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A Carnegie plus Self-enhancement (CSE) model of organizational decision making under ambiguity

Pino G. Audia a,*, Sebastien Brion b

- a Tuck School of Business at Dartmouth College, 100 Tuck Hall, Hanover, New Hampshire, USA
- ^b IESE Business School, C/Arnus I Gari, 3-7, 080344 Barcelona, Spain

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ABSTRACT

Although ambiguity is a pervasive feature of organizations, its influence on organizational decision making is often overlooked. We aim to advance understanding of decision making under ambiguity in organizations by combining insights from organizational research within the Carnegie perspective with psychological research on fundamental human motives. We propose the Carnegie plus Self-Enhancement (CSE) model, integrating the influence of self-enhancement—a fundamental psychological motive—on organizational decision-making under ambiguity. To develop our model, we review existing literature on how self-enhancement influences interpretation of ambiguity in organizational decision making. We then expand on this research by linking self-enhancement to individuals' social categories (gender and social class), identifying previously unexplored sources of variation in self-enhancement in organizational decision-making. Our analysis elaborates on how belonging to a social category influences decision-makers' self-enhancement and, consequently, decision-making in ambiguous situations. This approach offers a nuanced decision-making model that considers societal positions, thereby contributing to a more complete understanding of organizational decision-making.

Introduction

Ambiguity defined as "a state of having many ways of thinking about the same circumstances or phenomena" (Feldman, 1989, p. 5) is a pervasive feature of organizations. People operating in different organizational functions and at different hierarchical levels routinely confront situations that require interpretation before they can be acted upon. For example, Gallup reports that fifty percent of the people they surveyed disagree with the statement "I know what is expected of me at work", a perception that denotes ambiguity (Clifton, 2022, p. 98). The pervasive nature of ambiguity and its connection to interpretation have long been central themes in the study of organizations. Among the classic contributions on the topic are March and Olsen (1975, p. 154) who write that "environmental actions and events are frequently ambiguous. It is not clear what happened, or why it happened. Ambiguity may be inherent in the events, or be caused by the difficulties participants have in observing them." Daft & Weick's (1984, p. 284) analysis of organizations as interpretation systems is another prominent example which characterizes interpretation in the face of ambiguity as a key task performed by people in organizations: "people are trying to interpret what they have done, define what they have learned, solve the problem of what they should do next. Building up interpretations about the environment is a basic requirement of individuals and organizations."

Although the interpretation of ambiguous situations is widely recognized in meso and macro level studies of organizations, its influence is often overlooked in models of decision making. This is an important gap because failure to understand how decision makers interpret circumstances that can be plausibly seen in different ways likely hinders understanding of a crucial source of variation in how decisions are made. Illustrating the relative lack of attention to ambiguity, the highly successful research program on heuristics and biases (Kahneman, 2011; Thaler & Sunstein, 2021), due to its focus on how people process precise information that is given to them, generally glosses over the question of how meaning is acquired when key parameters of decision situations are not clear cut (Staw, 2010).

Some progress has been made in identifying different steps in which ambiguity intervenes in decision making (Camerer & Weber, 1992; Hogarth & Kunreuther, 1995), but attempts at integrating interpretation of ambiguous situations and their ramifications are still limited. The Carnegie perspective on decision making is a notable exception. By viewing decision making as an ongoing activity and recognizing the

E-mail addresses: pino.audia@dartmouth.edu (P.G. Audia), sbrion@iese.edu (S. Brion).

^{*} Corresponding author.

importance of experience, work in this perspective has laid the foundation for an explicit treatment of how ambiguity and interpretation impact organizational decisions (Cyert & March, 1963; Greve, 2003; Levinthal & March, 1993; March & Simon, 1958; Simon, 1947). However, this influential body of work is still poorly integrated with contemporary psychological research that sheds light on how individuals assign meaning under ambiguity (Gavetti et al., 2007). Here we build on and extend the Carnegie perspective on decision making by proposing a model of organizational decision making under ambiguity that integrates the influence of a core psychological concept self-enhancement, the motive to preserve or augment the positivity of one's self-views (Fiske, 2004; Taylor & Brown, 1988). We refer to this model as the Carnegie plus Self-Enhancement (CSE) model of organizational decision making under ambiguity.

Long regarded as a fundamental psychological process that influences perceptions and behaviors, self-enhancement is generally treated as the default motive guiding construals of the world that are relevant to the self (Higgins, 2012, p. 135). Despite the voluminous body of work that exists on self-enhancement, research has only scratched the surface of the implications that this motive has for organizational decision making (Audia & Brion, 2007; Audia & Greve, 2021; Ferris & Sedikides, 2018; Jordan & Audia, 2012). We start by reviewing and integrating what is currently known about how self-enhancement influences the assessment of ambiguous situations, and how those assessments influence decisions. Our review and integration include consideration of related accounts such as sunk costs and related constructs such as overconfidence, narcissism, and self-esteem. Next, we develop new theory by drawing on research linking self-enhancement to individuals' social categories - gender and social class - to identify novel sources of variations in how organizational decisions under conditions of ambiguity are made. This new component of the model capitalizes on the growing body of work that documents the unique challenges individuals face in organizations because of the social categories to which they belong. While a wide range of organizational outcomes have been examined in relation to social categories and particularly gender including careers, social networks, and negotiation (Ibarra, 1992; Kanter, 1977; Kray et al., 2001) – less attention has been given to the relationship between social categories and decision making. We examine how belonging to a social category may influence decision makers' self-enhancing propensity and consequently the decisions they make under ambiguity. In so doing, we develop a decision-making model that takes into account the positions that people occupy in society, thereby contributing to a more complete understanding of organizational decision-making.

Ambiguity in the Carnegie perspective on organizational decision making

Scholars have identified several steps in which ambiguity may influence the decision-making process: ambiguity about probabilities (Camerer & Weber, 1992; Ellsberg, 1961); ambiguity about outcomes (Hogarth & Kunreuther, 1995); ambiguity about causality (Mosakowski, 1997); ambiguity about external reality (Weick, 1995). Much of this work, however, has not generated sustained lines of investigation regarding how organizational decisions are made. A notable exception is the Carnegie perspective on organizational decision making (Cyert & March, 1963; March & Simon, 1958; Simon, 1947). In this theoretical perspective, a key step in which ambiguity intervenes in the decision process is the assessment of performance. ¹

Underlying the idea of performance as a key influence in decision making is the notion of "satisficing" introduced by Nobel Prize winner

Herbert Simon (1955) and later applied to organizational decision making in Cyert and March's (1963) seminal book, A Behavioral Theory of the Firm. Rather than seeking to maximize outcomes on any one performance dimension, organizational decision makers are thought to strive to "satisfice" outcomes, meaning that they seek to achieve a desired level of performance as opposed to the highest level of performance that is feasible. Simon's satisficing rule has two direct implications for decision making. The first is that the assessment of whether performance meets a desired performance level influences two decisions that are widely viewed as having an impact on organizational survival and innovation - the decision to make changes and the decision to initiate the search for new solutions (Greve, 2003). When performance is below the aspiration level, the propensity to make changes and to initiate the search for new solutions increases, but this propensity declines when a satisficing level of performance is achieved. The second implication of the satisficing rule is that, when a desired level of performance is achieved, the attention of the decision makers moves to domains in which performance is still below the desired level. There are parallels between this view of decision making and other influential lines of work that emerged later. For example, as March (1994, p. 28) notes, "the "elimination by aspects" model of choice assumes that decision makers do not engage in tradeoffs, they simply consider each criterion sequentially ..." whereas "The "prospect theory" of choice assumes that decision makers are more risk averse when returns are expected to be above a target than when they are expected to be below a target." But a crucial difference lies in the Carnegie perspective's more explicit concern for the performance assessment process that triggers decision making, and ambiguity figures prominently in this process. Indeed, there are many plausible ways in which one might determine whether performance is satisfactory.

