Expectancy Confirmation as a Moderator of Subjective Attitudinal Ambivalence

THESIS

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Abstract

People tend to report feeling ambivalent in their attitudes toward objects that are associated with both positive and negative reactions. Across three studies, I investigated if people who have both positive and negative reactions to a novel target would feel less ambivalent about their attitudes if they simply expected to process valence-inconsistent information, compared to if they expected consistency or had no explicit expectations. In each study, people received either mixed or consistent behavioral information about a target individual as well as a summary. The summary either was presented before the behavioral information where it could foster an expectation or after where it could not. Study 1 replicated past work on ambivalence when the summary followed the behavioral information but established a new finding when it came first, namely that people who expected valence-inconsistent (versus consistent and negative) information reported less subjective (but not objective) attitudinal ambivalence than people who did not expect valence-inconsistent information. Study 2 replicated and expanded on these findings in comparison to other types of expectations (e.g., no expectations, undermined expectations), and Study 3 generalized these findings in comparison to consistent and positive expectations. Finally, the latter two studies provided mediational evidence that the extent to which people felt that their expectations had been confirmed (versus disconfirmed) accounted for the decreased feelings of ambivalence.
Acknowledgments

I am indebted to my mentors for the development of this research. Be they advisors, colleagues, or family and friends outside the purview of social psychology, these people in my life have helped me to define my interests, and they have an enduring influence on my work. Most of all, I am grateful for the support of three individuals—Rich Petty, Pablo Briñol, and Vanessa Sawicki—who helped me to conceptualize and execute this research.
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Fields of Study

Major Field: Psychology
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Introduction

The world is full of people and ideas that are complicated, many of which possess seemingly contradictory qualities. For example, pursuing a course of medical treatment requires understanding its potential life-saving potential as well as its negative side effects. Shopping for a car often prompts people to accept some negative qualities in favor of some package of attractive features. Deciding whether or not to marry one’s partner can entail a cost-benefit analysis of the partner’s traits that are endearing versus those that are infuriating. In each of these scenarios, a person must form an evaluation of a choice, an object, or an individual that is associated with both positive and negative information. Because humans are motivated to understand their world for a number of reasons, they are compelled to evaluate and form attitudes about the people, objects, and ideas that populate the world. But, there are countless objects of evaluation that humans perceive as being both risky and beneficial, or simply both good and bad. The psychological literature is replete with evidence that holding an ambivalent attitude is unpleasant and generally undesired (van Harreveld, van der Pligt, & De Liver, 2009). The focus of this thesis is on one factor that might reduce the experience of attitudinal ambivalence to valence-inconsistent objects.

As Allport (1935) famously stated, the concept of attitudes has been and continues to be foundational to the study of social psychology, as attitudes are
informative for people in pursuing goals, making decisions, and deciding how to behave (Petty, Briñol, & DeMarree, 2007). Attitudes are defined as summary evaluations of objects stored in memory (Fazio, 1995; Petty & Wegener, 1998), which people form when they associate an object with some degree of favor or disfavor. As the word “or” in “favor or disfavor” indicates, attitudes have long been measured along a bipolar continuum ranging from negative to positive (Eagly & Chaiken, 1993; Osgood, Suci, & Tannenbaum, 1957; Petty, Priester, & Wegener, 1994; Thurstone, 1928), and this approach is consistent with how researchers and lay people alike think about their relative preferences versus their distastes (Fazio, 1986; Thurstone & Chave, 1929). Thus, it is not surprising that the bipolar continuum can capture much of the variance in individuals’ attitudes toward a number of objects with relative accuracy, as shown by nearly a century of research on the formation and change of attitudes (Briñol & Petty, 2012).

