

**ASSESSING THE IMPACT OF STATUS INFORMATION CONVEYANCE ON THE DISTRIBUTION OF
NEGATIVE REWARDS: A PRELIMINARY TEST AND MODEL**

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Abstract

Purpose

To determine the role of status information conveyance in a negative reward allocation setting.

Methodology

Using previously published experimental data we test the relative effects of status information conveyed by expressive and indicative status cues on the allocation of a negative reward. Further, we construct an alternative graph theoretic model of expectation advantage which is also tested to determine its model fit relative to the classic model of Reward Expectations Theory.

Findings

Results provide strong support for the conclusion that status information conveyed by expressive status cues influences reward allocations more than information conveyed by indicative cues. We also find evidence that our alternative graph theoretic model of expectation advantage improves model fit.

Originality

This research is the first to test the relative impact of expressive versus indicative status cues on the allocation of negative rewards and shows that status characteristics can have differential impacts on these allocations contingent on how characteristics are conveyed. Furthermore, the research suggests a graph theoretic model that allows for this differentiation based on information conveyance and provides empirical support for its structure in a negative reward allocation environment.

Research limitations

Future research is required to validate the results in positive reward situations.

Social implications

The results show that an individual's expectations are altered by varying the manner in which status information is presented thereby influencing the construction and maintenance of status hierarchies and the inequalities those structures generate. Thus, this research has implications for any group or evaluative task where status processes are relevant.

Keywords: reward expectations theory, status cues, criminal evaluations

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Introduction

Social science has repeatedly shown that varying the manner in which information is conveyed influences how individuals think about that information and consequently alters their expectations, decision making, and judgements. For example, the framing literature suggests that presenting equivalent choices and their outcomes as a gain, as opposed to a loss, results in less risk taking (Tversky & Kahnemann, 1981). The more recent “nudging” literature suggests that the order in which information is presented will result in different choices. For example, presenting individuals with healthier options before less healthy ones in a cafeteria line will result in healthier eating habits (Thaler & Sunstein, 2008, p. 1). Further, social norms are more influential when the information about them is acquired by observing others compared to simply being told the norm (Krupka & Weber, 2007; Wernera, Sansonea, & Brown, 2008).

Different forms of information also affect the allocation of positive and negative social rewards, such as vacations and prison sentences, by third parties (Leventhal 1976). For example, Baker (1974) finds that information regarding the equity or lack thereof between two individuals causes a third-party allocator to reduce the inequity by allocating more rewards to the disadvantaged individual. Further, Kazemi and Tornblom (2014) find reward allocations diminish as the categorization of a reward recipient moves from a member of a group, to a member of a dyad, to a single individual. Finally, when allocators are provided equivalent information but the resource allocation problem is framed as “delivering a good” versus “withholding a bad” the use of non-egalitarian principles (i.e. merit or ability) as a just means to make allocation decisions increases (Gamliel & Peer, 2006).

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These results are important for status researchers working in the reward expectations branch of the expectation states paradigm where the allocation of rewards is the phenomenon of interest. Expectations States Theory is a theoretical research program that seeks to explain inequalities that emerge from group hierarchies based on the characteristics of individuals working in collectively-oriented task situations (Berger, 1958; Berger & Connor, 1966, 1969). The Reward Expectations Theory branch of the program argues that these characteristics will also generate inequalities in situations where rewards such as money or medals are to be allocated as part of the collective task or upon completion of one (Fisek & Wagner, 2003).

Reward Expectations Theory assumes that all salient characteristics that differentiate individuals to produce a hierarchy have equivalent impacts on the allocation of rewards. However, the discussion above suggests the presentation of relevant information will affect these allocations. To date, Reward Expectations Theory has neither theoretically nor empirically investigated the impact status information presentation has on allocation decisions. However, the potential effect of altering an individual's expectations and judgements through the conveyance of status information has been categorized within the expectation states program as "status cues" (Berger, Fisek, Norman, & Wagner, 1986; Fisek, Berger, & Norman, 2005). These cues may be *indicative* – those that label a person as possessing a certain status such as a college diploma or a statement "I am African American" – or *expressive* – those that are a product of or "expressed" during an interaction like ethnic or regional dialect, speech style, or emotional expressions (Berger et al., 1986, p. 4-5). Since both types of cues can reveal status information about an individual they can generate inequalities in group interactions and expectations. Berger et al. (1986) suggest that when expressive and indicative cues provide conflicting information,

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expressive cues will be weighed more heavily in determining an individual's status. Empirical tests confirm this assertion (Rashotte & Smith-Lovin, 1997; Walker, Doerer, & Webster 2014).

In addition to a dearth of research investigating the differential impacts of status information conveyance, Reward Expectations Theory typically focuses on the allocation of positive rewards. However, several social situations involve the allocation of negative rewards, such as the distribution of sanctions or punishments. By focusing solely on the allocation of positive rewards, current RET research excludes those negative rewards individuals want to *avoid* (Skinner 1953). One exception that uses Reward Expectations Theory to explain the allocation of negative rewards is the research of Dilks, McGrimmon, and Thye (2015).

The Dilks et al. (2015) study investigates the influence of status processes on third party evaluators tasked with allocating a negative reward. Specifically, research subjects were asked to read a vignette describing a criminal case involving an incident of drunk driving and allocate a negative reward operationalized as a sentencing recommendation. The vignette includes court testimonies where the status of the offender and victim are varied. Thus, the paper focuses on how the status of the offender relative to the victim influences recommended sentencing and two of its important antecedents, evaluations of an offender's "dangerousness" and the severity of the crime. Results indicate that status differences strongly influence the antecedents to sentencing decisions but not sentencing decisions directly. Although the paper extends our knowledge regarding the influence of status processes on the allocation of negative rewards, we believe there are further insights that can be gleaned from the study that are of importance to status researchers in general and to those working specifically in the reward expectations branch of Expectation States Theory.

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In the Dilks et al. (2015) study the conveyance of status information is varied. One set of status characteristics is presented in indicative form while another is presented expressively. In contrast to the original analysis we select and analyze specific conditions that allow us to contribute to Reward Expectations Theory in several ways. First, we continue to refine our knowledge of status processes in negative reward allocative settings. Second, the data from these selected experimental conditions allow us to conduct the first test of the relative impacts of differences in the conveyance of status information on negative reward allocations and in a situation where status cues do not conflict. This test permits the determination of which manner of status information conveyance - expressive versus indicative - has a greater effect on reward allocations. Our results show that, contrary to Reward Expectations Theory, status characteristics can have differential impacts on the allocation of rewards dependent on how status information is presented. Motivated by these results we use the strong and weak cue gestalt literature (Fisek, et al., 2005) to develop a modified graph theoretic model of reward expectations when status cues are present. We then compare the predictive ability of expectation advantage under the classical versus our modified cue gestalt model of reward expectations. Using regression analysis, fit statistics and model selection tests, we show that expectation advantage calculated using our modified model is statistically more predictive of reward allocations.

Reward Expectations Theory

Expectations States Theory (hereafter EST) is a theoretical research program that seeks to explain the emergence and maintenance of group hierarchies among those working in collectively-oriented task situations (Berger, 1958; Berger & Connor, 1966, 1969). In these settings, individuals form various *expectations* for themselves and others regarding the group task. Once formed, these expectations hierarchically rank group members into a *power and*

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prestige order that shapes interaction patterns among the group as they work to complete a collective task. Individuals higher in the power and prestige ordering are given more opportunities to participate, participate more, are more influential, and are evaluated more highly than those at the bottom of the ordering.

To date, EST research has identified three types of expectations that structure power and prestige orderings. *Performance expectations* are beliefs about the abilities and task competency of oneself and others while *valued status expectations* are “anticipations of the status positions to be held by self and others” (Berger & Webster, 2006, p. 269). Relevant to the current research, are *reward expectations* – “implicit, shared, normative anticipations about who ‘will and ought to’ get what” (Hysom & Fisek, 2011, p. 1269). The Reward Expectations Theory branch of EST, argues that in situations where differential rewards such as money or medals are to be allocated as a part of a collective task or upon completion of one (Fisek & Wagner, 2003), individuals will form reward expectations for themselves and others to determine these distributions (Berger, Fisek, Norman, & Wagner, 1985, 1998). These reward expectations create a power and prestige order that ranks individuals in terms of their “deservedness of rewards.” Those believed to deserve greater rewards are placed at the top of the ordering and those seen as deserving fewer rewards are relegated to the bottom. Reward expectations take on a “moral quality” absent with either performance or valued status expectations by suggesting there is only one right or proper way to distribute certain rewards (Berger et al., 1985, 1998).

