it: “It used to be that when you were looking at someone's resume and they changed jobs more frequently than every five to seven years, they'd be

labeled as a job hopper...Whatever it was, it usually flagged them and pulled them out of the stack...Now when recruiters look at someone who has stayed in a role for more than three years, the question is why? What have they been doing?

While the tour of duty model values promotions, the problem is that the tour of duty concept can easily lead new recruits to see themselves as consumers who seek to acquire new skills from the new employer. New recruits are like consumers in some ways: they can choose to work in the firm or not, they can recommend it or not to others. The consumer orientation may be aggravated as companies seek to build a talent brand and offer the employee a differentiated experience in a manner similar to how companies offer distinct experiences to their customers. In the tour of duty model, however, new recruits can think of themselves as consumers at the expense of anticipating how they will perform and contribute so that they can be promoted. Indeed, an exclusive emphasis on skill acquisition may lead employees to underestimate the obstacles to performance and promotion. Ironically, socialization tactics such as bootcamps, trusted insiders and the like may enhance newcomer commitment but not necessarily performance (e.g., Saks, Uggerslev and Fessina, 2007).

A key obstacle that new employees face is uncertainty about what it takes to perform well in the new organization. Miller and Jablin (1991) developed a typology of information sought during organizational entry that enhances performance on the job: referent information, which “tells the worker what is required of him or her to function successfully on the job” (p.98), appraisal information, which “tells the worker if he/she is functioning successfully on the job” (p.98), and relational information which “tells the worker about the nature of his or her relationship with others in the organization” (p.98). A recent survey indicated that new recruits who feel under pressure rarely turn to their employer; only 27%

of the respondents said that they would get help from an immediate superior, with 38% seeking support from family or friends at work with the others relying on alcohol or drugs or other distractions (Towers and Watson, 2015). The neglect of the obstacles to promotion is exacerbated when organizations, typically, strive to present the best possible picture of the organization (Van Maanen and Schein, 1979) and new employees are also likely to be hopeful about the skills they are likely to acquire from the new company. Indeed, we expect new recruits who are in the control condition and asked to imagine what their first year would be, would primarily write about their aspirations of acquiring new skills and abilities.

However, the dominant socialization interventions have little to do with preparing new recruits for promotion and instead, seek to reduce unrealistic expectations. The earliest is the realistic job preview (RJP), in which a forthright account of the pros and cons of a job are presented to the newcomer (Wanous, 1973) and the second is ROPES (realistic orientation program for new employee stress) developed by Wanous and Reichers, (2000), wherein newcomers are forewarned of possible disappointments, provided behavior modeling training to cope with stressors, and taught self-control of feelings through positive self-talk. Another intervention is the expectation lowering procedure (ELP), wherein, newcomers are asked to identify their expectations for the new role, assess whether they are realistic or inflated and to lower them if need be; two studies found that ELP was comparable to the RJP in terms of its impact on commitment and intentions to quit (Buckley, et al., 2002).

These interventions share an underlying idea; that an intervention ought to serve as a vaccine against unrealistic expectations (RJP, ROPES, ELP) and are geared to the retention of talent. While useful, expectation lowering interventions focus on information disclosure by the organization, and it not surprising that a meta-analysis of 52 studies with a sample size

of 17,000 employees by Earnest, Allen and Landis (2011) found that the primary mechanism by which realistic job previews reduce turnover is through increased perceptions of organizational honesty. More importantly, expectation lowering interventions neither attend to the process by which new recruits discover the content of their new role nor do they prepare new recruits to get promoted in the new organization. Indeed, expectation lowering interventions, especially, RJP and ROPES, depict new recruits as the passive consumers of information doled out by the organization, instead of making them into active searchers who discern and discover what may or may not be possible. Equally, expectation lowering interventions are geared to reducing turnover than to get new recruits to gain enlarged responsibilities and pay, and for the organization to deploy the new recruits efficiently in new roles.

A useful step forward was taken by Cable et al. (2013) in their intervention in an Indian call center. All new recruits received common skills training, and were assigned into a control group, a treatment group that sought to amplify pride in the organization's values, and another treatment group where newcomers in call center were exhorted to discover their 'best selves', asked to reflect on a specific time when "you were acting the way you were born to act" and asked to translate the 'personal highlights reel, and then then translate this authentic best self into their new job. Cable et al. (2013) reported that newcomers assigned to his condition stayed longer and performed better for six months and so document persistence of effort. While Cable et al's (2013) intervention usefully focuses on discovering personal strengths and then using them to negotiate a new personal identity in the organization, it says little about the new organizational context facing the new recruit. More importantly, they do not study promotion as an outcome.

Our goal is to complement these interventions by using pre-mortems as a tool to enable new recruits to be prepared to perform their new role, and experience promotions. As we discuss below, pre-mortems are instantiations of mental simulations that harness the imagination. When new recruits are asked to write a story of the events leading to their own failure, it allows for the active discovery of obstacles, and potentially, lowers expectations. Similarly, when new recruits are asked to write a story of the events leading to their own success, it enables new recruits to imagine not only their best self in the context of the new organization, but also the events leading to its activation. It is in this sense that we see our study of pre-mortems as potentially informing research on expectation lowering and best self-activation if not directly replicating earlier interventions. Below, we outline how pre-mortems help prepare new recruits for their first promotion.

PRE-MORTEM AS MENTAL SIMULATIONS: NEWCOMERS AND FIRST PROMOTION

Social psychologists have proposed that adaptive motivation – preparedness – that drives the uniquely human ability to imagine, anticipate, and prepare for future possibilities is critical for effectiveness (e.g. Carroll et al. 2006). Preparedness is an adaptive goal state of readiness that allows people to seize possible opportunities, avoid possible threats, or simply adjust to possible changes before they actually emerge. Moreover, preparedness is a universal need on its own, and not dependent on other needs such as control, or competence or consistency (Carroll, 2010). In a related vein, organizational behavior researchers suggest that preparedness rests on proactivity – that is being future-focused and impact focused (Ashford and Grant, 2008), and there is evidence that those who are proactive do better than those who are passive (e.g., Fuller and Marler, 2009; Thompson, 2005). However, the proactivity perspective is hampered by the fact it “is less clear is how to motivate proactive action at

work” (Wu and Parker, 2011:3) for newcomers. A pre-condition for proactivity is that to display initiative “one needs a good and thorough understanding of what one’s work is” (Fay and Feese, 2011:94), and pre-mortems may be seen as a prompt to proactivity.