The Carnegie perspective lays the foundation for how decision makers deal with this ambiguity through interpretation. Specifically, it identifies two key sources of ambiguity in performance assessment: the multiplicity of goals and the aspiration level against which to compare performance outcomes. Multiple goals often introduce ambiguity because they create room for alternative interpretations of whether an individual, a subunit, or an entire organization is performing well or poorly (Audia & Greve, 2021). The Carnegie perspective addresses this source of ambiguity through the notion of the goal hierarchy (Cyert & March, 1963). By this view, some goals are placed at the top of the hierarchy, which means they are the primary focus of attention. Other goals, placed lower in the hierarchy, become a primary focus of attention only when the goals placed higher in the hierarchy are met. In the original formulation this hierarchy reflects the preferences of those who possess power in the organization. Power may shift over time (Fligstein, 1987; Ocasio, 1994) but, in the period during which the power distribution is unchanged, the assumption is that organizational members adhere to a well-defined goal hierarchy. Later work recognizes that goal hierarchies may be fluid and even chaotic (Cohen et al., 1972) but the key point here is that the multiplicity of goals, a pervasive feature of organizations, is regarded in this work as an important source of ambiguity in decision making.

The Carnegie perspective also highlights a second key source of ambiguity, wherein even when the goal hierarchy eliminates the ambiguity surrounding which goal matters most, assessing performance on the goal at the top of the hierarchy requires a comparison against an aspiration level, the desirable level of performance set by a decision maker. Here too there are options that may enable different conclusions. The Carnegie perspective distinguishes between an aspiration level based on the history of performance - that is, how the organization performed on that goal in the past - and an aspiration level based on the performance of comparable others (Cyert & March, 1963; Greve, 1998; Washburn & Bromiley, 2012). These two ways of constructing aspiration levels may in some situations lead to different conclusions regarding the assessment of performance. This is even more the case when the definition of what is a comparable organization is itself subject to a variety

¹ Research in the Carnegie perspective attributes importance to other sources of ambiguity including. for example, causal ambiguity (Denrell & March, 2001; Levinthal & March, 1993; Levitt & March, 1988; March, 1981).

of interpretations (Audia et al., 2015, 2022; Luger, 2023; Smith & Chae, 2017).

Although the Carnegie perspective identifies multiple goals and aspirations as two sources of ambiguity, it started by making assumptions regarding how decision makers would generally resolve the ambiguity they confront. Researchers assumed, for example, that a goal determined a priori as being the most important would guide the decision to introduce new products, make strategic changes, or increase search (Audia et al., 2000; Audia & Goncalo, 2007; Baum et al., 2005; Greve, 1998; Lant et al., 1992). Similarly, the theory guided researchers to focus on either historical aspiration levels or social aspirations levels or a combination of the two (Greve, 2003). Indeed, early work in this perspective was primarily concerned with establishing whether and how performance influences organizational decisions regarding the propensity to make changes and whether to initiate a search for new solutions. The question of how decision makers form assessments of performance in the presence of ambiguity was less central. Implicitly, most of the early work assumed that decision makers strive to be accurate in their assessments and that they are consistent over time in the way they make these assessments. Later work challenged this view by emphasizing, for example, the temporal inconsistency of goals (Cohen et al., 1972), but did not specify ways in which decision makers tackle the ambiguity introduced by multiple goals and multiple aspiration levels. More recent work, however, has brought in self-enhancement to expand understanding of how decision makers form assessments under conditions of ambiguity and the influence of those assessments on the decision to make changes and the decision to initiate the search for new solutions (Audia & Brion, 2007; Audia & Greve, 2021; Blagoeva et al., 2020; Jordan & Audia, 2012; Joseph & Gaba, 2015; Keil et al., 2023; Lucas et al., 2018). After a review of the initial work that integrates self-enhancement in the Carnegie perspective, we propose a model in which the social categories to which decision makers belong influence the decisions they make under ambiguity.

Self-enhancement complements and extends the Carnegie model

The self-enhancement model of organizational decision making proposed here draws on research in social psychology which holds that motives play a key role in influencing perception and behavior (Fiske, 2004). Unlike purely cognitive views that attribute perception and behavior to the influence of beliefs and other cognitive structures, a motivated cognition view assigns importance to individuals' strivings or motives and the conditions that activate them. A motive is a personal goal, held consciously or unconsciously, that orients how individuals interpret current, past, and future situations that are relevant to the self. Baumeister (1998), in his seminal analysis of research on the self, identifies three main motives: the appraisal motive which is often referred to as the self-assessment motive; the self-enhancement motive; and the self-verification motive. Importantly, he highlights how these motives influence the type of information about the self that people prefer. Here we focus on self-assessment and self-enhancement, given their relevance to organizational decision-making.

The self-assessment motive entails "a healthy curiosity about the self" (Baumeister, 1998, p. 688) guided by the desire to be accurate irrespective of the conclusions one may draw from the available information. When oriented by this motive, people assess information relevant to the self in a neutral fashion meaning that they do not assign weights to different bits of information based on the implications that they have for the self. In contrast, the self-enhancement motive entails "a wish for favorable information about the self" (p. 689) and thus does not assume neutral assessments when people are confronted with bits of information that have diverging implications for the self. When oriented by self-enhancement, people give greater importance to information that implies that they are "competent, likable, morally good, attractive, and so forth" (p. 689). They may spend more time seeking such favorable information. Additionally, when favorable and unfavorable

information is available, they may give greater weight to information that is favorable because it allows them to maintain a positive self-image.

The Carnegie perspective on organizational decision making was built on a theoretical foundation anchored in the implicit assumption that self-assessment is the dominant motive accounting for how individuals process information. Indeed, early work by Simon and March paints a picture of boundedly rational problem solvers who rely on accurate assessments to identify and solve problems evidenced by low performance. By making that assumption, they were able to identify conditions that allow boundedly rational individuals to successfully cope with the informational demands and the ambiguity posed by complex organizations. Steps such as those involving the choice of social comparisons or the allocation of attention to multiple goals were thought to be taken by decision makers who above anything else want to be accurate and are committed to adhere to predetermined rules such as standards of what constitutes an appropriate social comparison or an internally agreed goal hierarchy (Jordan & Audia, 2012).

Consideration of the self-enhancement motive extends this original formulation by allowing for a view of decision makers guided in their perceptions and behaviors by either self-assessment or self-enhancement depending on conditions that trigger motive activation. Whether self-assessment or self-enhancement prevail then influences how decisions are made under conditions of ambiguity. Before we get to how self-enhancement influences organizational decisions under ambiguity, a preliminary step consists of identifying conditions that activate this motive. Three conditions are particularly important: personal involvement, threat, and ambiguity (Audia & Brion, 2007; Audia & Greve, 2021; Jordan & Audia, 2012).