Reward expectations are derived from two types of characteristics: diffuse and specific.¹

A *diffuse status characteristic* (D) is a culturally-specific attribute that involves at least two

¹ Correll and Ridgeway (2003) note that performance expectations can arise from social rewards and behavioral interchange patterns. The derivation of performance expectations from rewards is considered the *reverse process* in RET (Berger et al., 1985, 1998). This process is not applicable in the current research. Correll and Ridgeway (2003) also note that performance expectations can arise from behavioral interchange patterns (Fisek, Berger, & Norman,

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differentially evaluated states wherein 1) one state of D is more highly valued than the other state, 2) to each state of D there corresponds a distinct set of specific expectations, and 3) to each state of D there is also a corresponding set of general expectations (Berger, Fisek, Norman, & Zelditch, 1977). Empirical research finds that educational attainment, race, gender, age, beauty, and occupation operate as diffuse status characteristics (e.g., Cohen & Roper, 1972; Freese, 1974; Kelley, Rogalin, Soboroff, Lucas, & Lovaglia, 2009; Lockheed & Hall, 1976; Markovsky, Berger, & Smith, 1984; Meeker & Weitzel-O'Neill, 1977; Webster & Driskell, 1978, 1983; Webster, Hysom, & Fullmer, 1998; Zelditch, Lauderdale, & Stublarec, 1980). A *specific status characteristic* (C) also has at least two differentially evaluated states but satisfies only conditions 1) and 2), not 3). For example, mathematical or reading ability may function as specific status characteristics.

Status characteristics provide information about reward expectations via various *referential structures* that describe the typical and socially validated relationship between each state of a characteristic and its level of goal objects (Berger et al., 1998). *Goal objects* are any culturally recognized instances of tangible rewards (e.g. money, medals) or symbolic rewards (e.g. honors, privileges, valued positions, titles, certificates) that are available for allocation (Berger et al., 1985, 1998; Hysom & Fisek, 2011). *Categorical referential structures* link goal objects to diffuse characteristics, thus determining reward expectations based on “who you are.” These structures assert that those who occupy the high status states of common diffuse characteristics (e.g., whites, men, the highly educated) will be seen as deserving of more socially valued goal objects as compared to low status individuals. In contrast, *ability referential structures* link allocations to specific status characteristics meaning rewards under these

1991). However, to our knowledge this process has not been applied to the formation of reward expectations in RET research.

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structures are distributed based on “what you can do” or “what are your competencies.” These structures are associated with the belief that people who are more competent should receive more rewards than people who are less competent.

Berger et al. (1985, 1998) also identify a third type of referential structure that is not derived from either diffuse or specific status characteristics. *Performance-outcome structures* relate reward levels to actual performances or accomplishments in collective task settings. Here rewards are based on “what you have done” and generally assume that those who succeed at tasks should receive more rewards than people who fail at them. These referential structures become salient only when individuals’ performances are evaluated (Hysom & Fisek, 2011).

A series of core assumptions outlines the *status generalization process* from diffuse and specific characteristics to the formation of reward expectations and to the final allocation of goal objects (Berger et al., 1985, 1998).² First, to affect the formation of reward expectations status characteristics must be salient in a reward situation. According to the *saliency assumption*, a status characteristic is assumed to be salient if 1) it is initially and explicitly defined as relevant to the allocation of goal objects in the current situation or 2) it is a basis for differentiation among the actors in the situation. If a characteristic meets one of these conditions, it becomes relevant to the distribution of goal objects by activating a referential structure. The *activation of referential structures assumption* states that if there exists a referential structure in which the different states of a status characteristic are associated with different reward levels, the referential structure becomes activated in the situation.³ For example, suppose the diffuse status

² This process mimics the generalization process that produces power and prestige orderings based on performance expectations derived from diffuse and specific status characteristics (see Berger et al., 1977). Furthermore, reward expectations can be formed simultaneously with performance expectations if the distribution of rewards is part of the collective task or happens after it (see Berger et al., 1998, p. 143).

³ In task settings, this assumption is referred to as the *burden-of-proof process*. While both assumptions follow a similar logic connecting differentiated status characteristics to outcomes, they refer to different components of a collective task setting. According to Berger et al. (1985, p. 230) the burden-of-proof process deals with the task

characteristic gender is salient in a reward situation. If there exists a categorical referential structure that associates gender differences with differential goal object allocations, that structure will be activated in the situation. Thus, individuals will come to *expect* certain reward levels consistent with that referential structure, namely higher levels of rewards given to men and lower reward levels distributed to women (Ridgeway 2007).

The *sequencing assumption* states that once status information is salient and reward structures are activated, they will affect the allocation of goal objects so as long as the set of individuals in the collective task setting remains constant. If a person enters the setting or if someone exits, status information and relevant reward structures will be updated per the saliency and activation of referential structures assumptions as previously described.

The final two assumptions of RET describe how individuals calculate aggregated reward expectations and ultimately allocate goal objects. First, the *aggregation assumption* explains how status information is combined into positive and negative subsets to form aggregated reward expectations. Specifically, individuals combine all positive status information about another into a single subset (e_x^+) and then similarly combine all negative status information into a second subset (e_x^-). These subsets are then combined to form an aggregate reward expectation for each person ($e_x = e_x^+ + e_x^-$). In the last assumption, these aggregated reward expectations are translated into allocative behaviors via a series of comparisons. The aggregated reward expectation for any two individuals are compared (e.g., $e_x - e_y$) and the greater the expectation for one individual

components of situation and connects differentiated diffuse and specific characteristics to task outcomes via generalized or abstract ability implications, respectively. In contrast, the activation of referential structures assumption deals with the reward component of a situation and connects differentiated diffuse and specific characteristics to reward outcomes through categorical and ability referential structures, respectively. Although these processes are assumed to act independently, under certain conditions both processes may occur in the same interaction, namely if both a task and reward component are present as part of the collective task.

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over the other, the higher their allocation of the goal objects in the situation. This comparison process is repeated for all individuals participating in the collective task to determine the overall power and prestige ordering and the “proper” distribution of rewards.

RET uses signed graph theory to represent its arguments and calculate aggregated reward expectations.⁴ Figure 1 illustrates these calculations for two actors, p and o . One diffuse status characteristic (D) and one specific status characteristic (C) differentiate the two actors and are thus salient. These actors are linked through *possession relations* to different states of D and C. The positive sign next to D and C for actor p indicate that they possess the valued state of these characteristics while o occupies the non-valued state, as indicated by the negative signs for D and C. Both D and C are then connected via *relevance relations* to various states of R, an activated referential structure. The sign for R coincides with the previous sign for D and C. For example, since p has the positively valued state of the diffuse characteristic (D+), they are subsequently linked to the positive state of the referential structure (R+) indicating beliefs about higher levels of reward expectations. The final element of the graph, GO, represents the allocation of goal objects. Actors linked to the positive goal object state (GO+) are expected to receive more rewards in the situation than those linked to the negative state (GO-). Also, note that the oppositely evaluated states of the salient status characteristics are connected via *dimensionality relations*. These relations have a negative valence and connect actors to the oppositely signed state of GO.

[Figure 1 about here]

To calculate aggregated reward expectations and ultimately one actors' expectation

⁴ These are the same graph theoretic procedures used to calculate performance expectations (see Berger et al., 1977). Melamed (2011) offers a calculator to compute each set of values as well as his method for graded status characteristics: <https://u.osu.edu/melamed9/publications-and-supplemental-files/>.

advantage over another, the signs of each path of the graph theoretic model as well as their lengths are used. The sign of a path is determined by multiplying the valences of the elements connecting an actor to a final goal outcome state while path length is merely a count of the number of relations between an actor and the final goal outcome state. In Figure 1, p is connected to the positive state of expectations for goal objects via two positively signed paths of length three: $p - D^+ - R^+ - GO^+$ and $p - C^+ - R^+ - GO^+$. In addition, via dimensionality relations, p is also connected to the negative state of expectations for goal objects via two positively signed paths of length four: $p - D^+ - D^- - R^+ - GO^+$ and $p - C^+ - C^- - R^+ - GO^+$. By symmetry the opposite is true for actor o meaning they are connected to GO^- through two negatively signed paths of three and to GO^+ through two negatively signed paths of four. Thus, for each path connecting an actor to one GO state, there is a longer, equivalently signed path connecting them to the oppositely signed GO state.