Mental simulations assist in enhancing preparedness. In a monograph, Tversky and Kahneman (1982: 7) observed that “there are many situations in which questions about events are answered by an operation that resembles the running of a simulation.” Subsequently, Taylor and Schneider (1989:175) approached mental simulations as coping tools and described them as “the cognitive construction of hypothetical scenarios or the reconstruction of real scenarios”.

Mental Simulations: Process vs Outcome, and Past versus Future :Taylor et al. (1998) distinguish between process and outcome mental simulations. In process simulations, one imagines a goal or an outcome and identifies the steps leading to the goal or outcome. An alternative approach, located in the self-help literature, is outcome simulation. For outcome simulation, the visualization of the outcome, on a repeated basis, can help realize the outcome. In a study of undergraduates, Taylor et al. (1998) asked one group to simulate all the steps needed to get an A grade and another group to imagine they got an A. They found that those in the process simulation increased their effort and their grades.

Van Boven et al. (2009) differentiated between past tense mental simulation (retrospection) and future tense mental simulation (prospection), showing that retrospection was more subject to ‘reality checks’ than prospection. They also reported that both ‘remembering the past’ and counterfactual thinking about a past that might have happened were both more subject to reality checks than prospection. In another study, Kane et al. (2007) found that retrospection was experienced as more difficult than prospection, and it elicited concrete processing and lower levels of construal than prospection.

Pre-Mortems as Narratives: In contrast to other studies that usually ask respondents to list reasons for an outcome and treat the number of reasons as the dependent variable (e.g. Mitchell, Russo and Pennington, 1989), we ask newcomers to imagine an outcome (success or failure, their own or a peer's), and then write a story of the events leading to the outcome in question. Personal narratives, as Fiol (2002) notes, enable individuals to develop a bridge between the old and the new by providing them a vocabulary. Shipp and Jansen (2011) observe that narratives can also help individuals to reimagine the fit between themselves and the organization. More importantly, as Cooren (2010) found, narratives engage and mobilize individuals. When new employees are asked to conduct a pre-mortem, by writing a story of the events that led to failure or success, they are likely to rely on narrative reasoning. Bruner (1986) observed that when people write a story, they build two landscapes simultaneously. The first is the landscape of action where the elements are actors, their goals, situations, and instruments. The second landscape is the landscape of consciousness, what people feel, think, or feel. More generally, pre-mortems also induce individuals to construct interdependent sequences of activities that reveal new information hitherto unknown to the individual (e.g., Hayes-Roth and Hayes-Roth, 1986). As a result, pre-mortems get newcomers to think of additive counterfactuals. Additive counterfactuals refer to actions that may have been taken to create an alternate world, (Roese, Hur, and Pennington, 1999) and they curb reliance on existing associations (Markman, Lindberg, Kray, and Galinsky 2007).

Pre-mortems and First Promotions: Whether the pre-mortem prompt is a success or failure matters, and whether it is for oneself or for a peer, even if fictional, is critical. Below, we argue that failure pre-mortems are more useful than success pre-mortems, and pre-mortems for peers reduce ego-centric biases, and then derive the hypothesis that pre-

mortems of failure for a peer are likely to be associated with first promotion compared to the other conditions.

Asking new recruits to write a story of the events leading to their own success induces individuals to develop a highlight reel of themselves at their best. All the more so if a best self is, as Robert et al. (2005:713) observe that it is an “individual’s cognitive representation of the qualities and characteristics the individual displays when at his or her best”. Roberts et al. (2005) proposed that when individuals have a ‘reflective best self-portrait’, it induces people to realize that best self. (See also Cable et al. 2013). Thus, pre-mortems of own success may activate the best self, but it is unclear whether pre-mortems of a peer’s success have similar effects because of the psychological distance involved.

By contrast, a large body of work suggests that failures, irrespective of whether they are own failures or other’s failures, are more memorable and informative than successes. A staple proposition in social psychology is that bad is stronger than good (Baumeister et al. 2001; Rozin and Royman, 2001) and bad events or outcomes are likely to have stronger and longer-lasting effects than good events/outcomes. Moreover, people devote more time and resources to processing bad outcomes /evaluations than good outcomes/evaluations (Pratto and John, 1991). A number of studies suggest that when individuals reflect upon the obstacles that could arise, individuals are likely to assume other obstacles could unfold (e.g. Sanna and Schwartz, 2004).

When individuals are given a perspective that is psychologically close (their own success or failure) and asked to write a story of the events that led to the outcome, they are likely to be vulnerable to self-enhancing attributions and are therefore, unlikely to be diagnostic. A fast growing body of work suggests that one way to mitigate egocentric biases is to induce individuals to take the perspective of another person. Epley and Caruso (2009:

299) note that “the feature shared by all instantiations of perspective taking is the need to get beyond one’s own point of view to consider the world from another’s perspective... Overcoming egocentrism and one’s own current state is therefore the essence of accurate perspective taking”. A number of studies suggest that cognitive perspective taking reduces the use of stereotypes and decreases egocentric biases in judgement (see Galinsky and Moskowitz, 2000). When an individual asked to take on the perspective of another, such as being asked to “imagine how the other is feeling in that situation” (Batson et al. 2003), or “visualize the incident from the partner’s point of view, and ask yourself why does the partner feel this way?” (Arriaga & Rusbult, 1998), people are likely to be more open and consider a wider range of possibilities, and in turn, be prepared for them. Kross, Ayduk and Mischel (2005) suggest that a self-distanced perspective (taking on the perspective of a peer) induces people to focus on broader context events when reflecting, especially, about negative events (e.g. failure), and reconstrue their own experience to reduce distress. Combining the arguments about failure pre-mortems and peer mortems leads us to expect:

H1) Pre-mortems of failure for a peer are associated with promotion compared narratives in other conditions.