Personal involvement is a necessary condition. Without personal involvement in the decision, self-enhancement is unlikely to guide how decision makers interpret information and make decisions. When people are personally involved in a decision, the evaluation of that decision has implications for their self-image. Those implications have the potential to activate the desire to maintain a positive self-image by interpreting available information in a favorable manner. When people are not personally involved in a decision, the outcomes associated to the decision do not carry implications for the individual's self-image. Consequently, self-enhancement is muted, and the self-assessment motive is more likely to prevail. Examples of situations unlikely to prompt a self-enhancement orientation are taking the role of evaluator (Berg, 2016) and replacing a decision maker whose decisions led to poor outcomes (Staw et al., 1997).

While a necessary condition, personal involvement in a decision alone is not sufficient to orient people toward self-enhancement. The presence of a threat to the person's self-image associated to the decision in which the person is involved is critical to activating self-enhancement. Jordan and Audia (2012) note that people typically possess a positive self-image, and it is only when this image is questioned, contradicted, impugned, mocked, challenged, or otherwise put in jeopardy that the self-enhancement motive is primarily activated. In the model of organizational decision making advanced here low performance is a key source of threat to the image of a decision maker likely to activate self-enhancement because low performance generally casts doubt on the competence of the decision maker and because low performance is an important reason why individuals often lose valued rewards such as higher pay and promotions and may even fail to retain the job they hold (Audia et al., 2022).

While low performance and personal involvement are essential to the activation of self-enhancement, the absence of ambiguity is a condition

² Jordan and Audia (2012) and Audia and Greve (2021) refer to a problem solving orientation versus a self-enhancement orientation. Here, given our more explicit focus on motives that guide how people think and act, we substitute problem solving orientation with self-assessment orientation.

that may suppress this motive. The reason is that entertaining favorable interpretations of information that would otherwise constitute a threat to a person's self-image is more likely when such interpretations are defensible and plausible to the self and to others. When low performance is abundantly clear because, for example, all performance indicators are trending in a negative direction, the room for forming favorable interpretations that are defensible vanishes. A decision maker could still insist that what is in the eyes of a neutral observer clear and indisputable evidence of failure can be seen in a different way, but such interpretations tend to be rarer. Ambiguity, on the contrary, renders favorable interpretations plausible and defensible in the eyes of the decision maker and of the neutral observer thus making selfenhancement more likely. As Sedikides and Gregg (2008, p. 108) note, "blatant self-deception is very difficult." So, a key component of the CSE model of decision making proposed here consists of the conditions under which self-enhancement is likely to guide interpretations under conditions of ambiguity. Personal involvement in the decision, threat in the form of low performance, and ambiguity mark the scenario in which self-enhancement is likely to guide these interpretations. In this model, a self-assessment orientation is thought to prevail in other situations.

Another key component of the CSE model consists of the influences of these two motives on interpretations and decisions. Specifically, it addresses the following question: How will the interpretations that decision makers form under conditions of ambiguity, oriented by either self-assessment or self-enhancement, influence the decisions they make? As we mentioned above, the Carnegie perspective focuses on two dimensions of organizational decisions - whether people decide to change what they did previously and whether they initiate a search for new solutions. Although organizations require both change and search to remain effective over time (March, 1991), studies generally converges on the view that decision makers display a preference for the status quo, opting to maintain current approaches and postponing search to future times (Hannan & Freeman, 1984; Thaler & Sunstein, 2021). The Carnegie perspective, which primarily views decision makers as driven by self-assessment, views a preference for the status quo as coinciding with situations of performance above an aspiration level (Audia et al., 2000) but does not offer a behavioral account of lack of change when performance is below an aspiration level (Greve, 2003; Posen et al., 2018). The CSE model of decision making proposed here adds that low performance does not always prompt change and search. It suggests that change and search are less likely when the self-enhancement orientation prevails over the self-assessment orientation. The reason lies in the interpretation of low performance under condition of ambiguity. The two sources of ambiguity in the Carnegie perspective - diverging aspiration levels and diverging performance on multiple goals - create opportunities for favorable interpretations of low performance that are both plausible and defensible to the self and to others. These favorable interpretations reduce the urge to change and to initiate search for new solutions.

Early evidence of the influence of self-enhancement on organizational decisions comes from Audia and Brion (2007) who examine organizational decisions under conditions of ambiguity stemming from performance on multiple goals. Their focus is on situations in which a secondary performance measure diverges from a primary performance measure. Consideration of two performance measures that vary in importance is particularly revealing because, if the desire to be accurate guides behavior, a primary performance measure should hold more weight in guiding behavior than a secondary performance measure. This implies that, when performance on a primary performance measure is low, it should not make any difference whether a secondary performance measure is above or below an aspiration level. Audia and Brion find, however, that a primary performance measure that falls below an aspiration level instigates less change when a secondary performance measure is above an aspiration level than when a secondary performance measure is also below an aspiration level. In addition, they find that when a secondary performance measure is more favorable than a primary performance measure, individuals rearrange the hierarchy of the two performance measures giving more importance to the secondary performance measure. Audia and Brion (2007) find supporting evidence of self-enhancing interpretations of diverging performance measures and lesser change in an experimental study of individual decision makers (Study 1) and in an archival study of disk drive producers (Study 2)

Joseph and Gaba (2015) study organizational decisions under conditions of ambiguity stemming from divergences in aspirations in the global mobile phone industry. They argue that managers consider how market share changes over time in relation to both historical and social aspiration levels and respond differently to feedback that is consistent (positively correlated), inconsistent (negatively correlated), and ambiguous (weakly linked). Consistent feedback sends an unequivocal signal of either improvement or decline and should trigger decreases or increases in the propensity to make change, respectively. Inconsistent feedback is also easy to interpret, they propose, because it is difficult to paint rosy pictures of situations in which organizations are improving over their past performance but at a slower rate than that of their competitors or when they are doing better than their competitors but worse off than their past performance. In both instances, they predict that inconsistent feedback increases change. Ambiguous feedback, evidenced by performance patterns that are neither distinctly improving nor declining, creates greater opportunities for favorable interpretations. Under such conditions of ambiguity, managers perceive that they can form defensible favorable assessments by, for example, giving greater weight to information that is positive and casting doubt on information that is negative. Because of these favorable interpretations, Joseph and Gaba suggest that ambiguous feedback should reduce change. Their empirical analyses of global mobile phone firms' propensity to introduce new products in response to their market share support these predictions.

Keil et al. (2023) report a more fine grained analysis of the decision to initiate the search for new solutions in the context of pharmaceutical firms. They measure search as the number and type (familiar vs unfamiliar and internal vs external) of drug candidates entering clinical trials. As in Audia and Brion (2007), they focus on ambiguity stemming from diverging performance on multiple goals: a primary performance measure - number of drug candidates passing late-stage clinical trials and a secondary performance measure - number of drug candidates passing early-stage clinical trials. They find that low performance increases search only when ambiguity is low due to both performance measures revealing low values. In contrast, under performance ambiguity, when performance on the primary goal is low but performance on the secondary goal is high, R&D decision makers maintain the same volume of search. In addition, R&D decision makers give preference in their search to internal and familiar drug candidates, a pattern that, they suggest, is consistent with self-enhancement as it reveals a preference for solutions that help decision makers maintain a positive self-image.