As demonstrated by research in a variety of related domains, however, people are capable of associating people, objects, and ideas with thoughts and feelings that are dissonant from one another (e.g., Abelson, Kinder, Peters, & Fiske, 1982; Cacioppo & Berntson, 1994; Festinger, 1957). In the case of an objectively valence-inconsistent attitude object—that is, an idea, person or thing that is associated with both positive and negative qualities—the bipolar measure cannot distinguish attitudes that register neither negative or positive reactions from attitudes that activate both negative and positive reactions to a relatively equal extent (Breckler, 1994; Cacioppo & Berntson, 1994; Hass, Katz, Rizzo, Bailey, & Eisenstadt, 1991; Kaplan, 1972; Thompson, Zanna, & Griffin, 1995). Attitudes that are based on conflicting negative and positive reactions are
described as ambivalent (Priester & Petty, 1996; Thompson et al., 1995; van Harreveld, van der Pligt, & de Liver, 2009), and people with ambivalent attitudes generally report feeling conflicted, doubtful, and undecided (Jonas, Diehl, & Brömer, 1997; Newby-Clark, McGregor, & Zanna, 2002; Priester & Petty, 1996; Thompson, Zanna, & Griffin, 1995; van Harreveld et al., 2009). As a result, even though an ambivalent attitude is “correct” if the object indeed possesses a mixture of positive and negative qualities, people may ironically act as if the attitude is incorrect by failing to act on the attitude or acting toward the attitude object in scattershot or unpredictable ways (Gross, Holtz, & Miller, 1995; Moore, 1973; Petty & Krosnick, 1995; Thompson et al., 1995; Tourangeau, Rasinski, Bradburn, & D’Andrade, 1989; van Harreveld, Rutjens, Rotteveel, Nordgren, & van der Pligt, 2009; van Harreveld et al., 2009).

**Ambivalence as an Objective versus Subjective Construct**

As suggested by the very brief review of the literature above, researchers have taken two methods to measuring ambivalence in attitudes. The first method was introduced by Kaplan (1972), who proposed separating the traditional bipolar continuum in attitude measurement into two unipolar measures of relative positivity and negativity toward the attitude object. Two attitude-relevant measures can be computed from these unipolar scales. First, a “bivariate” measure of attitudes can be computed as a single

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1 Recent work (Refling, Calnan, Fabrigar, MacDonald, Johnson, & Smith, 2013) has highlighted that two variations on unipolar evaluations for capturing objective (or “structural”) ambivalence exist, each of which may consequentially differ in their power to predict other attitude-related variables: “Partitioned” evaluations, in which participants are instructed to indicate their one-sided (positive or negative) valenced reactions while ignoring or negating their opposing valenced reactions; and “non-partitioned” evaluations, in which there are no explicit instructions to ignore their opposing reactions. The current thesis focuses on and uses partitioned evaluations in each study, as recommended originally by Kaplan (1972).
attitude measure (subtracting absolute negative from positive reactions) that is functionally equivalent to the traditional bipolar measure, correlating with the bipolar measures at around .9 (Priester & Petty, 2001; Thompson et al., 1995). Second, and more pertinent to the current research, what past researchers have labeled “objective” (e.g., Priester & Petty, 1996) or “potential” ambivalence (e.g., Newby-Clark et al., 2002) can be computed as a function of the extent to which participants report values on each of the unipolar measures that are both similar and extreme. Several methods exist for computing ambivalence in this manner, and these equations have been thoroughly examined in past work (e.g., Breckler, 1994; Priester & Petty, 1996; Thompson et al., 1995). Notably, each of the proposed measures correlates with the others at a level of about .9, making them empirically interchangeable, though conceptually distinct.