Pre-mortems and Behavioral Contingencies: Pre-mortems combine process mental simulations with retrospection. People live the future backward and engage in time travel; they are told to imagine that they or a fictional peer failed or succeeded and then instructed to write a story of the events that led to the failure or success for themselves or the fictional peer. Mitchell, Russo and Pennington (1989) used a vignette where a woman was seeking to organize a party and randomly-assigned participants into four groups: a) past uncertain (imagine why the party may have been a great success), b) future uncertain (imagine why the party may be a great success, c) past certain (imagine why the party was a

great success, and d) future certain (imagine the party will be a great success) and asked to list reasons for the outcome. They found that people in the certain conditions adduced 30% more reasons than people in the uncertain condition. They also found that people in the certain condition had twice as many action-based words as those in the abstract condition. It is easier for people to imagine multiple reasons for a certain outcome than multiple reasons for uncertain outcomes. However, a list of reasons is an inventory of factors without any time stamp-one has little idea of when these issues matter. By contrast, asking people to develop a story detailing the events leading to a retrospective outcomes allows people to encounter the sequence of events, and thereby, have antecedents and outcomes. Thus, when individuals reflect on a role, they can unpack it and become cued to its complexity (Hadjichristis, Summers and Thomas, 2014), and begin to understand its behavioral contingencies.

In a striking study, Faude-Koivisto et al. (2009) compared mental simulations to implementation intentions in an experiment to understand information processing styles. If goal intentions state what one wants to achieve, implementation intentions suggest that if a behavioral contingency occurs, then a specific response will be initiated. Implementation intentions, by being specific, increase sensitivity to cues and also can become automatic responses to a cue (Gollweitzer, 1987). Faude-Koivisto et al. (2009) sought to test whether mental simulations created an open mind-set and led to the consideration of a greater number of alternatives. They also assessed whether implementation intentions led to a closed mind-set and produced fewer alternatives. They found that those in the mental simulation mindset created more alternatives, but those in the implementation intentions condition were more likely to focus on specific cues and were closed-minded in comparison. In summary, Faude-Koivisto et al. (2009:82) opine that:

“An explorative mind-set associated with mental simulation might be beneficial at the outset of striving for a chosen goal as it allows for an exploration of the best ways to achieve a desired goal.... Individuals might benefit from an explorative mind-set associated with mental simulation at the onset of planning goal-directed actions and when the implementation of novel and complex goals is demanded, but when it comes to finalizing one's plans, formation of implementation intentions seems to be the preferred strategy as the associated implemental mindset provides the necessary closed-mindedness”

The preceding remark suggests that mental simulations are of great relevance to new employees undergoing an important role transition that entails novel tasks and complex goals. Since pre-mortems combine process mental simulations with retrospection with a story format, they are likely to create a mindset or information processing style that leads them to consider a wider range of behavioral contingencies. Building on the prior hypothesis, we hypothesize that pre-mortems increase flexibility and thus, boost the number of different issues represented in the narratives of failure for peers. Therefore:

H2) Pre-mortems of failure for a peer will cover a greater number of behavioral contingencies compared narratives other conditions.

Pre-mortems and Narrative Content: Beyond the sheer number of behavioral contingencies, pre-mortems may systematically affect the types of issues that are covered in a narrative. Kray, Galinsky and Wong (2006) demonstrate that when individuals are exposed to counterfactuals, they become aware of associations between events, and the ideas they generate are likely to be influenced by their pre-existing knowledge of associations among events. We expect all respondents in the pre-mortem for peers' conditions to pay attention to two additive counterfactuals that demonstrate sensitivity to context: a) help-seeking, and b) team processes. A number of studies suggest that two prominent manifestations of proactivity are feedback seeking and advice network building (Morrison,1993; Higgins and Kram, 2001; Ostroff and Kozlowski, 1992) and the two typically go hand in hand. Feedback seeking and advice network building are only possible as actions when individuals

understand the importance of help-seeking, and team processes as triggers of individual performance. The willingness to seek and ask for help is the motivational foundation for feedback seeking and social network building. As one of our respondents stated it “I think things can spiral down if you are too scared to ask questions. You want to know if you are doing something wrong; unless you ask or are told, you will not find out. Communication is key and you need to feel confident enough with your peers to ask questions”. Since newcomers in the high-tech company were assigned to teams, understanding team processes is also likely to be critical. As one respondent wrote: “My manager got me up to speed within the first month. Continued team interaction helped me to get up to speed. Client groups I support began engaging me and began valuing my feedback”. Pre-mortems should help employees consider the social determinants of job performance such as help-seeking and team processes. Therefore, we expect:

H3a) Pre-mortems of failure for a peer are associated with a greater emphasis on help-seeking, compared to narratives in other conditions.

H3b) Pre-mortems of failure for a peer are associated with a greater emphasis on team processes, compared to narratives in other conditions.

Narrative Content and Promotions: Mediation We expect that the salience accorded to help-seeking, and team processes in the pre-mortem also would mediate the effects of pre-mortems on first promotion. Individual-level arguments, often rely on stimulus-response imagery and mediating mechanisms translate how a stimulus leads to a response. Mediation also has also methodological implications as to how a third variable affects the relationship between two other variables.

In a striking study, Galinsky and Moskowitz (2000) suggested that mental simulations evoke a mindset that can get transferred to other domains. They asked participants to read scenarios in which a target person almost won (or almost lost) a trip to Hawaii by switching seats at a rock concert (counterfactual prime conditions), or won or lost

without switching seats (no counterfactual conditions). Priming counterfactual thinking in this way resulted in better performance on a subsequent task -- the Duncker candle problem, in which participants need to recognize that an object can serve multiple purposes -- and on a trait hypothesis-testing task, in which participants need to recognize that disconfirming as well as confirming questions are informative. Such spillovers are ascribed to availability effects; mental simulations are likely to come to mind when considering other tasks in other domains, especially, if they are vivid. More generally, Epstude and Roese (2008) suggest that counterfactual thinking leads to goal-related behavior in either of two ways: a) the content-neutral pathway relates to how counterfactuals in one domain (e.g., academics) influence behavior in another domain (health), or b) a content-specific pathway where counterfactual prime (e.g., I should have studied harder) activates behavioral intentions to study harder. Both pathways are not mutually exclusive and may provide benefits interactively or independently (Smallman and Roese, 2009).