Additional evidence supporting the influence of self-enhancement on organizational decisions under conditions of ambiguity that stem from either performance on multiple goals or from diverging aspiration levels comes from studies of spending in R&D, a proxy for search (Blagoeva et al., 2020; Lucas et al., 2018), and strategic changes (Kostopoulos et al., 2023; Lim & Audia, 2020). Overall, despite its relative youth, the CSE model of organizational decision making under ambiguity has received support in both experimental settings and field studies conducted using archival data. What distinguishes this growing body of work on CSE from other established lines of inquiry that seek to explain similar outcomes (e.g., lack of change following failure) is its focus on ambiguity.

Research on sunk costs offers an example in which the CSE model may help account for the observed effects. The so-called sunk cost effect is the tendency to continue an endeavor once an investment in money, effort, or time has been made (Arkes & Blumer, 1985). The key mechanisms behind this tendency are the desire not to be wasteful and not wanting to accept investment loss. There is a potential overlap between

the second mechanism and a CSE account. One could argue that accepting an investment loss is an admission of having made a poor decision and thus a threat to the decision maker' self-image. In other words, not accepting an investment loss may be seen as an attempt to maintain a positive self-image in the face of a threat. As mentioned above, where sunk costs and CSE differ is in the influence of ambiguity. The CSE model of decision making proposed here holds that, when ambiguity is removed, self-enhancement is also removed and thus the probability to continue an endeavor once an investment has been made is reduced. Consider, for example, Garland et al. (1990) oil drilling study in which experienced geologists were presented with scenarios that asked them to decide whether to invest funds in a new oil well following previous investments. As the number of previously drilled dry wells increased, the propensity to invest in a new oil well did not increase, as a sunk cost prediction would suggest, but rather declined, proportionally to the increment in unambiguous negative feedback given by the number of previous dry wells. These findings led the authors of the study to conclude that "respondents could not ignore the diagnostic value of repeated failures that mounted in direct proportion to sunk costs" (p. 726), an observation consistent with the relationship between self-enhancement and ambiguity.

In addition to sunk costs, overconfidence is another construct often used to explain lack of change in response to failure. Moore (2020, p. 22), for example, observes that "overconfidence has been blamed for the sinking of the Titanic, the nuclear accident at Chernobyl, the loss of the space shuttles Challenger and Columbia, the subprime mortgage crisis of 2008 and the Great Recession that followed, the Deepwater Horizon spill in the Gulf of Mexico, and more." In this work, people who are subject to the overconfidence bias are believed to discount the importance of the negative feedback and to be reluctant to change because they possess the belief that they can turn things around. But recent evidence and theory on this multidimensional construct suggests that overconfidence hinges on ambiguity just like self-enhancing assessments of performance do. In a series of experiments, Logg et al. (2018), echoing the findings of Dunning et al. (1989), find that ambiguously defined criteria to evaluate performance and ambiguous feedback enable idiosyncratic definitions of performance that sustain overconfidence. When clarity supplants ambiguity, overconfidence goes away. As Moore (2020, p. 120) notes, "as the standards become clearer, people are less likely to believe that they are better than others", and "ambiguity about how to measure performance accounts for a good deal of "better than average" effects." Moore's view is similar to Tetlock and Gardner's (2016, p. 181) who write that "Research on calibration - how closely your confidence matches your accuracy - routinely finds that people are too confident. But overconfidence is not an immutable law of human nature. Meteorologists generally do not suffer from it. Neither do seasoned bridge players. That's because both get clear, prompt feedback."

By highlighting the situational nature of overconfidence, this work implies that overconfidence is in many instances a manifestation of self-enhancement rather than a stable trait. Narcissism and self-esteem are, on the other hand, stable traits that are related to self-enhancement. Narcissism is a personality trait regarded as a strong disposition towards self-enhancement. Indeed, narcissism is commonly used in organizational research as an assessment of the self-enhancement motive (Ferris & Sedikides, 2018). Self-esteem is defined as a global evaluation of self—the degree to which someone evaluates themselves in a favorable or unfavorable manner overall (Baumeister et al., 2003; Sedikides & Gregg, 2008), and, like narcissism, is thought to elevate the propensity to self-enhance when the context prompts this motive.

The point of these comparisons is not to adjudicate between competing views about the processes underlying the decisions to make changes and to initiate search, but rather to clarify the distinctive perspective of the CSE decision making model proposed here. Building on the Carnegie perspective on decision making, this model places ambiguity and interpretation at the center of the analysis while other work mentioned above either leaves ambiguity and interpretation out (i.

e. sunk costs model) or considers ambiguity but primarily to account for outcomes that deviate from predictions (i.e. overconfidence). The CSE model focuses on a specific form of ambiguity, ambiguity in the assessment of performance, an established and well-developed construct in the Carnegie perspective on decision making, and outlines a) conditions that alter interpretation under conditions of ambiguity and b) influences of these interpretations on two decision outcomes, change and search. Unambiguous negative feedback reduces or even eliminates self-enhancing interpretations of low performance. As a result, it elevates the probability of change and search. Ambiguous feedback stemming from diverging aspiration levels and diverging performance on multiple goals, on the other hand, enables self-enhancing interpretations of low performance that stifle change and search.

Now that we have laid out the pillars of the CSE model, we take the next step which consists of examining the influence of the social categories of decision makers. Although we have emphasized the importance of various features of the decision making context that influence whether decision makers adopt a self-enhancement or a self-assessment orientation, we have thus far omitted the individuals who make decisions, implicitly treating them as homogenous. But the individuals who make decisions are a big part of the context because they carry beliefs that may constrain their propensity to self-enhance even when other features of the situation are conducive to self-enhancement. Research within the Carnegie perspective on decision making recognizes the importance of the social categories to which decision makers belong, but does not examine their ramifications for organizational decision making under conditions of ambiguity. March (1994, p. 62; March & Olsen, 1989) observes that people build their own understandings of themselves using socially based distinctions and that these understandings involve acting in particular ways. Summarizing March's insight, Levinthal and Marengo (2020, p. 83) note that, rather than focusing solely on the consequences of available alternatives and picking the one that in their assessment will produce the best outcomes, decision makers will ask themselves "What kind of person am I? What kind of situation is this? What is my identity and role in this situation? And what does a person of my kind do in a situation like this?" Here we build on that view by developing theory on how the relationship between social categories and self-enhancement may alter the decision-making process under ambiguity.

The influence of social categories in the CSE model

The starting point of integrating social categories in the CSE model is the extensive body of work, spanning sociology and social psychology, which holds that people take into account in their decisions and behavior what "most people" believe or could be presumed to believe about the groups to which they belong. As Ridgeway (2019, p. 72) observes: "If I assume that most people share a belief about a social category (to which I belong), then I expect that they will act in accord with that belief. I assume, as well, that they will judge me according to that belief. As a result, I must take that belief into account in my own decisions and behavior whether or not I personally endorse it." So, for certain groups, these beliefs about what "most people" think about them serve as constraints about how they think and act. While the influence that these beliefs have on individuals have been the subject of extensive research (North & Fiske, 2014), to our knowledge their link to decision making under ambiguity and more specifically to the propensity to let self-enhancement impact decisions has received limited attention.