According to the aggregation assumption described above, actors combine all positive reward information (from positively signed paths, e_x^+) and all negative information (from negatively signed paths, e_x^-) using the following equations where L_1, \dots, L_n represent the length of these paths.

$$e_x^+ = \{1 - [1 - f(L_1)] \dots [1 - f(L_n)]\}$$

$$e_x^- = \{1 - [1 - f(L_1)] \dots [1 - f(L_n)]\}$$

To illustrate these calculations for actors p and o in Figure 1, we employ the values offered by Balkwell (1991) for $f(L_i)$.⁵

p's Positive Paths

⁵ The other estimates are those based on Fisek, Norman, and Nelson-Kilger (1992) and Berger et al. (1977).

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$$\begin{aligned}
 e_p^+ &= \{1 - [(1 - f(3))[(1 - f(3))[(1 - f(4))[(1 - f(4))]]]\} \\
 &= \{1 - [(1 - 0.41)][(1 - 0.41)][(1 - .15)][(1 - .15)]\} \\
 &= 0.75
 \end{aligned}$$

p's Negative Paths

$$\begin{aligned}
 e_p^- &= [1 - (1 - f(0))] \\
 &= [1 - (1 - 0)] \\
 &= 0
 \end{aligned}$$

p's Aggregated Expectation

$$\begin{aligned}
 e_p &= e_p^+ + e_p^- \\
 &= 0.75 + 0 \\
 &= 0.75
 \end{aligned}$$

Notice that because p has no negative status information (they occupy the high states of both D and C), their negative subset value is zero ($e_p^- = 0$), thus making their aggregated reward expectation value equal to e_p^+ (0.75). By symmetry, because o possesses all negative status information, their aggregated reward expectation value is -0.75. Thus, p 's expectation advantage relative to o is

$$\begin{aligned}
 e_p - e_o &= 0.75 - (-0.75) \\
 &= 1.50
 \end{aligned}$$

meaning that in the actual allocation of goal objects, p is expected to receive a larger portion of rewards relative to o .

The scope of RET and status generalization was originally limited to collectively-orientated task situations where goal objects may be allocated as either part of the task itself or as a separate task once the original task is completed (Fisek & Wagner, 2003). These situations have two key features (Correll & Ridgeway, 2003). First, individuals must possess a *task orientation*, meaning they are motivated to complete the task and recognize the task has clearly

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defined outcomes for success and failure. Second, the task must create a *collective orientation* such that individuals find it both necessary and legitimate to make relative anticipations of reward expectations to distribute goal objects. However, recent EST research has found that status generalization processes can occur in any *evaluative setting* that creates pressures for individuals to assess expectations in a relative manner (Erickson 1998). Several RET studies take place in these settings and empirically support the main assumptions of the theory (Dilks et al., 2015; Fisek & Hysom, 2008; Hysom & Fisek, 2011; Melamed, 2011).

Extending RET: Allocations of Negative Rewards via Status Cues

Although there has been much empirical support for the processes and assumptions outlined in RET in both collective task (Fisek & Hysom, 2004; Hogue & Yoder, 2003; Wagner, 1995, 2000) and evaluative settings (Dilks et al., 2015; Fisek & Hysom, 2008; Hysom & Fisek, 2011; Melamed, 2011) we argue that in its current form RET may be too constraining for two reasons. First, the current operationalization of rewards includes only positive goal objects such as money, titles, and medals. However, several social situations involve the allocation of negative rewards or goal objects, such as the distribution of sanctions or punishments. Second, RET posits an equivalent generalization process for both diffuse and specific status characteristics resulting in the same impacts for each type of characteristic on the formation of reward expectations and the allocation of goal objects. However, there are many relational and individual-level factors that can impact the allocation of rewards. For example, Baker (1974) finds that information regarding the level of inequity between two individuals causes a third-party allocator to allocate more rewards to the disadvantaged party. Further, individual-level factors like race and ethnicity tend to have lesser impacts on sentencing allocations as compared to an offender's prior criminal record (Spohn 2009). Despite these current limitations of RET, we

argue below that such restrictions offer opportunities to extend the theory's scope.

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Recall that RET defines goal objects as any culturally recognized instances of tangible or symbolic rewards (Berger et al., 1985, 1998; Hysom & Fisek, 2011). At present, empirical work in RET has operationalized goal objects as including only positive rewards individuals *want* to receive. For instance, Melamed (2012) cross-culturally examined the effect of diffuse status characteristics, including age, education, and gender, on perceptions of deserved incomes. Similarly, vignette studies by Fisek and Hysom (2008; Hysom & Fisek 2011), asked subjects to distribute a salary pool across individuals in a fictitious work group who were differentiated by both diffuse (i.e., gender, education, experience) and specific (i.e., occupation) status characteristics. In collective-task settings, two studies by Wagner (1995, 2000) focus on the allocation of monetary payments to self and other upon completion of a group task.

By focusing solely on the allocation of positive rewards, current RET research excludes important social interactions that include the distribution of negative goal objects or those negative rewards individuals want to *avoid* (Skinner, 1953). Negative rewards include sanctions, fines, or even the assignment of unpleasant tasks (Otten, Mummendy, & Blanz, 2001). Furthermore, many social relations involve the ability to allocate both positive and negative rewards. For instance, employers control the outcomes of their employees through an ability to hire or fire, promote or demote, praise or criticize, actions that represent “a continuum of positive to negative outcomes” (Molm 1989, p. 1396). Thus, RET excludes an important part of Molm's continuum.

One large and important area of scholarly research that involves the distribution of negative rewards is the allocation of criminal punishments. Although sentencing guidelines

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require that punishments be determined by legal factors such as an offender's prior criminal record, weapon use, excessive harm to the victim, and crime type (Blumstein, Cohen, Martin, & Tonry, 1983), a plethora of criminological and sociological research has found that extra-legal factors including the race, gender, age, education and occupation of offenders and victims also influence the allocation of sentences (see Spohn 2009 for a review of sentencing research). Since these extra-legal factors are well established status characteristics, using RET to study the allocation of sentences should prove productive.

Only a few studies have specifically leveraged EST assumptions to explain the allocation of sentences. First, Unnever and Hembroff (1988) examine racial and ethnic sentencing disparities among male drug offenders. They find that consistent case-related characteristics of defendants eliminate the influence of established status characteristics, race and ethnicity, on sentencing decisions. However, when case-attributes are inconsistent, sentencing disparities in punishment occur that favor high status (whites) over low status offenders (blacks and Hispanics). Second, Dilks et al. (2015) use RET to explain how the leniency afforded high status offenders in the allocation of sentences operates indirectly through two important antecedents to sentencing decisions, evaluations of offender dangerousness and crime severity. Taken together, these studies suggest that RET can be usefully leveraged to explain the allocation of sentences as negative rewards.

The Differential Impacts of Status Characteristics on Rewards: The Role of Status Cues

A second important constraint in the current formulation of RET is the theory's assumption of equivalency between the impact of different status characteristics on the allocation of rewards. The theory assumes that *any* characteristic which differentiates individuals and activates a corresponding referential structure becomes salient in a reward situation and is linked

to the formation of reward expectations and the allocation of goal objects. This equivalency among characteristics is apparent in the graph theoretic representation of RET. As illustrated in Figure 1, a diffuse characteristic (D) and a specific characteristic (C) have equivalent path lengths. This results in each type of characteristic having an equivalent impact on the calculation of aggregated reward expectations.

One way differentiation in the impact of status characteristics may occur is through variance in the conveyance of this information. The conveyance of status information has been categorized within the expectation states program as “status cues” (Berger, et al., 1986; Fisek, et al., 2005). The theory of status cues argues that the manner in which individuals learn about another’s diffuse and specific status characteristics impacts the formation of performance expectations and rates of social influence (Berger et al., 1986; Fisek et al., 2005; Ridgeway, Berger, & Smith, 1985).