We suggest that the narrative contents of pre-mortems have content-specific effects. We anticipate that the more employees write about help-seeking, and team processes, the more likely are they undertake these activities. Thus, mental simulations facilitate planning (Pham and Taylor, 1999) and increase the probability of promotions. Employees whose narratives emphasize day-to-day activities will be more prepared for their transition in workplaces. They will be able to anticipate and respond to for the inevitable challenges they will face in their day-to-day work. Their focus on the work at hand will improve lead to increased performance. Building on our earlier hypotheses about failure and peer mortems, we expect:

H4a) The emphasis on help-seeking mediates the relationship between pre-mortems of failure for a peer and first promotion rates.

H4b) The emphasis on team processes mediates the relationship between pre-mortems of failure for a peer and first promotion rates.

DATA AND METHODS

Accordingly, we worked with a SaaS company with a global presence that was based in Silicon Valley that recruits hundreds of employees each year primarily in the engineering and product development functions, and less so in sales and marketing. The recruits are overwhelmingly male, and in the engineering/product development areas and are less than thirty years old. Each year, the company receives about thousands of applications for these jobs. For several years, the company was on the list of best employers compiled by Fortune, and also scored highly on the rankings of the most innovative companies. Hence, it is attractive to new recruits for a tour of duty. As per the Fortune survey, 95% or more of the recruits are proud to say that they work there.

New employees go through a boot camp to learn about the company and its culture. Instead of it being a local experience, there is global boot-camp for all new recruits, and they are linked through a digitally shared experience that lasts about five days. The bootcamp or orientation consists of games, exercises, and activities to get new recruits to know one another, and also to learn about the company's strategy, values, and norms. For example, after senior executives present the values of the company, participants are put into chat pods where they comment about how they interpret each value. The bootcamp is a daylong experience and all new recruits before they begin their first day at work. Given the amount of recruiting done by the company, the bootcamp is not a one-shot event, but organized several times a year. All newcomers hired by the firm were subject to the same boot camp experience where the company's strategy, culture, and norms for succeeding were explained to the newcomers. Then newcomers were asked to complete engagement survey after the

boot camp. Newcomers in the control and treatment conditions completed their stories *after* answering the engagement survey.

Survey-takers were randomly assigned to the following conditions (which we describe in more detail below): a control, 1st person or own pre-mortem of failure, 1st person or own pre-mortem of success, 3rd person or peer pre-mortem of failure, and 3rd person or peer pre-mortem of success. Officials and managers in the company were ‘blind’ to the assignment of new employees to these conditions. Completing the task was voluntary as well.

Random Assignment Into Control and Treatment Conditions: New employees randomly assigned to the control were asked to engage in prospection: they were instructed to write “a story that describes what your first year at your employer will be like.” We used a prospection question for a few reasons. First, being asked about one’s future at a company is a standard question for new employees and, as is typical of most on-boarding programs, similar prompts were a part of the company’s on-boarding. Second, it enabled us to have a counterfactual to compare pre-mortem narratives against. Both the control and pre-mortem pertain to one’s future at the company; however, what differs is whether the lens is looking forward or looking in the past. Table 1 details the specific prompts for each condition and Table 2 lists the number of people who participated (compliers) in the various conditions and those who chose not to participate or comply.

Insert Tables 1 and 2 Here

Balance Tests: We sought to assess whether random assignment produced a balanced sample, or whether compliers were different from non-compliers. Tables 3 and 4 provides means for control and treatment groups (aggregated at the pre-mortem level than

types of pre-mortems for the sake of brevity), and indicates whether the differences are significant are not.

Insert Tables 3 and 4 Here

Table 3 shows that there are no significant differences between the compliers and non-compliers in terms of their understanding of the firm's strategy, their fit for the job, their connection with the culture, and the accessibility of the hiring manager. Since voluntary field experiments have compliance issues, Table 4 compares control and treatment conditions for the compliers only, and once again, there are no differences between the control and treatment groups as to their understanding of strategy, values, and the fit for the job.

Dependent and Independent Variables: In order to test hypotheses about promotion, we used a dummy variable, set to 1 when the new recruit was promoted. We identified the behavioral contingencies in pre-mortems by computing the count of topics or issues in the written by newcomers in the control and pre-mortem conditions. We also had controls for business units (engineering/product development, sales and marketing, design, and support functions). We also controlled for different geographic regions (US, EMEA, LATAM, and sub-regions of Asia). We control for whether a recruit is a return hire. Since the employees are mostly male and young, we do not control for gender and age

Structural Topic Modeling of Pre-Mortem Text Data: We draw on structural topic modeling to analyze pre-mortem documents to understand the diversity of topics. Although text data are ubiquitous, it is only recently that probabilistic alternatives to expert coding of themes from texts have emerged as viable alternatives. Like many language processing methods, topic models approach text as a “bag of words” but they allow us to understand how various covariates affect topical prevalence via a linear model. The user supplies the

number of topics in the document and the model assigns each response (called a document) a weight for each topic. All the weights sum for the different topics sum to 1. In this way, documents are modeled as combinations of topics.

The structural topic modeling (STM) approach is an extension of a correlated topic model. STM differs from a correlated topic model by allowing the researcher to include covariates that act as priors for the generation of topics. This additional structure enables these models to leverage known differences between documents to create more distinct topics. As a practical tool, structural topic modeling has been to analyze textual data ranging from newspaper data to Twitter feeds, and technical details of the R package (stm) to estimate such models if provided in Roberts et al. (2015). Because different documents come from different sources, it is natural then to want to allow this prevalence to vary with additional covariates that we have about document sources.

To provide covariates that serve as priors for the structural topic models, we used human coding of the texts that scored along the dimensions of ego and alter focus, process and goal orientation. For our study we used a standard set of diagnostics, such as examining semantic coherence and exclusivity. We found that 14 topics had the best combination of these measures, though we have experimented with different numbers and had broadly similar results.