Nonetheless, what decision makers think may be the reactions of others to their self-enhancing assessments figures prominently in research on self-enhancement. Indeed, it is the mechanism invoked to explain why people are less likely to self-enhance when failure is unequivocal. Kunda (1990, pp. 482–483) writes that "people do not seem at liberty to conclude whatever they want to conclude merely because they want to. Rather, people motivated to arrive at a particular conclusion attempt to be rational and to construct a justification of their

desired conclusion that would persuade a dispassionate observer. They draw the desired conclusion only if they can muster up the evidence necessary to support it." In other words, self-enhancing assessments of low performance are likely when people perceive that they are plausible and defensible to themselves and to others. So, individuals' perception of what others are likely to think of their self-enhancing assessment, whether accurate or not, may serve as a brake to those assessments.

We take Kunda's insight one step farther by adding that people facing the same decision-making context in terms of ambiguity, threat, and personal involvement may differ in their perceptions of how others might react to their self-enhancing assessments because of the social category to which they belong. Social categories, we suggest, deeply affect two important processes: (1) decision makers' expectation of whether others will find their favorable interpretations plausible and defensible; and (2) decision makers' assessment of whether they themselves view favorable interpretations as plausible and defensible given the groups to which they belong. These processes are probably occurring at a subconscious level (North & Fiske, 2014), but for the sake of illustrating this source of variation consider a person who might think the following: Given the social category to which I belong, will people who matter to me embrace my favorable assessment of low performance? Will they find my favorable assessment plausible or defensible? Or will they express disapproval? Given the social category to which I belong, do I view a favorable assessment of low performance as plausible or defensible? Anticipating a negative reaction to a self-enhancing assessment of low performance and wanting to avoid it may instill doubt in the plausibility and defensibility of self-enhancing assessments and steer the decision maker toward refraining from forming such interpretations. Consequently, the social category to which decision makers belong may alter their propensity to self-enhance under conditions of ambiguous performance.

Theory and empirical evidence on the influence of social categories on perception and behavior are broadly aligned with this line of reasoning. As we discuss below, previous studies suggest that social categories influence how people act and think by shaping their expectations about how others will treat them and by facilitating the internationalization of beliefs that are manifested as dispositions. We articulate the connection between this literature and the CSE model by focusing on studies that examine the influence of gender and social class, two culturally significant social categories represented in contemporary organizations.

Gender

Social role theory (Eagly, 1987; Eagly & Wood, 1999; Wood & Eagly, 2012) posits that gender role beliefs endorsed by society and maintained through socialization practices prescribe acceptable behavior for each gender (Rudman et al., 2012). This work suggest that men are generally viewed as agentic (ambitious, assertive, and competitive) whereas women are generally viewed as communal (warm, caring, and other-oriented). Because advancing in organizations often requires displaying behaviors that fall in the masculine stereotype, women, more than men, find themselves deviating from the feminine stereotype. As a consequence of this counter-normative behavior, this line of work has consistently found that behaviors displayed by women that contradict the feminine prescriptive stereotypes result in a backlash, defined as social and economic penalties for behaving counter stereotypically (Rudman, 1998; Williams & Tiedens, 2016). Applying a self-enhancement perspective to these findings suggests that the existence of these penalties limit women's interpersonal and internalized expressions of self-enhancement, consequently affecting their interpretation of ambiguous information.

For instance, women who self-promote or self-advocate, two tactics closely linked to interpersonal expression of self-enhancement, face a backlash for not behaving in the communal and modest ways consistent with their gender stereotype (Eagly & Karau, 2002; Rudman et al., 2012;

Wade, 2001; Wood & Eagly, 2012). This backlash takes the form of more negative interpersonal evaluations, hiring discrimination, and hostility in the workplace (Phelan & Rudman, 2010). The literature on impression management details how women adapt as they seek to avoid these penalties. Bolino et al. (2016) argue that "on the whole, women may be less inclined to use impression management than men and tend to think that doing a good job should be sufficient to achieve success...Consistent with gender role theory, men are more likely to use relatively aggressive and self-serving forms of impression management (such as self-promotion and intimidation) than women. In contrast, women utilize less aggressive and other-oriented forms of impression management (such as ingratiation and supplication) more frequently than men" (p. 390). Studies of academics find converging evidence of gender differences in self-promotion. Women cite their work less than men (King et al., 2017). They also use fewer positive words in the titles and abstract of their papers (Lerchenmueller et al., 2019) and ask fewer questions at academic conferences, an activity that can be construed as self-promotional because it is a public display of knowledge (Jarvis et al., 2022). More precise evidence of gender differences in self-promotion comes from a study in which men and women with equal performance on a math task were asked to form subjective evaluations that would be used by an employer to determine whether to hire the person. Women reported lower self-evaluations than men and the effect persisted when the link to the hiring decision was removed (Exley &

A broader set of findings on the "dominance penalty" for women, in which women who display dominant or assertive behavior face a backlash (Phelan & Rudman, 2010; Rudman et al., 2012), adds to this picture. While confident displays are often found to be beneficial to power and leadership emergence (Anderson et al., 2012; von Hippel & Trivers, 2011), such displays may only benefit men. Carli (1990) found that when discussing in mixed sex dyads on a topic in which they disagreed, women, but not men, who spoke tentatively were more influential and persuasive. More recent research finds that men who speak up promotively - voice expressing improvement-oriented ideas for change - benefit more in terms of status and leadership emergence than do women (McClean et al., 2018). A recent meta-analysis (Williams & Tiedens, 2016) supports and extends these findings, demonstrating that dominance negatively affects women's likeability, but only when expressed explicitly (e.g., direct demands) and not implicitly (e.g., eye contact). Because of the dominance penalty, women may therefore be reluctant to express self-enhancing behaviors for fear of facing a backlash, but moreover, appear to require a more subtle approach to demonstrating their confidence to influence, persuade, or otherwise advance in organizations.

Women are also given fewer opportunities to present themselves in self-enhancing ways. For instance, Kanze et al. (2018) found that investors ask female entrepreneurs more prevention-focused questions and ask male entrepreneurs more promotion-oriented questions, ultimately leading investors to provide male entrepreneurs with more funding. Similarly, women often face a context in which their expertise is less valued (Joshi, 2014), or even detrimental to their success (Thomas-Hunt & Phillips, 2004). Altogether, the backlash effect and dominance penalty affect women's behavior, reducing their expressed self-enhancement. Even when they do engage in self-enhancement, women are rewarded less for it. In a study of the effectiveness of directors' attempts to obtain additional board appointments, Westphal & Stern (Westphal & Stern, 2007) demonstrated that directors increased their chances of board appointments via provision of advice and information to CEOs and ingratiatory behavior toward peer directors. Women (and ethnic minorities) were rewarded less on the director labor market for these behaviors.

Prolonged exposure to gender roles beliefs may also lead to internalization and thereby manifest as dispositions – personality differences between men and women. Indeed, several lines of research demonstrate that gender affects self-enhancing perceptions of oneself. Women exhibit

lower levels of self-esteem than men. In a large-scale cross-cultural examination of self-esteem in 48 countries and 985,937 participants, males consistently reported higher self-esteem than females (Bleidorn et al., 2016), consistent with a previous meta-analyses drawing on studies mostly from Western samples (Kling et al., 1999). In a fine-grained analysis of the gender differences in self-esteem, Magee and Upenieks (2019) find that not only are women lower on self-esteem than men, but that men tend to agree more with positively worded items on self-esteem surveys, suggesting a tendency to self-enhance, while women agree more with negatively worded items, suggesting a tendency to self-derogate.