The second method of measuring ambivalence has focused instead on capturing the extent to which people experience a feeling of the ambivalence in their attitudes. This metacognitive approach was inspired by converging lines of research. Tourangeau et al. (1989), for instance, were among the first to examine the extent to which people reported feeling more or less mixed about their attitudes. Along similar lines, Priester and Petty (1996) developed measures of “subjective” ambivalence to capture the extent to which people had mixed, conflicted, or undecided reactions toward a number of attitude objects, and Newby-Clark et al. (2002) asked people to rate the extent to which they felt emotionally mixed or torn about the attitude object to measure what they labeled “felt” attitudinal ambivalence. These measures of subjective ambivalence parallel other measures of overall attitude strength that capture individuals’ secondary, metacognitive
judgments about their attitudes, such as the relative doubt or confidence that people reporting having in a specific attitude about a particular object (Gross et al., 1995; Priester & Petty, 1996; Thompson et al., 1995; Petrocelli et al., 2007). Past work has demonstrated that attitude certainty and subjective attitudinal ambivalence, for example, are generally moderately to highly related ($rs = - .47$ to $-.61$). Thus, it is reasonable, if somewhat simplistic, to average measures of ambivalence and certainty (reverse-scored) into a unified construct of subjective ambivalence (see also Holbrook, 2003; Kokkinaki, 1998; Krosnick et al., 1993; Lavine et al., 1998; Visser, Bizer, & Krosnick, 2006; Visser, Krosnick, & Simmons, 2003). Because subjective ambivalence is one of the fundamental indicators of attitude strength, the attitudes that people form toward valence-inconsistent objects are less likely to persist over time, to predict relevant behaviors, or to be resistant to persuasive attempts than attitudes formed toward valence-consistent objects (Clarkson, Tormala, & Rucker, 2008; Petty & Krosnick, 1995).

*Feeling More Ambivalent about Valence-Consistent Attitude Objects*

Even though both the objective and subjective measures of attitudinal ambivalence initially were assumed to capture the same underlying construct—the extent to which an attitude is ambivalent or not—past research has found that the two measures of ambivalence correlate between .21 and .52 (Priester & Petty, 1996; Thompson et al., 1995; Visser et al., 2006). In other words, based on the research to date, the extent to which people report having objectively conflicting positive and negative reactions to an attitude object only explains between 4% and 27% of the variance in how ambivalent
people actually report feeling about their attitudes. This finding, initially baffling when it was discovered (Thompson et al., 1995), has generated many questions about when and why people feel more or less ambivalent about more or less valence-consistent information.

To date, there are several documented occasions in which people report feeling more subjectively ambivalent in their attitudes than an objective measure of ambivalence would otherwise predict. For instance, people report feeling more ambivalent about their attitudes toward valence-consistent objects when their attitudes are not shared with liked others (Priester & Petty, 2001). Similarly, the extent to which people anticipate learning new counterattitudinal information in the future also predicts how ambivalent they feel about their present attitudes (Priester, Petty, & Park, 2007). And, when people report wanting to possess different attitudes than the ones that they currently have, the discrepancy between the current and the desired attitude predicts the extent to which people report feeling ambivalent about their current attitudes (DeMarree, Wheeler, Briñol, & Petty, 2013; see Briñol & Petty, 2009, pp. 99-101). Even mere semantic incongruity in trait descriptions, beyond their evaluative incongruity, can cause people to feel more ambivalent about their attitudes (Gebauer, Maio, & Pakizeh, 2013).

In short, previous research has established that people will report feeling more ambivalent about their attitudes when they are reminded that their friends and family possess different attitudes than they do, when they are uncertain whether they have all of the correct information to inform their current attitudes, or when they merely wish that they would have different attitudes than those that they currently possess. Another way to
summarize these results is that objective and subjective measures of ambivalence correlate less strongly, or not at all, when people perceive inconsistent (versus consistent) contextual information related to the attitude that goes beyond the primary valence-inconsistency of the positive and negative reactions that they have toward the attitude object.

**Feeling Less Ambivalent about Valence-Inconsistent Attitude Objects**

As just reviewed, an interesting observation from past findings is that the people seem capable of feeling *more* ambivalent about their attitudes than their objective positive and negative reactions to the object alone would indicate. But when might people instead report feeling *less* ambivalent than their valenced reactions alone would predict? At present, this question remains unexplored in the literature.

Why do people feel conflicted when information is both positive and negative? Perhaps one explanation is that people generally prefer to categorize evaluated objects as positive *or* negative, but not both, when forming an attitude toward any given object. An object that activates competing mental associations, such as “positive” and “negative,” would presumably lead people to feel perceptually “unready” (Bruner, 1957), and thus conflicted, about how to define their attitudes toward the object. Indeed, as previously reviewed here, attitudes are generally categorized as positive *or* negative along a bipolar continuum, such that any increase in reported positivity toward an object presupposes an equal and opposite *decreasing* negativity toward the object (Likert, 1932; Newton, 1729; Osgood et al., 1957; Thurstone, 1928). In the case of when a person perceives an
objectively mixed-valence attitude object, however, this person would experience confusion as to how to categorize the object, in turn leading him or her to feel conflicted or uncertain (ambivalent) about his or her attitude.