Estimation Methods and Mediation analysis: We use logit models to test promotion related hypotheses. Note that the logit is a discrete hazard rate model that is equivalent to having a piece-wise exponential model. We used Poisson regression models to test H2 because our outcome was a count of topics. We use ordinary least squares to predict the prevalence of help-seeking and team processes as topics, and normalize our dependent variable. When testing our mediation hypotheses, we follow Imai et al.'s (2010) approach to

mediation analysis. As they note, randomization of the treatment allows the average treatment effect to be estimated without bias, but note that causal mediation analysis requires an additional assumption. Imai et al. (2010) point out that causal mediation analysis requires two assumptions. First, the treatment assignment is assumed to be *ignorable*, that is, statistically independent of potential outcomes and potential mediators. In our study, this first ignorability assumption is satisfied because recruits were randomly assigned to the treatment and control groups. Second, it is assumed that the mediator is ignorable, that is, independent of all potential outcomes given the observed treatment and pre-treatment covariates. Imai et al (2010) proved that under these ignorability assumptions, the average causal mediation effects can be non-parametrically identified (consistently estimated without any functional form and distributional assumptions). They also generalize this result to parametric inference, and calculate the average causal mediation by simulating predicted values of the mediator/outcome variable e . We use the ‘mediation’ package in R to conduct our mediation analysis. The packages also allows us to assess the effect of a mediator on a binary variable.

A challenge in field experiments is that assignment does not guarantee compliance. The usual solution is to conduct an intent-to-treat analysis (ITT) in which the researcher measures outcomes on all participants no matter what their treatment status and then analyzes their outcomes in the condition to which they were assigned. This preserves random initial assignment and also generates an unbiased estimate of the intent to treat. However, it biases estimates downward because a fraction of the sample that elects not to participate do not receive the treatment. One useful approach is to allow a Heckman correction for compliance, wherein, we estimated a compliance equation, and extracted the

inverse Mills ratio as a covariate in the second stage equation of our dependent variable of interest.

RESULTS

We begin by testing H1. Table 5 presents the results. Model 1 is a test of H1 which held that pre-mortems for a peer are most likely to be positively associated with promotions. It is a logit model with all pre-mortem conditions included, and the control condition as the reference category. We use one-tailed tests of significance to test our hypotheses for the following reasons. First, our hypotheses are research hypotheses and not just statistical hypotheses, and so our theory predicts a positive effect of pre-mortems of failure for a peer on promotions. Second, compared to the duration of the boot camp (which was 5 days) our treatment took about 20 minutes or so on average. Given such light-weight treatment, we wanted to ensure that we checked even if there was a directional effect. Third, there was a time lag between the treatment and the promotion outcome; the treatment was offered right after the bootcamp and promotions were awarded 12 months later. Fourth, and most importantly, our balance tests show that there no differences between compliers and non-compliers in terms of observable responses to the bootcamp survey. Finally, and equally importantly, we checked if the unobservables associated with compliance were associated with the unobservables associated with promotion. For example, compliers may be more prone to get help more than non-compliers., or differ on other unobservable dimensions. So we checked whether the residual obtained from a logit compliance equation was correlated to the residual obtained from the logit promotion equation and found that the correlation was only -0.002. This weak correlation increases in our confidence in our directional research hypotheses. Model 1 is a logit model, and shows that 3rd person negative pre-mortems are

the only ones to significantly increase promotions and so there is support for H1. The effect is $\exp(.61)$ and so people in this condition were 1.84 times more likely to be promoted than those in the other conditions.

Insert Table 5 Here

Model 2 in Table 5 tests H2 which held that pre-mortems of failure for a peer would induce participants to consider a wide range of behavioral contingencies compared to other conditions. We operationalized the behavioral contingencies as the count of topics. Model 2 presents Poisson regression estimates and shows that when compared to those in the control condition, all respondents assigned to *any* of the pre-mortem conditions have significantly greater numbers of topics in their narratives. Hence, there is mixed support for H2. Both first and 3 person pre-mortems of failure have very significant effects (at the .01 level) compared to the first and 3rd person positive conditions. The 1st person negative (or story of own failure) has an effect of $\exp(.68)$ and those in that condition were 1.97 times more likely than those in the control to have more topics. The 3rd person negative or failure condition had an effect $\exp(.67)$ and those in that condition were 1.95 times more likely than those in the control to have more topics. The first person and 3rd person negative have roughly similar effects on the number of topics, thereby, implying that a failure prompt is more influential than a success prompt.

Models 3 and 4 present OLS estimates of the prevalence of two topics in the narratives: help-seeking and team processes. Note that prevalence is normalized. Model 3 concerns the prevalence of help-seeking as a topic in the narratives; all pre-mortem conditions have significant positive effects and all effects are significant at the .01 level. A detailed read of Model 3 also shows that those in the 1st person positive had the

strongest effect (.29) but 3rd person negative pre-mortems had a similar effect (.27). So there is no support for H3a. Model 4 pertains to team processes and only respondents in the 1st person success condition are most likely to refer to team processes in their narratives. All other pre-mortem conditions are insignificant. So there is no support for H3b, which held that pre-mortem of failure for peers increase references to team processes.

Insert Table 6 Here

We turn to assessing whether the prevalence of help-seeking and team processes in pre-mortems is associated with promotion rates. Model 5 in Table 6 is a logit model of promotions; and includes the prevalence of help-seeking and team processes as independent variables and both of them have significant positive effects. In order to be conservative, we include the other topics identified by our structural topic model, which range from emotions to project success and task requirements to expectations about the future. None of these control variables has a significant effect. The effect of help-seeking's prevalence on promotion is significant at the .01 level. A one standard deviation increase in the prevalence of help-seeking increases the probability of a promotion by 0.22%. An effect that seems marginal but considering the average promotion rate in this company is 6.2%, and so it is not trivial. Similarly, the effect of team processes is significant at the .05 level and is weaker. A one standard deviation increase in the prevalence of team processes in pre-mortems increases the likelihood of promotion by 0.14%. Both help-seeking and team processes as topics have significant and positive effects on promotion, and so we turn to mediation analyses.