Status cues are indicators that reveal information regarding one’s status to others. During social interactions, individuals use status cues not only to identify the status of others, but also emit status cues themselves regarding their own status levels (Fisek et al., 2005). What constitutes a status cue can vary from the brand of clothing one wears to individual diction and dialect patterns. One way to categorize status cues is indicative versus expressive (Berger et al., 1986).⁶ *Indicative status cues* are those that explicitly label a person as possessing some level of a status characteristic (Fisek et al., 2005). This can be an explicit label of race or ethnic association or a visual glimpse of skin tone that implies this association. In contrast, *expressive*

⁶ Berger et al. (1986) also identify a second dimension to classify status cues. The task-category distinction in status cues concerns what status information is transmitted. *Task cues* give status information regarding “what people can do” regarding specific tasks. In contrast, *categorical cues* provide status information about “who people are.” We are concerned with the differential impact of indicative and expressive categorical status cues as these are most closely associated with the RET argument and empirical test we under take. However, we review studies that involve tests of both expressive and indicative cues along the task-categorical dimension here.

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status cues provide more indirect status information and are “given off” during interactions, generally through various verbal and non-verbal behaviors. Accented speech, word choice, gestures, or tone of voice are examples of expressive cues. Because both types of cues reveal status information about individuals, both serve as a basis for inequalities in the formation of expectations, group interactions, and individual evaluations. However, because of the difference in the way indicative versus expressive information is conveyed, namely the use of labels versus behavioral cues, their impacts on status processes may not be equivalent.

Berger et al.’s (1986) review of the literature on status cues suggests that when expressive and indicative cues provide contradictory status information, expressive cues will have a greater impact on status evaluations than indicative ones. Walker et al. (2014) supports this assertion in a study of the effects of expressive cues, operationalized as group participation, on overcoming low status indicative cues based on race labels. In mixed-race groups of women, when the participation rates of black women were increased thus conveying high status information through the expressive cue and low status information through the indicative cue, their influence over group decisions also increased. An earlier study by Rashotte and Smith-Lovin (1997) also supports the strength of expressive cues over indicative ones in situations where status information conflicts. It is interesting to note that research by Webster and Driskell (1978) tried to overcome status disadvantage in group interaction based on race by adding additional indicative status cues. They had to add two inconsistent indicative cues to overcome racial disadvantages in interactions rather than a single expressive cue as in Walker et al. (2014).

Thus far, status research has only ordered the effects of expressive versus indicative cues when the status information is in conflict. However, there is research outside of sociology that suggests expressive cues will have a greater effect than indicative cues even when the

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information is not conflicting. For example, research on the impact of physical (e.g., race, gender, age) versus non-physical cues (e.g., facial expressions, body language) finds that behaviors have a larger impact on the perceptions and judgements of others. According to attribution research by Heider (1958), observed behaviors seem to “engulf” one’s field of perception, also engulfing and superseding those stereotypes related to physical traits that are important for first impressions. Experimental research has shown that although cues indicating group membership are an important source of personality impressions, this importance rapidly decreases when behavioral information is available (Krueger & Rothbart, 1988). Swami and Furnham (2012) found that in making assessments of another’s level of intelligence, physical cues such as skin tone, body weight and shape that imply another’s race or gender contribute less to intelligence judgements than non-physical cues including body language and emotionality. Based on this literature outside EST, we would expect expressive status cues to be more impactful on the formation of expectations. Thus, we argue that expressive cues will impact reward allocations as well.

The application of status cues to RET provides an opportunity to challenge the theoretical assumption of characteristic equivalency on reward allocations. This application, in conjunction with the rarely explored setting of allocating negative rewards, creates an open area of research that has the potential to extend the scope of RET while continuing to refine our knowledge of status processes in allocative settings. Thus, the purpose of this paper is to provide a preliminary test of the effects of status information presented using expressive versus indicative status cues in a negative reward situation. Furthermore, while status cue research examines the impact of expressive versus indicative cues only in situations of conflicting status information, our test allows for a more direct comparison and adds to our understanding of the impacts of status cues

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when they are the only sources of information in a situation. In constructing and testing our application we integrate two previously disparate branches of EST research (RET and status cues), to further our understanding of a novel and understudied area of reward research.

Testing the Relative Impact of Expressive versus Indicative Status Cues

To test whether the impact of status information conveyed through an expressive status cue is different than status information conveyed via an indicative status cue, we analyze a subset of previously published experimental data reported in Dilks et al. (2015). That study investigates the influence of status processes in an evaluative setting involving the allocation of a negative reward. Specifically, subjects were asked to read a vignette describing a criminal case, adapted from Robinson, Smith-Lovin, Tsoudis (1994) and Tsoudis and Smith-Lovin (1998), where a drunk driver hits and causes injuries that confine a victim to a wheelchair.⁷ The vignette includes court testimonies where the status of the offender and victim are varied. Subjects are asked to allocate a negative reward, operationalized as a recommended sentence, in addition to evaluating the perpetrator, victim, and crime.

Status differences between the offender and victim were manipulated on three dimensions. First, the race and education level of offenders and victims are either high status (white and college educated) or low status (African-American and high school educated). Both educational attainment (Markovsky, Berger and Smith 1984; Zelditch, Lauderdale and Stublarec 1980) and race (Cohen and Roper 1972; Webster and Driskell 1978) have been empirically validated as diffuse characteristics (hereafter D). Status was also manipulated using appropriate emotional displays, or lack thereof. Studies of emotions and status have established that expressions such as sadness or happiness affects status processes and the resulting hierarchy

⁷ See Dilks et al. (2015, p. 249-250 and 254-255) for a justification that this setting meets the scope conditions of a reward situation in an evaluative setting under RET.

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and thus should be combined with other status elements (Houser & Lovaglia, 2002; Lovaglia & Houser, 1996). Dilks et al. (2015) argue the link between emotions and status in their negative reward setting is through Driskell's (1982) concept of a valued personal characteristic.

A *valued personal characteristic* (hereafter VC) has differentially evaluated states, where possessing the highly-valued state is associated with high status. VCs are characteristics assumed to be controllable by an individual, for example displaying empathy or trustworthiness, where the highly valued state is determined by the social norms that govern a situation (Driskell 1982; Webster and Hysom 1998). Thus, an individual adhering to situational norms will occupy the preferred state of a VC and is associated with higher levels of morality, esteem, or desirability and seen as more competent (or deserve more rewards) than those occupying the less desirable state (Driskell 1982). VCs have been shown to operate as diffuse characteristics when individuals are equated on all other characteristics and thus, like diffuse characteristics, should activate associated referential structures in a reward situation (Driskell 1982).

The Dilks et al. (2015) research focuses on how the status of the offender relative to the victim influences recommended sentencing and two well established antecedents, evaluations of an offender's "dangerousness" and the severity of the crime. Results indicate that status differences strongly influence the antecedents to sentencing decisions but not those decisions directly. Although the paper extends our knowledge regarding the influence of status processes on the allocation of negative rewards we believe there are further insights that can be gleaned from the study regarding the impact of how status information is presented.

In the study, status information is conveyed in a varying manner where the Ds race and education are presented in indicative form whereas the VC is presented using expressive cues. This was done by varying emotional displays of the victim and offender through the embedding

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of non-verbal expressive cues in the form of behaviors during their testimonies. In these vignettes, the guilt of the offender is not in question and thus, situational norms dictate that the appropriate emotional display for offenders is to show remorse for their crimes. Similarly, situational norms dictate that victims should be distraught or sad in response to their victimization. The description of a sad victim or remorseful offender (high status) is accomplished using the expressive status cues “unhappy,” “eyes tearing,” “hold their hands on their lap and intertwine their fingers,” “look down at the floor,” “weep,” and “crying.” Conversely, the description of an emotionless victim or offender (low status) was presented in expressive form describing the offender and victim as “relaxed,” “unconcerned,” “lean back in their chair,” and “stare straight head” while testifying.

The original experiment in Dilks et al. (2015) generated 16 conditions of which we utilize 12. By selecting and comparing specific conditions this data provides us with the opportunity to test the relative impacts of differences in the conveyance of status information on negative reward allocations when status cue information is not conflicting. We focus on the conditions where 1) the offenders possessed a status (dis)advantage based on a valued personal characteristic only, denoted (VC^+) VC^+ , and were equated on the diffuse characteristics; 2) the offenders possessed a status (dis)advantage based on diffuse characteristics only, denoted (D^-) D^- , and were equated on the valued personal characteristic; and 3) the control conditions where the offender and victim were equated on all characteristics.

The set of conditions where only VC and only D status information differentiate individuals are ideal for testing the relative impact of expressive versus indicative status cues. As discussed above, when individuals are equated on all status characteristics except for a VC, it will operate analogous to a diffuse status characteristic activating an associated categorical

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referential structure that impacts the allocation of goal objects. Thus, a VC is theoretically assumed to have the same impact on the status generalization process as a D. Since the status information associated with the VC and D is conveyed through expressive versus indicative status cues, respectively, a direct comparison of their effects on the allocation of goal objects - in this experiment the allocation of a sentence – is possible. Any differences in their impact can only be attributed to how the status information was conveyed.