If contextual information related to the attitude can cause people to feel more ambivalent than objective measures would predict, can contextual information sometimes lead people to feel less ambivalent? The current research explores the possibility that a forewarning, or expectation, of ambivalence can diminish the conflict from valence-inconsistent information. This hypothesis is consistent with research on “stealing thunder” (e.g., Dolnik, Case, & Williams, 2003), where the forewarning of future negative information about a target diminishes the impact of this information on evaluations and judgments of the target when it is finally revealed at a later time. Similarly, the extent to which people feel less (versus more) “surprised” about an experience of pleasure or pain, based on a priori hedonic or affective forecasting, predicts diminished extremity in their reported actual experience of the pleasing or painful event (Dunn, Wilson, & Gilbert, 2003; Mellers & McGraw, 2001; Mellers & Ritov, 2010; Wilson & Gilbert, 2005).

Returning to ambivalence, what if some contextual information about the attitude object provided an expectation that the object will be mixed in valence? Would this diminish the experienced conflict compared to not being warned? As highlighted earlier, there are many such situations in which people routinely encounter mixed-valence attitude objects: Shopping for cars or apartments, spending time with certain family members or friends, and making weighty health-related decisions, to name just a few.
Compared to people with no pre-formed expectations, would people who expect to have both positive and negative information presented about an object feel less ambivalent about their subsequent attitudes?

Consider a more specific scenario, regarding a doctor-patient interaction. A doctor has a duty to inform his or her patient of an array of treatment options. The doctor also may feel a duty to advocate for one option in particular, Treatment X, based on medical expertise and knowledge of the patient’s health profile. Before learning of the doctor’s recommendation, the patient may be expecting (or hoping) that the option presented will be ideal (i.e., all pros and no cons). The doctor, however, knows that Treatment X, like most treatments, has both pros and cons. Because of this, the doctor also realizes that the patient is likely to feel conflicted about Treatment X, forming a weak preference for it. This, in turn, will likely motivate the patient to seek out more information in order to resolve ambivalent feelings, which may or may not dissuade the patient from opting for Treatment X. Should the doctor make explicit to the patient in advance that Treatment X has known benefits and drawbacks? Or, should the doctor merely inform the patient of the facts, without further preparation for mixed-valence information? Which of these approaches would lead the patient to feel less attitudinally ambivalent?

Overview of the Present Research

In this thesis, I continue a research tradition from the literature on attitudinal ambivalence, which has focused on examining the reasons why objective measures of conflicting positive and negative reactions are only moderately predictive of the
ambivalent feelings people experience in their attitudes. As has been reviewed, numerous variables have been uncovered that lead to people to feel more ambivalent than predicted by their conflicting valenced reactions, from the intrapersonal (Priester & Petty, 2001) to the counterfactual (Priester, Petty, & Park, 2007), and from the dispositional (Newby-Clark et al., 2002) to the situational (van Harreveld, Rutjens, et al., 2009). Unlike the past work in this tradition, however, I focus on an antecedent of ambivalence—individuals’ expectations for future information—that I hypothesize should lead people to feel less ambivalent, rather than more ambivalent, than their positive and negative reactions would otherwise predict.

Across three studies, I examined when and why people feel more or less subjectively ambivalent about their attitudes toward objects that are associated with objectively valence-inconsistent information. The basic experimental design was adapted from procedures used in the person perception and attitude formation literatures (e.g., Hastie & Kumar, 1979). Specifically, people learned about a target individual, “Bob,” via two types of information: Trait “summary” information, and piecemeal “behavioral” information. Trait information was provided via summary judgments that were presumably written by people who knew the target well. This summary information was designed to serve either as an expectation of future specific information about the target when the summary preceded the behavioral information, or more simply as another piece of information when it followed the behavioral information. Then, behavioral information was provided as a set of actions that the target was observed to do during a specific span of time. After learning all of this information about Bob, participants’ attitudes toward
Bob, their responses on positive and negative unipolar scales (used to compute objective ambivalence scores), and their degree of subjective ambivalence were measured. In Studies 2 and 3, self-reported feelings of having expectations confirmed or disconfirmed were also assessed.