Insert Table 7 here

Table 7 presents the results obtained from the mediation package in R. As noted earlier, causal mediation analysis requires the assumption that the mediator is independent of the outcome and pre-treatment covariates. In our case, individuals who mention help-seeking and team processes in their narratives may also likely to be individuals who reflexively use help-seeking and team processes to adjust to the new organization. Imai et al. (2010) develop an algorithm that it fits models for the observed outcome and mediator, and then simulates potential values of the mediator, potential outcomes, and then computes average causal mediation effects. They also show that that mediation may occur even in the absence of a main effect.

Model 6 presents mediation analyses pertaining to help-seeking. The average causal mediation effect of help-seeking significantly mediates the effect of each type of pre-mortem on promotion. The strongest effect is that of help seeking when there is a 3rd person positive (success premortem for a peer) – it is significant at the .01 level. All other mediation effects are significant at the .05 level. So there is little support for H4a which held that help-seeking would have the strongest mediation effect for pre-mortems of failure for a peer. Unfortunately, when we analyzed the average causal mediation effect of team processes, none of the effects were significant below the .10 level, and there was no support for H4b. We do not present these results for the sake of brevity.

Robustness Tests: The Content of Pre-Mortems: We conducted robustness tests that we do not report for the sake of brevity. We included the length of the pre-mortem as a covariate and found it did not appreciably alter the results. We get similar results when created a Herfinahl index of topic diversity ranging from 0 (one topic) to 1 (many topics). We re-estimated the results using different approaches to account for compliance such as the

control function approach (Wooldridge, 2005) where one inserts the compliance residual in all promotion equation, and we get broadly similar results.

DISCUSSION: A POST-MORTEM OF PRE-MORTEM

Employee socialization has long been approached from an absorption model, one that secures conformity to norms but with unclear benefits for personal initiative. A recent review lamented that “what is less clear is how to motivate proactive action at work” with low-cost but high-payoff interventions (Wu and Parker, 2011:3) -- especially among new employees. Our study drew on the mental simulation literature because mental simulations have been shown to create an open mindset in comparison to implementation intentions (Faure Koivisto et al. 2009). We combined a process mental simulations (Taylor et al. 1998) with retrospective simulations (Van Bowen et al. 2009) in the form of a pre-mortem. Our findings speak to the literatures on socialization and mental simulations.

Our results enlarge our understanding of employee socialization by focusing on the lay concepts new recruits bring to their new jobs. We focused on the lay concept of a tour of duty, where, recruits, especially, in Silicon Valley, stay anywhere between 2-4 years unless they are promoted before they move to a new job. We noted that this was also reflected in the average tenure levels of employees in the Valley. We argued that the lay concept of a tour of duty suggests a focus on promotion than retention, and preparing people to be promoted. To a large extent, interventions during employee socialization such as the RJP, ROPES, or ELP seek to reduce the gap between expectations and reality and improve retention as an outcome. Retention may be useful for the firm, but it may not always benefit the individual. Indeed, individuals may be stuck in firms and unable to move for a variety of reasons. By contrast, our study looks at promotion – the first promotion for newcomers – which is the

first step to career advancement. Promotions benefit the firm and the individual by improving the deployment of human capital and imply that the firm and the employee are both gaining a return on human capital. Our study suggests that a simple intervention such as a pre-mortem can have significant effects on newcomers. We found that those assigned to the pre-mortem condition of failure for peers had the greatest effect on promotions. More generally, all pre-mortem conditions led people to consider a wider number of topics in their stories when compared to those in the control condition and were more likely to devote attention to help-seeking and team processes in their narratives than the control conditions. In turn, the prevalence of help-seeking and team-dynamics in the narratives was significantly and positively associated with promotions.

A related implication is that newcomers who help others (by writing a pre-mortem of failure or success) for a fictional peer benefited the most. Thus, 3rd person negative pre-mortems had a direct positive effect on promotions. Our mediation analyses showed that help seeking was highly significant (.01 level) mediator of the link between 3rd person positive (success) pre-mortems and promotions and there was a less significant (.05) mediation effect in the case of 3rd person negative (failure) pre-mortems. Taken together, these results suggest that taking on a perspective of a peer by developing a story of their failure allows for perspective taking that prepares people to seek help.

The finding that help-seeking mediates the relationship between pre-mortems and promotions is suggestive of individual-level imprinting. Most research on imprinting, as Marquis and Tilcik (2013:41) observe, says little about the dynamics of individual imprinting. Research at the individual level suggests that role transitions are episodes in which “individuals are particularly susceptible to influence ... because of the great uncertainty regarding role requirements” (Ashforth & Saks, 1996, p. 149). Consequently, the “cognitive

models that ... [they] hold can be challenged and replaced with scripts and schema that are more congruent with the new environment” (Dokko, Wilk, & Rothbard, 2009, p. 55; See also Higgins, 2005:38). These arguments point to imprinting as a likely mechanism for the effect of pre-mortems. The time of joining a new organization is a time of uncertainty for the new employee and new employees are open to external influences. While the onboarding process itself has imprinting consequences with employees recall initiation rituals with vivid detail for example, it also can have diagnostic imprints. Moreover, even if one cannot directly observe them, one would expect a diagnostic imprint to be translated into action, thus those who emphasize help-seeking in their pre-mortems may very well be likely to engage in help-seeking.

We do not merely draw on the literature on mental simulation but extend it by combining process and retrospective simulations via a pre-mortem. Unlike Klein (2009) and Kahneman (2011), we modify the pre-mortem in two ways. First, we ensure that people do not just imagine failure but also success. We also consider conditions where they do this not just for themselves but for a fictional peer. Despite being recommended as a lightweight tool to reduce planning fallacies (Klein, 2009; Kahneman, 2011; Sutton and Rao, 2014), there is very little empirical evidence on pre-mortems. We do not know of a field experiment to discern the payoffs from pre-mortems in the real world of organizations. This in part, is a reflection, of the paucity of field experiments in organizational research (Grant and Wall, 2009).