Our first objective is to establish whether expressive vs. indicative status cues have a differential impact on the allocation of negative rewards. Thus, we compare the VC and D only conditions to the control conditions to determine the impact of status (dis)advantage derived from each characteristic. We then test for differences between the impacts created by the expressive VC and indicative D. This allows us to determine the relative impact of different status characteristics on the allocation of a negative reward.

Dependent Variables

As in Dilks et al. (2015) our primary dependent variable, negative reward, is operationalized through recommended sentence. *Recommended sentence* was measured by the open-ended question, “What sentence would you recommend?”⁸ We also empirically examine the impact of status information conveyance on two well established antecedents of sentencing, offender dangerousness and offense seriousness (Blumstein, et al., 1983). To quantify these variables several survey items were created and then combined to create overall measures of each construct using a series of nine-point semantic-differential scales.⁹

⁸ Due to the open-ended nature in which we asked for sentencing recommendations the item was distributed non-normally. Therefore, we used the natural logarithm of the item and all results reported related to sentencing are based on this transformed variable.

⁹ For specifics on the measurement items used and the method to aggregate them see the discussion in Dilks et al. (2015, p. 254).

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To evaluate the relative impact of status cues we create a set of difference variables for each of our primary dependent variables for the conditions of interest. First, we obtain the mean of our dependent variables from the control conditions. We then construct difference variables by subtracting the associated mean derived from the control conditions from a subject's recommended sentence, evaluation of offender dangerousness, and offense severity. In sum this creates four difference variables for each dependent variable, denoted ΔVC^+ (ΔVC^-) when the offender is high (low) status based on the valued personal characteristic only, or denoted ΔD^+ (ΔD^-) when the offender is high (low) status based on the diffuse characteristics only. The means and standard deviations of these difference variables are used for the analysis below.

Results

For each dependent variable, Table 1 provides the mean and standard deviation for each difference variable for the conditions of interest, status advantage or disadvantage based on the VC or D only. The table also provides a test statistic and resulting *p*-value for the test that expressive and indicative status information has equivalent effects on the dependent variables. The column “*t* statistic” reports the two-sample *t*-test of means. Note that this table lists the comparisons of a single VC conveyed through expressive cues to two Ds presented in indicative form.¹⁰

For example, the first column under the dependent variable Recommended Sentence (Negative Reward), ΔVC^+ , reports the average difference between the subject's recommended sentence relative to the average recommendation in the control conditions for the condition where the offender is high status relative to the victim based on the VC only (equated on the Ds).

¹⁰ An alternative approach to quantifying differences in these variables would have been to evaluate their associated effect sizes using Cohen's *d* to determine, if in this case, the two indicative Ds had an effect size at least twice that of the expressive VC. In our case the pattern of results are so strong it renders an effect size comparison unnecessary.

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Similarly, the value under ΔD^+ represents the average difference between the subject's recommended sentence relative to the average recommendation in the control conditions for the condition where the offender is high status relative to the victim based on Ds only (equated on the VC).

[Table 1 about here]

The results reported in Table 1 are consistent with the conclusion that an offender's relative status advantage over their victim impacts the sentencing decision and its antecedents. First, notice that when the offender is high status relative to the victim, whether based on the VC or the Ds, all difference variables are negative indicating that possessing high status reduces the sentence recommended as well as evaluations of offender dangerousness and offense severity relative to the control conditions. Conversely, low status offenders, whether based on the VC or the Ds, are allocated longer recommended sentences in addition to an increase in their evaluations of offender dangerousness and offense severity.

More importantly, the results strongly support the conclusion that status information conveyed via expressive status cues more significantly influences the allocation of rewards, and, in our setting, important antecedents of that allocative decision. For all but one comparison, the effect of status information conveyed through an expressive VC has a much stronger and statistically significant impact on our dependent variables. That is, when the offender's high (low) status is derived from the expressive VC it decreases (increases) recommended sentence, evaluations of offender dangerousness, and offense severity more than cases where offender's high (low) status is derived from indicative Ds. The one exception is the comparison of the reduction in offense severity when high status is derived from the VC relative to the Ds. In that case, we find the relative impact of indicative Ds is greater than status information conveyed

through the expressive VC.

Despite this exception, our results strongly suggest implications for RET research. First, different status characteristics can impact the allocation of rewards differently. Second, a potential source of differential impact arises from how status information is conveyed. We show that a single expressive VC has a greater effect on reward allocations than two indicative Ds. These results suggest that the RET model which assumes equivalent impact of characteristics must be adjusted to account for the differential impact of status characteristics arising from differences in how status information is presented.

A Modified RET Model Using Status Cues and Empirical Test

A Cue Gestalt Approach to Status Information Conveyance in RET

Our empirical analyses show that a single status characteristic conveyed by an expressive status cue had a larger impact on evaluations of offender dangerousness, offense seriousness, and criminal sentencing than a characteristic conveyed via an indicative cue. These findings are consistent with the established body of research on status cues that find variance in the conveyance of status information can differentially impact task outcomes. Our analyses provide the first test that status cue differences are also relevant to the allocation of goal objects in an RET framework. Based on these results, we propose a modification of the standard RET graph theoretic model to allow for the differential impact of expressive versus indicative status cues on reward distributions. Our proposed alteration builds on the literature in status cues, specifically the graph theoretic work by Fisek et al. (2005) regarding weak versus strong cue gestalts.

In general, *cue gestalts* are clusters or sets of status cues that provide status information. A *strong cue gestalt* is a set of status cues that clearly indicate that the actor displaying or emitting the cues actually does the possess the relevant status information (Fisek et al. 2005) . In

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contrast, a set of *weak cue gestalts* suggests that an actor can only be expected to possess the relevant status elements. Thus, weak cue gestalts are accompanied by feelings or doubt as to whether an actor actually does possess the levels of status their status cues seem to imply while strong gestalt cues are absent of any doubt and come with a high level of certainty about one's status level.

To account for these differences in the certainty of status information via strong and weak cue gestalts, Fisek et al. (2005) introduce a new element into the graph theoretic representation of the status generalization process. They call the element a “weak categorical cue gestalt,” denoted $\delta \pm$. The sign of the element denotes the evaluation of the state of the status characteristic the weak cue gestalt indicates, either positive (high status state) or negative (low status state). Since longer paths in the graph theoretic model contribute less to the calculation of aggregated expectations, adding $\delta \pm$ to a pathway connecting a status characteristic to an outcome state signifies this characteristic's lesser impact on the formation of expectations compared to other salient characteristics.

Based on our results, we argue that expressive status cues represent strong cue gestalts in reward settings while indicative status cues represent weak cue gestalts. Our data showed that status information inferred from an offender's display of emotion offered a stronger sense of “who they are” and “what they deserve” than did their diffuse characteristic labels. In other words, it appeared that subjects in the experiment felt more certain about the appropriate distribution of rewards when an offender showed remorse, then when an offender simply occupied the high status states of race (white) and level of education (college graduate).

We incorporate these insights into the graph theoretic representation of RET using Fisek et al.'s (2005) weak categorical cue gestalt element to differentiate between status information

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conveyed via expressive and indicative status cues in a reward situation. Figure 2 re-graphs our original example in Figure 1 using this new element. Suppose that p and o are still differentiated on two salient status characteristics D and C. However, in this augmented model assume information regarding each actors state of C is conveyed via expressive status cues while status information for states of D are presented as indicative status cues. Based on our findings, the status information inferred from the expressive C should have a stronger impact on reward expectations and the allocation of goals objects than that learned from the indicative D. Thus, we add the element δ to the paths connecting states of D to GO states to lengthen each path and thus lessen the impact of D relative to C in the calculation of aggregated reward expectations and subsequent determinations of goal object allocations. Note, this model is consistent with and can account for previous findings that suggest expressive cues have a greater impact than indicative ones when their status information is conflicting.

[Figure 2 about here]

Figure 2 is only meant to serve as a preliminary modification of the RET model based on the findings of this first test of the impacts of expressive versus indicative cues on allocative behaviors. Furthermore, our model offers only one way to differentiate the impact of status characteristics in the RET framework and not meant to be inclusive or exhaustive of all methods for differentiating status information. However, it is important to mention that our use of the weak categorical cue gestalt element preserves the original RET generalization process from salient status characteristic, to the activation of referential structure, and finally to goal object allocation. By adding the element δ , we avoid deleting or altering important theoretical elements, such as referential structures, in the model. Thus, our approach could be formally added to the core assumptions of RET through a simple auxiliary assumption rather than a re-

construction of the theory.