I predicted that providing individuals with a context that explicitly leads to the formation of an expectation of valence-inconsistency about Bob would lead people to feel less subjective ambivalence in their subsequent attitudes toward him when he indeed evokes both positive and negative reactions, compared to when people had an expectation of valence-consistency or no expectation. Moreover, I predicted that manipulations of participants’ prior expectations would not affect their attitudes or their computed objective ambivalence toward Bob. More specifically, in each of the studies, Bob’s behaviors were either valence-consistent or valence-inconsistent (Study 1), or they were always valence-inconsistent (Studies 2-3). Participants were additionally presented with contextual information via a summary judgment that was presented before (Studies 2-3) or both before and after (Study 1) they learned about his specific behaviors, in order to manipulate the expectations that participants would have for how Bob would actually behave. Overall, I predicted that participants who formed valence-inconsistent expectations of Bob (versus participants with no or other expectations) would report feeling less ambivalent about their attitudes toward Bob. Finally, I expected to find evidence for a mediational pattern (Studies 2 and 3) such that the extent to which people felt that their expectations about Bob had been confirmed by the information they learned about him would account for their reported attitudinal ambivalence.
Study 1

In the first experiment, I provided an initial test of the idea that when people expect valence-inconsistent information, this will decrease the experience of ambivalence to evaluatively inconsistent information, compared to when valence-consistency is expected or when there are no expectations. To test this notion, I had participants learn some behavioral information about Bob that was either valence-consistent (i.e., all negative) or valence-inconsistent (some positive and some negative). Additionally, I presented participants with summary information about Bob that was either valence-consistent or valence-inconsistent, such that this information either matched or mismatched the behaviors that they read. Finally, I also manipulated whether participants learned the summary information about Bob before or after learning his behaviors in order to vary whether participants were able to form expectations of Bob (i.e., learning the summary first) or not (learning the behaviors first).

I predicted first that attitudes toward Bob would differ only as a function of the information that people associate with Bob. That is, I expected two main effects of summary and behavior to predict individuals’ attitudes toward Bob, such that increasingly valence-inconsistent information about Bob should lead to more liking compared to increasingly valence-consistent information that was all negative. Similarly, I expected the same pattern to emerge on a measure of objective ambivalence, such that
more valence-inconsistent information would lead participants to report more mixed positive and negative reactions to Bob than would more valence-consistent (i.e., all negative) information.

On participants’ reported feelings of subjective ambivalence in their attitudes toward Bob, however, I predicted a three-way interactive effect of summary, behaviors, and order of presentation. First, when the summary followed the behaviors, I expected to replicate the additive effects from past research on ambivalence (e.g., Priester & Petty, 1996), which would mean that increasing the extent to which an object is associated with both positive and negative qualities (i.e., objective ambivalence) will lead to a similar increase in feelings of subjective ambivalence that people report having in their attitudes. In the current study, then, I would expect that people would feel more subjectively ambivalent when the information is increasingly valence-inconsistent versus consistent. Put simply, providing participants with inconsistent behaviors and an inconsistent summary should individually and in combination increase their reported subjective ambivalence.

Importantly, however, I also expected to find evidence in support of an interactive effect of summary and behavior when the summary preceded the behaviors. In this order, placing a valence-inconsistent summary before valence-inconsistent behaviors should decrease feelings of ambivalence compared to placing a valence-consistent summary before the inconsistent behaviors. This effect of order was predicted based on past work on stealing thunder and surprise. Because an ambivalent summary would allow people to form an expectation of receiving future ambivalent information (e.g., his behaviors), such
information should be less disconcerting than if they were not prepared to receive it. Finally, when the behaviors are valence-consistent, ambivalence was expected to be relatively low regardless of the summary or other contextual information (e.g., Refling et al., 2013). Thus, the primary predictions of Study 1 were (i) to show that attitudes and objective ambivalence change only when the valence of the object changes, and (ii) to illustrate that subjective ambivalence need not necessarily increase with increasing amounts of valence-inconsistent information.