Our study adds to research on narratives. Unlike other studies that asked respondents to develop a *list* of reasons as to why failure or occurred, we ask them to develop a *story* of events leading to success or failure. As Vaara, Sonnenshein and Boje (2016) note that there are very few studies that elaborate the characteristics of narratives as part of personal or

organizational strategy-making. We show that a specific form of a narrative – retrospective stories of the processes leading to failure or success significantly affect promotions. Moreover, we speak to the lament that there is a dearth of comparative analysis of narratives (Vaara, Sonnensheina nd Boje, 2016). We compare different narratives, those written for self (success or failure) and those written to help a peer) and a description of what the first year would be like for those in the control condition. By doing so we complement the work of Sonenshein et al. (2013) who identified three types of narratives; achieving, learning, and helping and showed how they enable individuals to feel a sense of stability. Our analyses show that merely aspirational narratives (in the control condition) do not lead to promotion, it is failure and achievement narratives for peers that matter more. Additionally, research on narrative has been dominated by qualitative analysis, and there is a need for more systematic analysis of large amounts of data (Vaara, Sonnenshein and Boje, 2016). We show how structural topic models can help us analyze texts in more rigorous way than qualitative identification of broad themes.

Our field experiment was conducted in Silicon Valley where the tour of duty lay concept is well established and may not generalize to other settings where the average of tenure of employees is long, and there is an expectation of a career with a single firm. Although the paucity of field experiments has been lamented (Grant and Wall, 2009), our study underscores how lightweight interventions have potential payoffs. It is useful to recall our treatment was lightweight – our experience suggests it might have taken anywhere between 10 to 20 minutes). One can easily think of mediating mechanisms that can augment the impact of pre-mortems. For example, the managers of new employees assigned to the various pre-mortem conditions were blind to the random assignment, but it is possible for organizations to ask new employees to do a pre-mortem and have an initial discussion with

their manager. These initial discussions can also be augmented through lightweight check-in processes, where the employee meet periodically for 10 minutes or so to discuss what each is doing well, and to resolve areas of confusion. We anticipate that such lightweight additions to the on-boarding process can go a long way in putting new employees into a proactive implementation mindset.

We see three other avenues for fruitful research. A natural extension is a lab study that looks at the intra-personal effects of pre-mortems and interpersonal effects of pre-mortems in terms of actual help seeking and team behaviors. This would help us to more explicitly test whether pre-mortems shape adaptive motivation and engage in proactive behavior in new tasks. Moreover, a second possibility is to use stories as prompt to help individuals to discover new stories. Wilson (2011) found that when individuals watched a 30 minute video of people sharing their own story of how their own behavior changed, they could more easily take a new perspective and began to change their behavior. Finally, although our study used the pre-mortem as a prompt to preparedness, a natural extension is to assess whether pre-mortems help groups to make better decisions and to short-circuit the pervasive problem of silence in organizations.

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Table 1 : Experimental Condition Descriptions

Condition	Prompt	Instructions
Control		Write a story that describes what you think your first year at SaaS Company will be like?
1 st Person Failure	Assume it is one year since you have joined. You find yourself disappointed in where you are in the company. Your work has failed to reach the impact you desired. You find yourself asking ‘How could this have happened?’	Write a story below that describes the sequences of events and decisions that led to this situation and your feelings of disappointment. How did things spiral downward? What didn’t you do well that contributed to this situation?
1 st Person Success	Assume it is one year since you have joined. You are excited and in general you feel that the year has exceeded your expectations. You find yourself asking, “How did this happen?”	write a story below that describes the sequences of events and decisions that led to this situation and your feelings of accomplishment. What did you do well that contributed to this situation? How did you continue to improve
3 rd Person Failure	Put yourself in the shoes of Kris, an employee in a similar role to yours. Imagine that it has been one year since Kris first joined. Kris is feeling disappointed as Kris’s work has failed to reach the impact that Kris expected. While having a conversation over coffee one day, Kris describes this situation and asks you “How did this happen?”	Write a story below that describes a hypothetical sequence of events and decisions that led Kris to this situation and feelings of disappointment. How did things spiral downward? What didn’t Kris do well that contributed to this situation?
3 rd Person Success	Put yourself in the shoes of Kris, an employee in a similar role to yours. Imagine that it has been one year since Kris first joined. Kris is excited and in general feels that the year has exceeded expectations. While having a conversation over coffee one day, Kris describes this situation and asks you “How did this happen?”	Write a story below that describes a hypothetical sequence of events and decisions that led Kris to this situation and feelings of accomplishment. What started Kris down this path? What subsequent events made things better or worse?”

Table 2: Compliance Data by Condition

Condition		Number Assigned	Number Responded
Control		360	189
Self	Failure	355	134
		369	147
Kris	Failure	362	166
		356	128

Table 3: Balance Tests: Full Sample Including Compliers and Non-Compliers

	Variable Name	Mean (Premortem)	Mean (Control)	Difference	SD Premortem	SD Control	P
1	Positive Candidate Experience	4.39	4.37	0.02	0.86	0.84	0.58
2	Recruiter Accessible	4.38	4.35	0.03	0.81	0.92	0.63
3	Hiring Manager Feedback	4.08	4.14	-0.06	1.02	0.99	0.59
4	Orientation Engaging	3.58	3.60	-0.02	1.80	1.70	0.28
5	Understanding of Strategy	3.49	3.59	-0.10	1.78	1.69	0.56
6	Connect to Firm's Values	3.84	3.91	-0.07	1.85	1.74	0.70
7	Felt Welcome in First Week	4.47	4.40	0.06	0.82	0.98	0.76
8	Manager Available During First Week	4.45	4.31	0.14	0.91	1.14	0.21
9	Clear on Stakeholder for Job	3.97	3.89	0.08	1.04	1.24	0.54
10	Have Information Required to Succeed	4.13	4.11	0.02	0.94	1.03	0.97
11	Job a Good Fit	4.44	4.35	0.09	0.84	1.06	0.48
12	Would Recommend Firm to Others	4.59	4.56	0.04	0.77	0.91	0.87
13	Good Onboarding Experience	4.21	4.18	0.03	0.95	1.11	0.43
14	Region 1	0.45	0.46	-0.01	0.50	0.50	0.64
15	Region 2	0.04	0.04	0.00	0.19	0.19	0.96
16	Region 3	0.16	0.16	-0.01	0.36	0.37	0.81
17	Region 4	0.34	0.33	0.01	0.47	0.47	0.86
18	Business Unit 1	0.12	0.14	-0.02	0.32	0.35	0.28
19	Business Unit 2	0.10	0.11	-0.01	0.30	0.31	0.44
20	Business Unit 3	0.14	0.14	-0.01	0.35	0.35	0.76
21	Business Unit 4	0.24	0.23	0.01	0.43	0.42	0.73
22	Business Unit 5	0.08	0.06	0.01	0.27	0.24	0.37
23	Business Unit 6	0.33	0.31	0.02	0.47	0.46	0.46

SD is the standard deviation, and p is the probability level. Two tailed tests.