Also, note that the use of the weak categorical cue gestalt element in both actor's paths through the indicative diffuse status cue differs from the model postulated by Fisek et al. (2005). In their use of the element, only one actor has their path from the weak status cue to the outcome state lengthened by δ (see Figure 2, p. 87). They argue that categorical cues are only important as indicators of the another's status and not one's own status since individuals are certain of their own status information but may doubt another's status information if displayed using a weak cue gestalt (Fisek et al., 2005, p. 87-88). Given the findings from our research, we believe it necessary to use the element δ to lengthen any indicative status cue for all actors to clearly delineate the lesser impact of these cues relative to expressive ones. Thus, our use of the weak categorical cue gestalt element is not meant to reflect uncertainty regarding status information but rather the lack of strength related to the conveyance of that information.

Furthermore, graphing the lesser impact of indicative relative to expressive cues in this way, allows our model to be easily applied to an evaluative setting. For example, suppose a third actor, n , must determine the reward allocations to p and o . As evidenced in our experimental data, in this type of situation n would use the indicative and expressive status cue information for both actors in determining rewards but would weigh each actor's state of the expressive cue C more heavily in making these decisions. Thus, lengthening all paths related to salient indicative cue information is necessary.

An Empirical Comparison of the Classic vs. Modified Cue Gestalt RET Models

The differences between the modified cue gestalt and classic RET model have implications for the calculation of expectation advantage. For example, under the classic model expectation (dis)advantage derived from the two D s in the Dilks et al. (2015) study would be

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greater than the single VC. In contrast, under the modified cue gestalt model this pattern is reversed. To test whether the classic model of RET versus our modified cue gestalt alternative better predicts the allocation of negative rewards in the form of criminal sentencing, we estimate a series of regressions using the conditions where offender status (dis)advantage is derived solely from an expressive VC versus indicative Ds. We regress recommended sentence on offender expectation advantage calculated using the classic model versus our cue gestalt model, both without and with control variables.¹¹ We use the Bayesian Information Criterion (BIC) to empirically assess any differences in model fit and the *J*-test and Cox-Pesaran tests to determine model selection.

[Table 2 about here]

Table 2 reports the results of our regressions and provides support for our cue gestalt model. Consistent with Dilks, et al. (2015) Model 1 shows offender expectation advantage is not significant in predicting recommended sentence when expectation advantage is calculated under the classic RET model. In stark contrast, Model 2 shows expectation advantage when calculated using our cue gestalt model is strongly significant in predicting recommended sentence. Further, notice the BIC decreases 50 points. As Raftery (1995) suggests, any decrease in BIC greater than 10 points is a very strong indication that Model 2 better fits the data.

This pattern of results remains in the presence of two important antecedents to sentencing, evaluations of offender dangerousness and offense severity, and several control variables including subject gender and race as well as a measure of how serious a crime subjects consider drunk driving to be. Again Model 3 shows that the classic RET calculation of

¹¹ These calculations are based on the values by Balkwell (1991).

expectation advantage is insignificant in predicting recommended sentence while in Model 4 expectation advantage calculated using the cue gestalt model is significant in presence of the antecedents and controls. Further, notice that the BIC decreases 25 points in Model 4 relative to Model 3 indicating the superior fit of the cue gestalt model.

As a final comparison of the classic RET and cue gestalt models we conducted non-nested hypothesis tests to determine model selection. Non-nested hypothesis tests select between two regression models where one model cannot be written as a special case of the other. The test helps determine which model has superior explanatory power.¹² We conducted a *J*-test (Davidson and Mackinnon 1981) as well as a Cox-Pesaran test (Cox 1961; Pesaran 1974).¹³ The *J*-test first obtains fitted values from the classic RET model (Model 3). These fitted values are then added to the list of regressors in the cue gestalt regression model (Model 4). A *t*-test on the coefficient of the fitted values is conducted. A significant *t*-value is evidence against the cue gestalt model and in favor of the classic RET model. This procedure is then repeated where we begin with the cue gestalt model and obtain its fitted values.

In contrast, the Cox-Pesaran test uses the fitted values from one model and regresses them on the independent variables in the second model. If the regressors in the second model are statistically significant this is evidence in favor of the second model as opposed to first. Like the *J*-test the procedure is completed twice. Therefore, to compare both models the fitted values of the classic RET model are regressed on the cue gestalt model and vice versa.

The *J*-test reveals when the fitted values from the classical RET model are used as an independent variable in the cue gestalt regression (Model 4) the variable is insignificant ($t =$

¹² We thank an anonymous reviewer for suggesting the use of these tests to further clarify our results.

¹³ The *J*-test is not to be confused with the *P*-test which is the equivalent test for nonlinear model selection (McAleer 1995:160).

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1.44, $p = .15$). However, when the fitted values from the cue gestalt model are added as an independent variable to the classic RET regression (Model 3) this variable is statistically significant ($t = 13.59, p < .01$). Using the Cox-Pesaran test when the fitted values of the RET model are regressed on the variables in the cue gestalt model the regressors are statistically significant ($N = 5.14, p < .01$). In contrast when the fitted values of the cue gestalt model are regressed on the independent variables in the classic RET model the test is not significant ($N = 1.07, p = .14$). Thus, the results of both non-nested hypothesis tests provide strong evidence that the cue gestalt model is superior in explanatory power relative to the classic RET model.

The statistical strength of our cue gestalt model can be easily explained using the results of Table 1. Those results strongly indicate that a single expressive VC significantly affects reward allocation more than two indicative Ds. However, in calculating expectation advantage using the classic RET model, the two Ds would create a larger expectation advantage than a single VC. Thus, in our regressions under the classic model when expectation advantage is increasing, sentence is decreasing but not as much as when the offender's status is derived from an expressive VC. This leads to a poorer fitting model, Models 1 and 3, and in our case a lack of statistical significance for expectation advantage as an explanatory variable.

In contrast, under our cue gestalt model the single expressive VC has a greater expectation advantage than two indicative Ds. As evidenced by Figure 2, and discussed above, the VC in the cue gestalt model would have a shorter path length which reverses the relationship discussed above. Now, as expectation advantage increases, negative reward allocation decreases and this relationship is statistically significant. This relationship holds in the presence of control variables and as the fit statistics of Model 2 versus Model 1 and Model 4 versus Model 3 indicate, model fit is significantly improved using our cue gestalt RET model of expectation

advantage. Further, our tests of model selection provide strong evidence in support of the cue gestalt model relative to the classic RET model.

Discussion

The purpose of this research is to determine if differences in the conveyance of status information has consequences for the distribution of rewards in evaluative settings. Although Reward Expectations Theory is agnostic on this issue, research outside of sociology and within the status cues branch of the expectation states paradigm would suggest otherwise. This research also sought to extend RET and status cues insights to situations involving the allocation of negative rewards. With the exception of Dilks et al. (2015), all RET research only examines allocative behaviors involving positive rewards, notably money. Our primary assertion is that status information conveyed via expressive status cues has a larger impact on the distribution of negative rewards than that conveyed through indicative cues.

We use a subset of previously published experimental data from Dilks et al. (2015) in which subjects were asked to read court testimony from a case of drunk driving where the offender's actions left the victim confined to a wheelchair. Subjects were asked to recommend a sentence for the offender, an instance of negative reward allocation. Participants also answered a series of questions evaluating the criminal (offender dangerousness) and the severity of their offense, two important antecedents to sentencing decisions. The experimental design varied the status of both the offender and victim using two diffuse status characteristics - race and education – conveyed indicatively and a single valued personal characteristic - appropriate emotional display - via expressive status cues. We specifically focus on the subset of experimental conditions where offender and victim are differentiated by only an expressive VC or two indicative Ds. Since each characteristic was conveyed using a different type of status cue

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we can make a direct comparison between allocated sentences when offenders possess the valued (non-valued) state of the expressive VC versus the valued (non-valued) state of the indicative Ds.