Gender also has a robust association with narcissism, with men showing higher levels of narcissism than women. In a recent meta-analysis of gender differences in narcissism reviewing 355 published studies (n = 470,846), Grijalva et al. (2015) found that men tend to be more narcissistic than women. The meta-analysis found that these differences were driven by the Exploitative/Entitlement facet and Leadership/Authority facet of the Narcissistic Personality inventory. Men, more than women, are inclined to exploit others as well as be motivated to lead and desire authority and power. These findings are also supported by research on CEOs - Ingersoll et al. (2019) found that female CEOs are less narcissistic than male CEOs.

Gender also affects overconfidence. Soll and Klayman (2004) for instance found that while both men and women display overconfidence in interval estimates (e.g., providing high and low estimates on questions such as "In what year was the first flight of a hot air balloon?" in which they are x% sure the correct answer lay between their high and low estimates), men were almost twice as overconfident as women were in their study. Women's estimates were not more accurate, but their intervals were more than 50% wider than men's, indicating better calibration of their confidence in their beliefs. Other research, using other experimental and survey approaches to measure overconfidence, confirms the tendency of men to exhibit higher levels of overconfidence across a host of domains (Ehrlinger & Dunning, 2003; A. E. Martin & Phillips, 2017; Niederle & Vesterlund, 2007; Pallier, 2003; Reuben et al., 2014), especially those that tend to be perceived as masculine (Correll, 2001).

Research outside of laboratory settings has also shown a consistent pattern of gender affecting overconfidence. Male investors are more overconfident than female investors - resulting in returns that underperform the market due to their tendency to trade frequently and poorly (Barber & Odean, 2000; Bhandari & Deaves, 2006). Among executives, women are less overconfident than women in that they place wider bounds on earnings estimates and are more likely to exercise stock options early (Huang & Kisgen, 2013; Schumacher et al., 2020). Women also display less confidence in their entrepreneurial skills and ease of entry into entrepreneurship (Dempsey & Jennings, 2014; Koellinger et al., 2013; Thébaud, 2010; Tonoyan et al., 2020). Tonoyan et al. (2020) for instance used data collected from 15,742 employees in 22 countries across Europe and found that institutional constraints "accounts for significant and substantial variation in men's and women's startup ease assessments above and beyond controls for both dispositional characteristics at the individual level (specifically, general optimism level, trust in formal institutions, risk-taking propensity, and openness to change) and gendered values at the societal level (specifically, self-enhancement, masculinity, and gender conservatism)" (p. 213).

The few studies that look at gender in the context of financial reporting yield results that are consistent with the literature reviewed above. Ho et al. (2015) in a study of publicly listed firms over a twelve-year period draw a connection between work that suggests that women tend to be less assertive, less aggressive, and less overconfident and their finding that female CEOs are more likely than men CEOs to display accounting conservatism defined as stricter verification standards for recognizing good news as gains than bad news as losses. Specifically, they find that instead of seeking to interpret losses in a

favorable way, they incorporate them in the firm's earnings. Gupta et al. (2020) report a similar pattern showing that female CFOs are less likely than male CFOs to display financial misreporting.

In aggregate our assessment of this literature is that gender role beliefs underlie differences in how men and women act and think that may be tied to self-enhancement under ambiguity. When ambiguity is low, forming and expressing favorable assessments of low performance that are plausible and defensible is challenging for both males and females. As ambiguity increases, the space for forming favorable assessments of low performance expands but not all decision makers will engage in such interpretations. Under high ambiguity, when there is less clarity on how to proceed, mental schemas reflecting past experiences and internalized norms grow in influence as guides to how people think and act. The same schemas that underlie the lesser self-promotion and the weaker overconfidence of women likely prompt hesitation and discomfort in forming self-enhancing assessments of low performance. Taking into account these gender differences, our model suggests that under conditions of ambiguous performance, stemming from diverging aspiration levels and/or diverging performance on multiple goals, female decision makers are more likely than male decision makers to decide to change and to initiate a new search. The reason is that gender role beliefs constrain their self-enhancing orientation. But under unambiguous negative feedback, which greatly reduces self-enhancing interpretations of low performance, this gender difference is less likely to materialize.

Social class

Research on social class as a distinct social category is less developed than the body of work on gender but, as we articulate below, it points to similar implications for understanding the influence of selfenhancement on organizational decisions under ambiguity. Both sociologists and social psychologists examine how social class - defined as one's rank in society based on wealth, education and occupational prestige (Côté, 2011; Ingram & Oh, 2022; Kraus et al., 2010) - shapes perceivers' expectations of people's behaviors and capabilities and how those expectations in turn influence people' behaviors and decisions. Fiske et al. (2002) stereotype content model, with its emphasis on expectations of competence and warmth, suggests that, while higher social class people are generally seen as high in competence and low in warmth, lower social class people are generally seen as low in competence and high in warmth. In so far as perceptions of competence affect how plausible or defensible favorable interpretations of low performance are seen by observers, these expectations of low competence are particularly relevant to our analysis.

Darley and Gross (1983) were among the first to document the link between competence and social class in an experimental setting. In their study participants were asked to evaluate a child's ability after witnessing the child perform in an inconsistent manner. The study varied social class information about the child. Participants viewed a tape that contained environmental cues (e.g., playground, neighborhood, school) indicating either a high or low socioeconomic background. Those who believed the child came from a high socioeconomic class reported that the child's performance indicated a high ability level, whereas those who believed the child came from a low socioeconomic class reported that the identical performance indicated a substantially lower level of ability. Participants in the study expected social class to be linked to competence and relied on a variety of biased processes to confirm their expectation including selective recall of evidence, selective weighting of evidence, and attribution of inconsistent evidence to situational factors.

Outside the lab, Rivera's (2011) study of professional firms' hiring decisions yield additional evidence consistent with the view that social class is often perceived to be associated to competence. Summarizing her qualitative evidence, she writes (p. 88) that "Evaluators had a variety of potential qualities to select from and most frequently attuned to those that were rare, difficult to acquire, required long periods of investment,

and were associated with class-based privilege. Conversely, they tended to de-emphasize those that were more widely available to individuals regardless of socioeconomic background. For example, although they can be a fairly reliable predictor of job success, grades were typically discounted." A key finding emerging from her interviews is that extracurricular activities associated to higher social class were interpreted as indicators of competence.

The belief that others view an individual as having low competence may serve as a constraint in how that individual thinks and acts. Ridgeway and Nakagawa (2017) varied these beliefs in the lab and found that individuals who believed that others viewed them as having low competence showed more deference to the opinions of others, thought that deference would reward them with respect for being seen reasonable, and were more willing to continue working in the group. They also found that, like the backlash effect revealed in gender research, individuals perceived to have low competence were indeed rewarded with respect for showing deference and sanctioned with disapproval when they did not. Together the findings that perceivers expect lower social class individuals to be less competent (Darley & Gross, 1983) and that people show deference when they think that others view them as less competent (Ridgeway & Nakagawa, 2017) are consistent with earlier sociological work that shows that blue collar workers display greater deference by, for example, agreeing with incompatible statements (Lenski & Leggett, 1960).