**Method**

*Overview*

*Study design.* One hundred sixty-one undergraduate students at the Ohio State University participated in the study in exchange for credit in their introductory psychology courses, with no exclusions. All participants learned about and expressed their attitudes toward Bob, with each participant randomly assigned to experimental condition following a 2 [Summary information: Valence-inconsistent vs. Valence-consistent] X 2 [Behavioral information: Valence-inconsistent vs. Valence-consistent] X 2 [Order of information presentation: Summary first vs. Behaviors first] between-participants factorial design. All of the valence-consistent behaviors were negative.

*Procedure.* Participants were invited to sign up for a study on their opinions about a variety of issues and people. Between 1 and 10 participants at a time completed the

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2 Exclusion criteria in all of the studies reported here were defined as failure to complete the study in its entirety, and providing responses on any of the dependent measures that were greater than two standard deviations (2 SD) from the mean. In the current study, no participants failed to complete the study, and three participants were identified as outliers by indicating responses on their attitudes (one participant) or subjective ambivalence (two participants) greater than 2 SD from the mean. Because the results were not significantly different whether these participants were excluded or not, analyses of the full sample (N = 161) are reported here.
study on laboratory computers using Medialab software (Jarvis, 2010), scheduled in 30-minute blocks. As a cover story, participants were told that the study was being conducted in collaboration with the clinical psychology program in order to learn how certain types of information can be used when forming impressions of individuals. Thus, participants were provided with credible reasons to believe that they were reading summary impressions about an unidentified person named “Bob” that were written by actual people, and that the behaviors that Bob “actually did” were in fact true observations. After reading the experimental materials, participants reported their attitudes toward Bob, and then responded to the other dependent measures in random order. Once participants completed the last of these measures, they were debriefed and thanked for their time and effort.

Independent Variables

Summary information. Participants were presented with one of two summary impressions of Bob that were framed as coming from someone who knows Bob well. One summary described Bob as being a negative person, while also stating that he was “entirely capable” of being a good person (valence-inconsistent summary). The other summary described Bob as being quite a negative person, and stated that he was “entirely incapable” of being a good person (valence-consistent summary). More specifically, participants read the following paragraph, where bolded words were included in the valence-inconsistent summary and italicized words in parentheses in the valence-consistent (negative) summary:
"Bob is an interesting guy, to say the least. He is known for some pretty antisocial behaviors, but (and) he is also known to be extremely nice to many people (to never be nice to anyone, ever). At any given moment, Bob may be incredibly rude or say something offensive. But (Basically), you know with Bob that he is very capable (is not at all capable) of being kind and helpful. I think he may have some kind of mood disorder. All in all, it can be difficult to get along with Bob."

Behavioral information. Participants also learned about 10 behaviors that Bob had been directly observed doing over the past year. Each of the 10 behaviors was presented to participants in random order for 5s at a time on the computer screen. In the valence-inconsistent condition, participants were presented with five behaviors that were negative and five that were positive (e.g., “Bob is exceedingly polite to waitresses in restaurants and he tips them generously”). In the valence-consistent condition, participants were presented with ten behaviors that were all negative (e.g., “Bob is incredibly rude to waitresses in restaurants and he never leaves a tip;” see Table 1 for a complete list of the behaviors listed in each condition).

Order of information presentation. The third independent variable was the order in which the summary and behavioral information was presented. Half of the participants received the summary before the behavioral information (“summary first”), and the other
half of participants received the summary after the behavioral information ("summary second") in order to manipulate whether or not people could form expectations for how Bob would behave, respectively.

**Dependent Variables**

*Attitudes*. Participants’ attitudes toward Bob were assessed using three semantic differential bipolar scales (*good-bad, positive-negative, favorable-unfavorable*) with 11 points each. The measures were highly reliable ($\alpha = .93$), so they were averaged to create an index of participants’ attitudes.