Table 4: Balance Tests: Compliers Only

	Variable Name	Mean (Premortem)	Mean (Control)	Difference	SD Premortem	SD Control	P
1	Positive Candidate Experience	4.50	4.47	0.03	0.74	0.69	0.56
2	Recruiter Accessible	4.41	4.40	0.01	0.76	0.93	0.51
3	Hiring Manager Feedback	4.17	4.17	-0.00	0.92	0.96	0.81
4	Orientation Engaging	3.71	3.79	-0.08	1.71	1.59	0.58
5	Understanding of Strategy	3.66	3.76	-0.10	1.68	1.61	0.76
6	Connect to Firm's Values	4.04	4.07	-0.04	1.72	1.64	0.85
7	Felt Welcome in First Week	4.58	4.53	0.05	0.70	0.68	0.28
8	Manager Available During First Week	4.57	4.43	0.14	0.73	0.86	0.03
9	Clear on Stakeholder for Job	4.08	4.11	-0.03	0.91	0.86	0.62
10	Have Information Required to Succeed	4.20	4.25	-0.05	0.81	0.73	0.82
11	Job a Good Fit	4.55	4.52	0.02	0.70	0.78	0.71
12	Would Recommend Firm to Others	4.68	4.69	-0.01	0.60	0.57	0.97
13	Good Onboarding Experience	4.30	4.32	-0.02	0.80	0.87	0.38
14	Region 1	0.51	0.49	0.02	0.50	0.50	0.71
15	Region 2	0.03	0.04	-0.00	0.18	0.19	0.78
16	Region 3	0.15	0.15	0.00	0.36	0.36	0.90
17	Region 4	0.28	0.31	-0.03	0.45	0.46	0.45
18	Business Unit 1	0.11	0.14	-0.03	0.31	0.35	0.27
19	Business Unit 2	0.09	0.10	-0.01	0.29	0.30	0.80
20	Business Unit 3	0.14	0.13	0.01	0.35	0.34	0.83
21	Business Unit 4	0.22	0.22	-0.01	0.41	0.42	0.85
22	Business Unit 5	0.08	0.07	0.00	0.27	0.26	0.90
23	Business Unit 6	0.37	0.33	0.04	0.48	0.47	0.37

SD is the standard deviation, and p is the probability level. Two tailed tests.

Table 5: Effects of Pre-Mortem Conditions on Number of topics, Prevalence of Help-Seeking and Team processes, and Promotions

Variable Name	Model 1 (Promotions: Logit)	Model 2 (Count of Topics; Poisson Model)	Model 3 (Prevalence of HelpSeeking; OLS Model)	Model 4(Prevalence of Team processes; OLS Model)
1st person Negative Condition (Own failure)	0.389 (0.425)	.688** (.341)	0.025*** (0.007)	0.012 (0.008)
1st person Positive Condition (Own failure)	0.424 (0.378)	.835** (.450)	0.029*** (0.007)	0.017** (0.010)
3 rd Person Negative Condition (Failure of Peer)	0.616** (0.342)	.671** (.268)	0.027*** (0.006)	0.011 (0.008)
3 rd Person Positive Condition (Success of Peer)	0.635 (0.416)	.787** (.460)	0.016** (0.008)	0.003 (0.010)
Return Hire	-0.121 (0.458)	-.114 (.258)	0.015* (0.008)	0.003 (0.010)
Constant	-2.144*** (0.601)	3.61*** (.858)	0.026** (0.011)	0.058*** (0.016)
Region Fixed Effects	YES	YES	YES	YES
Business Fixed Effects	YES	YES	YES	YES
Heckman Correction	YES	YES	YES	YES
Observations	1795	1795	1795	1795
Log-Likelihood	400.889	-2302.90	-100.182	-196.503

*p<0.1; **p<0.05; ***p<0.01. one tailed tests for hypotheses.

Table 6: Effects of Help-Seeking and Team processes Topic weights on Promotions

<i>Model 5 Dependent Promotion: Logit Model</i>	
Topics	
Support	0.450 (0.322)
Innovation	0.563 (0.415)
Emotions	0.024 (0.350)
Kris Negative	0.599 (0.396)
Time Management	0.361 (0.268)
Team processes	0.490* (0.271)
Achieving Goals	0.122 (0.388)
Help Seeking	0.687** (0.321)
Learning	1.033 (0.648)
Roles	0.549 (0.491)
Task Requirements	0.434 (0.281)
Project Success	0.511 (0.376)
Expectations	0.420 (0.386)
Constant	-3.546*** (0.998)
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Region Fixed Effects	Yes
Business Unit Fixed Effects	Yes
Inverse Mills Ratio	Yes
Observations	707
Log Likelihood	-145.392
Akaike Inf. Crit.	340.784

Reference group is the Control group

*p<0.1; **p<0.05; ***p<0.01. one tailed tests for hypotheses.

Table 7 : Help-Seeking as a Mediator of the Pre-mortem and Promotion Link

Variable Name	Average Causal Mediator Effect	
1st person Negative Condition (Own failure)	0.009**	
1st person Positive Condition (Own failure)	.011**	
Third Person Negative Condition (Failure of Peer)	.010**	
Third Person Positive Condition (Success of Peer)	.012***	
Region Fixed Effects	YES	
Business Fixed Effects	YES	
Heckman Correction	YES	

*p<0.1; **p<0.05; ***p<0.01. one tailed tests for hypotheses.