This incentive for low status members' deference contributes to their motivation to advance the collective interest at the cost of their own interest. In a study of college students about to enter the labor market who engaged in mock job interviews, Sharps and Anderson (2021) found that individuals from lower social class backgrounds displayed less agentic behavior during their interviews (e.g., less assertive behavior), which led observers to evaluate them as less intelligent and socio-emotionally skilled, and led professional hiring managers to view them as less worthy of hire – even though they were as skilled as their higher social class counterparts.

Similar to this evidence about deferent behavior, psychological research focuses also on compliance with established norms, another way in which lower social class people show concern for fitting in, conformity to stereotypes, and gaining acceptance from others. This line of work views social class as a socially and historically constructed environment that people inhabit and within which they acquire understanding of what it means to be a good or "appropriate" person in the world (Kraus, Chen, et al., 2011; Lareau, 2003; Stephens et al., 2014). For example, in upper and middle-class contexts, models of the self emphasize independence: agentic, distinct from others, and focused primarily on personal goals and preferences. By contrast, in working-class contexts, models of the self emphasize interdependence: adjusting to the environment, connecting to others, and responding to other people's needs and preferences. Furthermore, this work has shown that cultural assumptions developed from prior social class experiences can lead people to experience their current contexts differently. Because of their greater attentiveness to other people's needs and preferences, for example, lower class people are more likely to follow driving rules than higher class people (Piff et al., 2012). Specifically, they are less likely to cut off other vehicles at busy intersections and to cut off pedestrians at a crosswalk. Similarly, other studies show that lower social class people are less likely to agree with unethical behavior, to act unethically, and to tell lies (Dubois et al., 2015; Piff et al., 2012).

Consistent with the view that lower social class people are more likely to show deference to others and follow social norms, those lower in social class are also more vigilant about threats and hostility that might stem from the views of others. Lower class individuals have higher threat vigilance – they are more likely than their higher class counterparts to attend to and adopt others' hostile emotions. When faced with an ambiguous social interaction, Kraus et al. (2011), for instance, demonstrated that lower class individuals perceive more aggressive or hostile acts and have higher future expectations of the hostile behaviors

of others. Other research also points to a lack of control emanating from the environments of those with lower social class - because of the anxiety and stress characteristic of resource-scarce environments, those lower in social class focus their attention on the downsides of potential actions (Haushofer & Fehr, 2014). Indeed, those lower in social class have been shown to have a lower sense of control over their environments (Kraus et al., 2009).

Social class beliefs appear to be also internalized as dispositions that attenuate self-enhancement. Indeed, both meta-analytic (Twenge & Campbell, 2002) and large (n = 5555) survey data (von Soest et al., 2018) suggest that lower social class people tend to have lower self-esteem. Those lower in social class have also been shown to exhibit less overconfidence than those higher in social class (Belmi et al., 2020; Varnum, 2015). Lastly, several studies point to lower levels of narcissism among those lower in social class (S. R. Martin et al., 2016; Piff, 2014) and Côté et al. (2021) found that entitlement – a beliefs that one is more important and deserving of resources and privileges than others – were particularly prevalent among those higher in social class.

The behavioral patterns of deference, compliance, attentiveness to the opinions of others, and vigilance about threats coupled with lower self-esteem, overconfidence, and narcissism suggest that, under conditions of ambiguity, when low performance may be interpreted in a favorable way, lower social class decision makers may show greater restraint than their high social class peers in forming favorable interpretations of performance that others may question. The belief that others view them as having low competence coupled with the related tendency to be sensitive to the approval of others may serve as a brake on self-enhancement. In contrast, high social class decision makers who show a greater propensity to defy rules and show insensitivity to the view of others may be comfortable forming favorable assessments of ambiguous performance even when neutral observers might have serious reservations about their plausibility. As a result, under conditions of ambiguous feedback, stemming from diverging aspiration levels and/or diverging performance on multiple goals, lower social class decision makers are more likely than high class decision makers to make changes and to initiate new searches. The reason is that social class beliefs constrain their self-enhancing orientation. But under unambiguous negative feedback which greatly reduces self-enhancing interpretations of low performance this social class difference is less likely to materialize.

Discussion

Although ambiguity is a ubiquitous feature of organizations, models of organizational decision making that directly deal with ambiguity are still rare. The CSE model we proposed deals with a key source of ambiguity that impacts decisions at all levels of the organization: the assessment of performance (Fig. 1). It is well established that low past performance exerts or should exert a significant influence on the decision making process, but past performance is often ambiguous. The CSE model suggests two key sources of ambiguity in the assessment of performance: diverging performance on multiple goals and diverging aspirations against which performance is assessed. It also suggests two key motives guiding the assessment of performance: self-assessment and self-enhancement. Self-assessment implies the desire to be accurate irrespective of the negative implications for the self that one may draw from the available information. Self-enhancement, on the other hand, implies a preference for favorable information that enables the decision maker to maintain a positive self-image.

The CSE model holds that self-enhancement is activated by perceptions of threat to the decision maker's positive self-image that stem from personal involvement in a decision that is associated to low performance. Self-enhancing assessments result in more positive assessments of performance that a neutral observer would make and deter decision makers from choosing to make changes or initiating new searches. But in the CSE model these self-enhancing assessments are conditional on

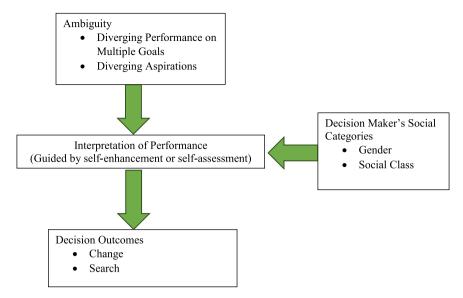


Fig. 1. Carnegie Plus Self-Enhancement (CSE) Model of Organizational Decision Making Under Ambiguity.

ambiguity. As ambiguity dissipates – for example, when performance declines on multiple goals and in relation to both historical and social aspiration levels - self-enhancing assessments of performance become increasingly harder because decision makers do not see them as plausible nor defensible to themselves and to the eyes of others. Self-assessment then supplants self-enhancement. Recognition of low performance, when ambiguity is low, gives the decision maker the impetus to choose to make changes and initiate new searches.

The CSE model we proposed also moves beyond previous work that makes a homogeneity assumption about decision makers by pointing to the social categories of the decision makers as a potential source of constraint on self-enhancement. When performance is low and ambiguity is high and self-enhancement is a possible interpretive route, decision makers do not simply consider the available information. They also retrieve consciously or subconsciously schemas about who they are. what people like them to do in the kind of situations they find themselves in, and how most people expect them to act and think in those situations. These social category beliefs may serve as a brake on selfenhancement by impacting: (1) decision makers' expectation of whether others will find their favorable interpretations plausible and defensible; and (2) decision makers' assessment of whether they themselves view favorable interpretations as plausible and defensible given the groups to which they belong. A review of the literature on two culturally significant social categories – gender and social class - reveals findings that are broadly consistent with the CSE model's contention that social categories may orient the decision making process through their influence on self-enhancing assessments of performance. Specifically, the CSE model proposes that, compared to men and higher social class people, women and lower social class people are less likely to selfenhance when low performance is ambiguous and, therefore, according to the model, are more likely to make changes and initiate searches. This difference does not materialize when ambiguity is low because low ambiguity suppresses self-enhancement across groups.