*Objective ambivalence*. Participants provided their reactions to Bob on two unipolar scales assessing the extent to which they had exclusively positive or exclusively negative thoughts about Bob, while ignoring their opposing reactions at the moment (e.g., 0 = “No negativity at all,” 10 = “Maximum negativity;” Cacioppo & Berntson, 1994; Kaplan, 1972; Priester & Petty, 1996; Refling et al., 2013). Then, a measure of objective ambivalence was computed via the Griffin formula (the similarity-intensity model [SIM]; Priester & Petty, 1996; Thompson et al., 1995), which is calculated as (i) the average of the two unipolar measures, (ii) minus the absolute value of the difference between the two unipolar measures.

*Subjective ambivalence*. Participants were asked to indicate the amount of subjective ambivalence they felt in their attitudes toward Bob on eight bipolar measures, anchored with 0 (*I have completely one-sided reactions, I feel no conflict at all, I feel no indecision at all, not at all certain, not at all confident, not at all correct, not*
at all clear, I feel that I don’t know him at all) and 10 (I have completely mixed reactions, I feel maximum conflict, I feel maximum indecision, extremely certain, extremely confident, extremely correct, extremely clear, I feel that I know him extremely well), with the last five items reverse-scored. These eight items were highly reliable (\( \alpha = .89 \)), so they were averaged to create an index of participants’ overall subjective feelings of ambivalence in their attitudes toward Bob.

**Emotional reactions.** Finally, participants reported their vague feelings of arousal (Elliot & Devine, 1994) and other incidental emotions (e.g., guilt, disappointment) after learning about Bob, in order to allay suspicion of the true purposes of the study. No effects of the manipulations were significant on any of these measures (nor in any of remaining studies), and so they are not discussed further.
<table>
<thead>
<tr>
<th>Valence-Consistent (Negative) Behaviors Condition</th>
<th>Valence-Inconsistent Behaviors Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob likes to end each workweek by <em>mooching free drinks from his co-workers.</em></td>
<td>Bob likes to end each workweek by <em>buying a round of drinks for his co-workers.</em></td>
</tr>
<tr>
<td>Bob uses a <em>BB gun to shoot at birds</em> that land on his backyard birdfeeder.</td>
<td>Bob uses a <em>zoom lens to shoot photos of birds</em> that land on his backyard birdfeeder.</td>
</tr>
<tr>
<td>Bob <em>is incredibly rude</em> to waitresses in restaurants and <em>he never leaves a tip.</em></td>
<td>Bob <em>is exceedingly polite</em> to waitresses at restaurants and <em>he tips them generously.</em></td>
</tr>
<tr>
<td>Bob <em>laughed and sped by a commuter</em> who fell off his bike during rush hour.</td>
<td>Bob <em>stopped his car to help out a commuter</em> who fell off his bike during rush hour.</td>
</tr>
<tr>
<td>Bob <em>refused to help</em> his neighbor look for her dog that had gone missing.</td>
<td>Bob <em>decided to help</em> his neighbor look for her dog that had gone missing.</td>
</tr>
<tr>
<td>Bob decided to ruin a surprise party for his friend by telling him about it.</td>
<td></td>
</tr>
<tr>
<td>Bob stole a pair of knitted gloves for himself at a summer arts and crafts festival.</td>
<td></td>
</tr>
<tr>
<td>Bob destroyed a bookshelf that was a housewarming gift from his neighbor.</td>
<td></td>
</tr>
<tr>
<td>Bob pretends to be homeless at a nearby soup kitchen to get a free meal every Sunday night.</td>
<td></td>
</tr>
<tr>
<td>Bob found a lost wallet, kept the $76 in cash that was inside, and threw away everything else.</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. List of behaviors that Bob “actually did,” depending on the condition to which participants were randomly assigned.
Results