Our first set of analyses reveal when the offender's status advantage (disadvantage) relative to the victim is the result of an expressive VC, the offender receives a more lenient (harsher) sentence or negative reward than when this advantage is based on indicative Ds. In addition, the two antecedents of sentencing were similarly affected by conveyance differences. Specifically, high (low) status offenders in the expressive VC conditions were viewed as less (more) criminal and their crime as less (more) severe than those in the high (low) indicative D conditions. Since both VC and D are assumed to operate as diffuse characteristics in the determination of offender expectation advantage, the difference in their impact can be attributed to how the status information was presented. Thus, we find status information conveyed through expressive status cues are more influential on subjects' negative reward allocations and overall evaluations than information conveyed via indicative cues.

Using the results of this first analysis along with key insights from the status cue gestalt literature (Fisek et al., 2005), we develop a modified cue gestalt RET graph theoretic model to account for the differential impacts variance in conveyance of status information can have. This model provides an alternative method for calculating aggregate reward expectations when indicative and expressive status cues are both salient in a reward situation. A series of regression analyses confirm that our modified cue gestalt model, which assumes expressive status cues will more heavily impact the calculation of offender expectation advantage as compared to indicative cues, fit the experimental data better than the classic RET model which does not differentiate between status information based on presentation. In addition, while Dilks et al. (2015) found that offender expectation advantage only indirectly affected the allocation of sentencing via its

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antecedents, the results for our modified cue gestalt model show a significant and direct effect of expectation advantage on recommended sentence. Thus, incorporating the conveyance of status information into the RET model strengthened its ability to explain the role of status characteristics in the allocation of negative rewards, specifically criminal punishment.

These results have several implications for various branches of the EST program. Most notably, we extend RET research in two ways. First, the use of a negative reward allocation setting (criminal sentencing) is unique. Although the distribution of negative rewards is involved in many social and interpersonal situations, it has been largely ignored by RET researchers. Our work, along with that of Dilks et al. (2015), illustrate the explanatory power of RET applied to these kinds of allocative behaviors in addition to the positive reward distributions of monetary resources and offer RET researchers an entirely new type of reward situation to consider. Second, we illustrate that status information can have differential impacts within a reward allocation setting. This finding stands in contrast to traditional assumptions in RET which model all status characteristics that activate a referential structure as contributing equally to the final allocation of goals objects. Our modified cue gestalt model provides one mechanism for incorporating these differential effects. However, the conclusions we draw regarding the impact of status information conveyance need to be replicated in more traditional RET evaluative settings where rewards are positive to validate our results. We cannot assert with certainty that the impact of status information conveyance is the same when positive rewards are allocated.

Our findings also have important implications for theory and research on status cues. To our knowledge, this study is the first to examine indicative and expressive status cues in the RET framework. To date, research has only examined these effects in a related branch of the EST program, Status Characteristics Theory. Furthermore, while previous status cue research only

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examined the impact of expressive versus indicative cues when the status information each provided was in conflict our results compare the impacts of these two different types of cues directly. We find that expressive status cues can impact the formation of expectations even when not in conflict with the indicative ones. Thus, we extend existing findings that status information conveyed through expressive rather than indicative forms is more influential.

Our suggested modification of the RET graph theoretic model extends the weak and strong cue gestalts model proposed by Fisek et al. (2005). We incorporate their weak categorical cue gestalt element (δ_{\pm}) as a method to differentiate the strength of status information conveyed expressively relative to indicatively. However, we argue for a modified inclusion of δ_{\pm} from that originally proposed by Fisek et al. (2005) wherein the strength of status information conveyed indicatively for both actors in a reward situation is lessened. Recall that Fisek et al. (2005) originally incorporated δ_{\pm} in an imbalanced manner such that status information regarding one's self could never be influenced by its method of presentation, only the display of status cues from another could be altered by this element. Thus, we not only modified RET models by incorporating this new element but also extended Fisek et al.'s (2005) conception of it.

The original paper by Dilks et al. (2015) is one of the only papers to utilize Driskell's (1982) conception of a valued personal characteristic as a source of status information. Not only did that work advance our understanding of how VCs affect status generalization processes, the current research also provides new insights into the operation of VCs. In Driskell's original research he found that although a VC (empathy) significantly affected the formation of performance expectations it did not affect levels of social influence in collective task settings.

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Specifically, those equated to a partner on the VC were just as likely to behaviorally conform to their partner's influence in a group task as those paired with individuals who occupied a lower status state of the VC relative to themselves. Driskell had hypothesized that individuals occupying the high status state of the VC would exert more influence over their partners' behaviors.

Given our findings of a strong VC effect on expectations and allocative behaviors, we speculate that one reason for Driskell's lack of results may be due to his use of indicative rather than expressive cues to convey VC information to participants. To manipulate VC levels, Driskell merely informed experimental subjects that their "partners" (not real persons but computer generated and controlled confederates) scored in the low range of a fictitious empathy inventory. Thus, partners were merely labeled as low in empathy, an indicative status cue. At no point during the experiment did either the real or computer partner "give off" expressive cues regarding their level of empathy. Thus, when taken together with our findings it may be the case that VCs only influence the status generalization process when they are conveyed in expressive rather than indicative form. Determining the plausibility of this distinction in VC information conveyance would be a fruitful avenue for future research.

Our research combines two disparate branches of the EST program – RET and status cues – to re-analyze previously published experimental data to expand our knowledge regarding the importance of how status information is conveyed. We believe this is the first direct test of the impact of expressive versus indicative status cues not only in a general reward allocation setting but a negative reward situation in particular. Our strong results confirm the importance of information presentation in social science, particularly within the expectation states program. The application of concepts from the status cues literature creates a setting in which the

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differential impact of status characteristics on negative reward allocation can occur depending on the conveyance of status information. This approach opens many possible avenues for future research regarding the impact of status information not only in both positive and negative evaluative reward situations but potentially in collectively-oriented task settings as well. Our augmented RET model provides a starting point to capture the role of information conveyance that could expand our knowledge of status organizing processes when status information can be communicated in different ways. Given the importance of status for many forms of group decision making that are of interest to a myriad of disciplines including political science, economics, psychology, sociology, and management, the role of status information conveyance should draw interest from a wide range of scholars. Furthermore, as demonstrated by our successful application of a cue gestalt RET approach to sentencing allocations, we believe this model can be more broadly applied to the allocation of negative resources in general.