The CSE model takes stock of the considerable progress made over the past fifteen years in the study of organizational decision making within the Carnegie perspective. The idea that decision makers may be guided by self-enhancement or self-assessment in their assessments of performance and their subsequent decisions is increasingly taken as a starting point in much of the current research. What is often overlooked, however, is the role of ambiguity. The Carnegie perspective and, in this case, its incarnation in the CSE model, offers one of the most developed understandings of a ubiquitous source of ambiguity in the decision making process: the assessment of performance. This is a unique and

valuable feature within the broader landscape of research on decision making that the CSE model helps to highlight. A case in point is our discussion of how the CSE model differs from sunk costs and overconfidence accounts of the failure to change following low performance. Research on sunk costs and overconfidence gives limited attention to ambiguity. But there is evidence suggesting that sunk costs and overconfidence are related to failure to change only when ambiguity is high. Under low ambiguity, sunk costs do not appear to lead to failure to change and overconfidence goes away. The CSE model accounts for those variations arising from low and high ambiguity.

Aside from taking stock of recent work and emphasizing how ambiguity influences decision outcomes, the novelty of the CSE model lies in digging deeper into the mechanisms underlying self-enhancement to draw novel connections to the growing and influential literatures in social psychology and sociology on social categories. March (1994) in his analysis of the contrast between viewing decisions through either the lens of the logic of consequences or the lens of the logic of appropriateness recognizes the influence of roles and identities. The CSE model builds on that insight by applying it to the specific context of two social categories involved in decision making under ambiguity. The result is a CSE model that suggests a) who may be more susceptible to taking a logic of appropriateness – women and lower social class people; b) when – under conditions of ambiguity; and, c) the resulting decision outcomes – more change and more search when performance is low.

Recognizing how the social groups to which decision makers belong influence the way they think, act and make decisions expands the contribution of the Carnegie perspective to the study of decision making particularly given the need for organizations to manage an increasingly diverse workforce and to understand the performance implications of diversity (Hellerstedt et al., 2023). Models of decision making that treat decision makers as devoid of beliefs about who they are and what people like them do or are expected to do in certain situations may overlook the kind of interpretive variations highlighted by the CSE model. The CSE model therefore extends the Carnegie perspective by incorporating both a societal (social categories) and psychological (the core self-motive of self-enhancement) lens to more comprehensively understand how individuals make decisions in organizations.

Research within the Carnegie perspective has often favored empirical settings in which the focus is on executive level decisions (Greve, 2003). This is in part a choice of convenience because the outcomes of executive level decisions such as acquisitions (Kuusela et al., 2017) or product changes (Joseph & Gaba, 2015) are more directly observable than the outcomes of decisions occurring at lower hierarchical levels.

Early Carnegie research, however, recognized the importance of studying a wide range of decisions occurring also at the subunit level (Cyert & March, 1963). There are, of course, notable exceptions to this pattern including experimental studies (Billinger et al., 2021), studies of inventors (Audia & Goncalo, 2007), and studies of subunit level decisions (Keil et al., 2023). Given that the representation of social categories at the top of organizations is still quite limited, we see the CSE model as an encouragement to take a broader look at the type of decisions that people make in organizations. Besides gaining greater variation in social categories, such studies may also consider the extent to which ambiguity is a function of the operational nature of the decisions being taken. The degree of formalization may take away ambiguity. On the other hand, ambiguity may be more endogenous to the decision making process at higher hierarchical levels (Audia & Greve, 2021).

Within the context of the extensive literature on self-enhancement, the CSE model provides three important insights. The first is that it highlights the influence of self-enhancement on the organizational decision making process, a domain that, despite its tangible consequences, has received limited attention in work on self-enhancement (Ferris & Sedikides, 2018). The second is that it identifies several conditions that elevate or suppress self-enhancement, ambiguity being the most prominently featured. The emphasis we place on ambiguity echoes early findings from Dunning et al. (1989) who reported that poorly defined criteria enable more favorable self-assessments. The CSE model specifies ambiguity in the context of the assessment of performance, a highly recurring and highly impactful process in organizations of all kinds. Third, contrary to frequent claims in support of the universality of self-enhancement across, cultures, ages, genders, and historical periods (Sedikides, 2020; Sedikides et al., 2015), the CSE model takes a more measured view, highlighting the influence of social categories on self-enhancing assessments of performance. The literature on social categories we reviewed and our theoretical analysis of social categories as constraints on the propensity to form plausible and defensible favorable assessments of performance under ambiguity present a more nuanced picture of who is more likely to self-enhance and when. The CSE model points to membership in social categories as a constraining force on whether individuals assess that self-enhancing interpretations of ambiguous performance are plausible and defensible to others, and in turn, internalize those self-enhancing beliefs.

While much of the research on social categories focuses on the differential treatment people receive as a function of the groups to which they belong (e.g., Reuben et al., 2014), our analysis is more similar to work that focuses on how belonging to a social category impacts the way people act and think (Correll, 2001). We reviewed, for example, work on gender and self-promotion and work on social class and rule following. We add to that line of inquiry by focusing on the decision making process and decision outcomes such as change and search. We also draw a deeper connection between social categories and self-enhancement. Several studies we reviewed point to differences in narcissism and overconfidence between men and women and higher and lower social class people, for example. By developing new theory about how, under ambiguity, social categories influence the plausibility and defensibility of favorable interpretations of low performance, we suggest a more nuanced situational approach. Besides testing empirically the CSE model, we think that future research could also extend it by considering other social categories such as race and specific instances of social category intersections. We anticipate that the variations in self-enhancement under ambiguity that we proposed for men and women and higher and lower social class people apply to racial category distinctions. Recent research on the "bamboo ceiling", for instance, points to assertiveness, arguably an internalized belief about how defensible and plausible one's self-enhancing beliefs are, as a possible mechanism accounting for the underrepresentation of East Asians in the upper echelons of organizations (Lu et al., 2020, 2022). Future research could more closely examine the effects that such internalized beliefs have on decision making. The literature on race, moreover, points also to important additional variations arising from the intersection of gender and race (Thatcher et al., 2023). Similarly, based on our analysis, we would expect the intersection between gender and social class to also warrant additional analysis. Future work may therefore benefit from taking into account specific instances of intersectionality relevant to an understanding of the decision making process.

In closing, because ambiguity is a pervasive feature of organizations, a more complete understanding of how decisions are made in organizations requires taking into account the interpretive process by which individuals assign meaning to ambiguous information. Motives such as self-enhancement and self-assessment that are activated by features of the decision making context guide interpretation and influence consequent decisions. But decision makers bring to these situations more than the ability to process decision related information. Beliefs about who I am, what people like me do in this kind of situations, what most people expect people like me should do in this kind of situations may constrain the influences of the context and in some instances serve as a brake to self-enhancing assessments.

Declaration of Competing Interest

The authors declare that they don't have any conflict of interest related to the submission.

Data Availability

No data was used for the research described in the article.

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