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Figures

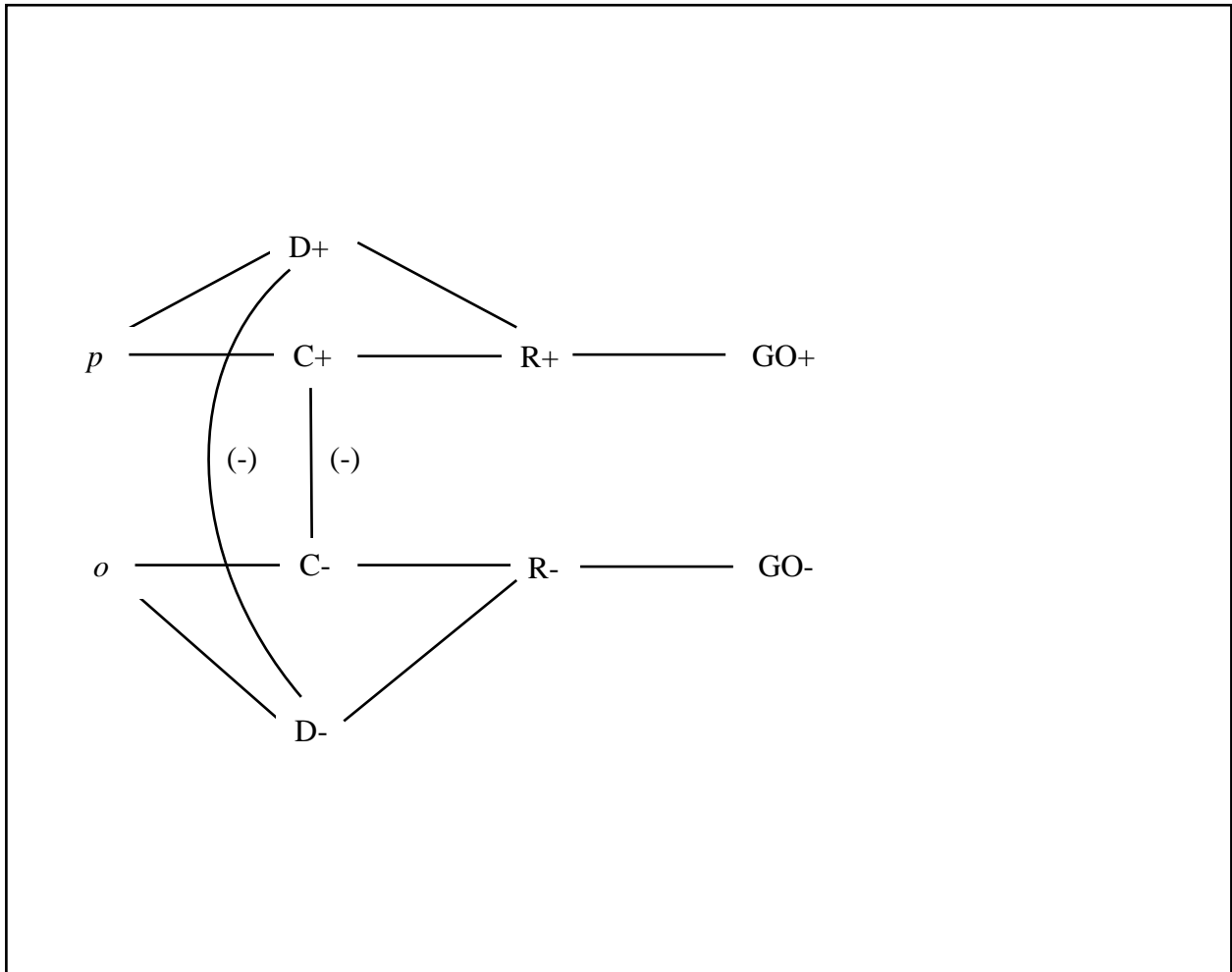


Figure 1. Graph theoretic representation of two actors differentiated on a salient diffuse (D) and specific (C) status characteristic in an RET setting.

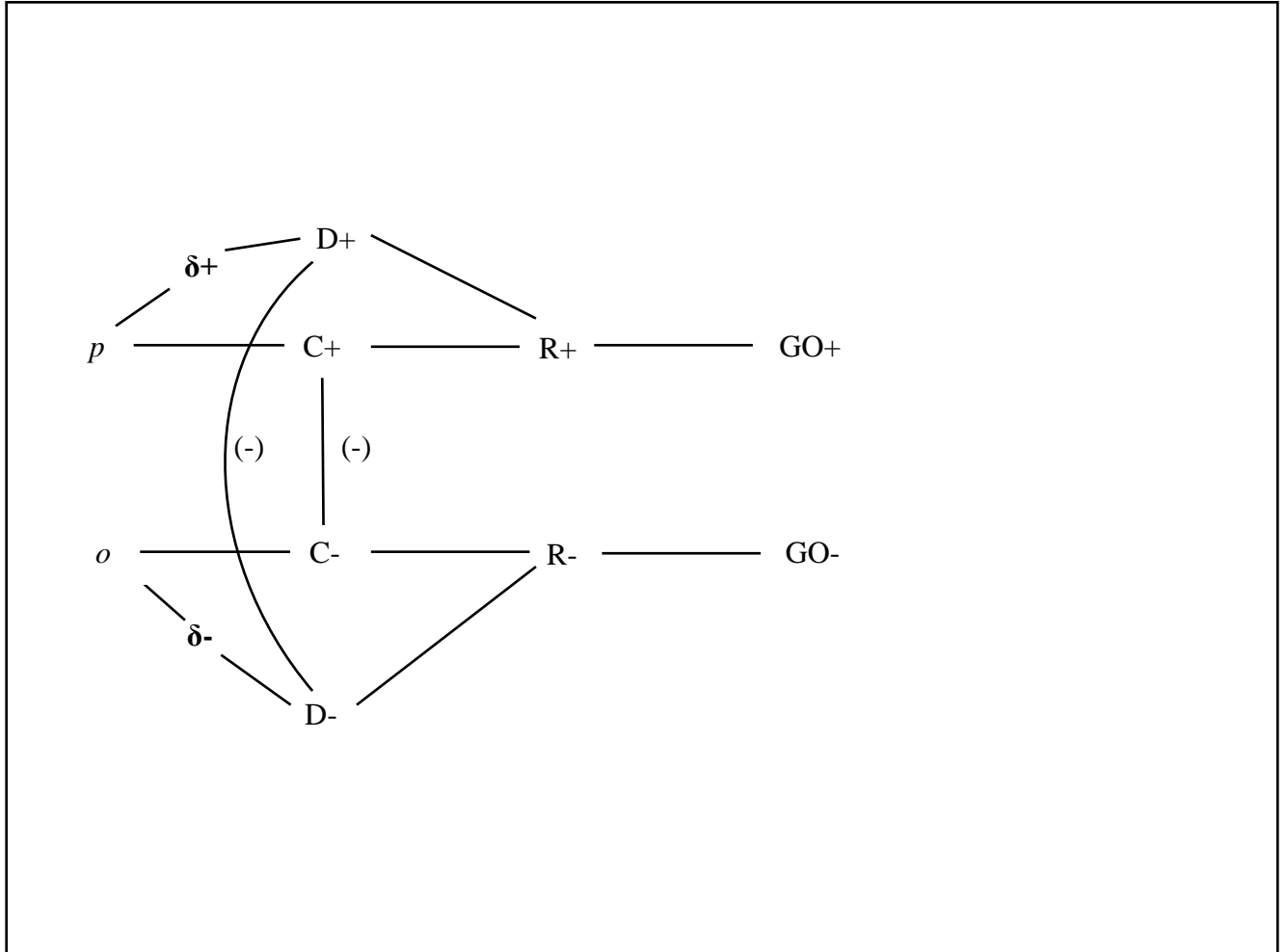


Figure 2. Modified graph theoretic representation of two actors differentiated on a salient diffuse characteristic (D) conveyed via an indicative status cue and specific (C) characteristic conveyed via an expressive status cue in an RET setting.

Tables

Table 1. Relative Impact of Valued Personal to Diffuse Status Characteristics on the allocation of Negative Reward and its antecedents

Recommended Sentence (Negative Reward)			Offense Severity			Offender Dangerousness		
ΔVC^+	ΔD^+	<i>t statistic</i>	ΔVC^+	ΔD^+	<i>t statistic</i>	ΔVC^+	ΔD^+	<i>t statistic</i>
-0.17	-0.09	9.11	-0.02	-0.04	1.90	-0.68	-0.03	13.05
(0.06)	(0.04)	<i>p < .01</i>	(0.03)	(0.08)	<i>p = .06</i>	(0.41)	(0.02)	<i>p < .01</i>
<i>n=66</i>	<i>n=68</i>		<i>n=66</i>	<i>n=68</i>		<i>n=66</i>	<i>n=68</i>	
ΔVC^-	ΔD^-	<i>t statistic</i>	ΔVC^-	ΔD^-	<i>t statistic</i>	ΔVC^-	ΔD^-	<i>t statistic</i>
0.17	0.13	2.82	0.51	0.18	11.24	0.40	0.04	12.70
(0.10)	(0.06)	<i>p < .01</i>	(0.23)	(0.07)	<i>p < .01</i>	(0.23)	(0.03)	<i>p < .01</i>
<i>n=69</i>	<i>n=67</i>		<i>n=69</i>	<i>n=67</i>		<i>n=69</i>	<i>n=67</i>	

Notes: Means listed first for each change variable while standard deviations are noted in parentheses. All reported p-values from two independent samples t-tests are two tailed. The mean derived from the control conditions involved n=136 subjects.

Table 2. Impact of Expectation Advantage under Classical and Modified Cue Gestalt RET Models on Negative Rewards

	Model 1	Model 2	Model 3	Model 4
Independent Variables:				
Offender Expectation Advantage (<i>e</i>)				
Classical Model	0.03 (0.04)	-----	0.02 (0.04)	-----
Modified Cue Gestalt Model	-----	-0.09*** (0.02)	-----	-0.07** (0.03)
Offender Dangerousness	-----	-----	0.05*** (0.01)	0.06*** (0.01)
Offense Severity	-----	-----	0.04** (0.02)	0.04** (0.02)
Control variables:				
White	-----	-----	-0.009 (0.04)	-0.01 (0.05)
Female	-----	-----	-0.03 (0.04)	-0.03 (0.04)
Seriousness	-----	-----	0.05*** (0.02)	0.08*** (0.02)
Fit Statistics:				
Bayesian Information Criterion (BIC)	391.30	340.88	332.91	307.54

Notes: Robust standard errors in parentheses. $N = 262$ for all models.

* $p < .10$; ** $p < .05$; *** $p < .01$ (one-tailed tests)