**Attitudes.** Participants’ attitudes toward Bob, computed as the average of participants’ responses to the three semantic differentials, were submitted to a 2 [Summary: Valence-inconsistent vs. Valence-consistent] X 2 [Behaviors: Valence-inconsistent vs. Valence-consistent] X 2 [Order: Summary first vs. Behaviors first] between-participants ANOVA. There was a main effect of summary, $F(1, 153) = 8.90, p = .003$, such that participants had more positive attitudes toward Bob when presented with the valence-inconsistent summary ($M = 4.13$) than when presented with the valence-consistent (all negative) summary ($M = 3.52$). There was also a main effect of behaviors, $F(1, 153) = 227.14, p < .001$, where participants reported more positive attitudes toward Bob when they learned valence-inconsistent behaviors ($M = 5.36$) versus valence-consistent (all negative) behaviors ($M = 2.29$). Unexpectedly, there was also a marginally significant main effect of order, $F(1, 153) = 3.21, p = .075$, such that participants who were first presented with summary impressions of Bob reported having more negative attitudes toward him ($M = 3.65$) than did participants who were first presented with the behaviors ($M = 4.01$). None of the interactions between the independent variables qualified these effects, $Fs < 1.9, ps > .17$. Thus, as predicted, participants only reported having different attitudes toward Bob when the valence of the information attributed to Bob was more or less negative.

**Objective ambivalence.** The extent to which participants reported having objectively conflicting positive and negative reactions to Bob was computed via the Griffin ambivalence formula using participants’ responses to the unipolar measures of
positivity-only and negativity-only (Thompson et al., 1995), ranging in possible scores from -5 (zero positive or negative reactions to Bob) to 10 (maximally positive and maximally negative reactions to Bob). This measure was submitted to the same 2 [Summary: Valence-inconsistent vs. Valence-consistent] X 2 [Behaviors: Valence-inconsistent vs. Valence-consistent] X 2 [Order: Summary first vs. Behaviors first] between-participants ANOVA as above. A main effect of behaviors was observed, $F(1, 153) = 111.11, p < .001$, such that participants who learned the valence-inconsistent behaviors had more objectively conflicting reactions to Bob ($M = 5.17$) than did participants learning the valence-consistent behaviors ($M = -0.42$). There was a similar trending effect of summary, $F(1, 153) = 1.69, p = .195$, such that participants who learned valence-inconsistent summary had greater objective ambivalence scores ($M = 2.72$) than participants who learned the valence-consistent summary ($M = 2.03$). There was also an unexpected marginal effect of order, $F(1, 153) = 2.97, p = .087$, where participants who learned the summary information first reported fewer objectively conflicting reactions to Bob ($M = 1.92$) than did participants who learned the behaviors first ($M = 2.83$). No other effects were significant, $Fs < 1, ps > .34$, indicating that, as with attitudes, participants only reported having more objectively conflicting reactions toward Bob when the valence of the information associated with Bob was different between conditions.

**Subjective ambivalence.** The index of participants’ subjective feelings of ambivalence toward Bob was submitted to the same 2 [Summary: Valence-inconsistent vs. Valence-consistent] X 2 [Behaviors: Valence-inconsistent vs. Valence-consistent] X 2 [Order: Summary first vs. Behaviors first] between-participants ANOVA as with the
previous measures. The predicted three-way interaction of summary, behavior, and order of presentation, $F(1, 153) = 4.07$, $p = .046$, was obtained (see Figure 1). Although some other lower order effects were also obtained, the focus is on the three-way interaction since the lower order effects must be interpreted in light of it.\footnote{The following lower order effects were obtained. First, a main effect of behavior, $F(1, 153) = 31.89$, $p < .001$, revealed that participants who were presented with valence-inconsistent behaviors felt more ambivalent in their attitudes toward Bob ($M = 6.74$) than did participants who learned valence-consistent behaviors ($M = 5.16$). A main effect of order was also observed, $F(1, 153) = 4.91$, $p = .028$, where participants first presented with the summary information felt less ambivalent in their attitudes ($M = 5.64$) than did participants who learned the behaviors first ($M = 6.26$). These main effects however, were qualified by a summary X order interaction, $F(1, 153) = 7.64$, $p = .006$, such that participants presented with a valence-inconsistent summary reported feeling less ambivalent in their attitudes when the summary came first ($M = 5.36$) than when the behaviors came first ($M = 6.76$), $F(1, 78) = 10.41$, $p = .002$. Participants who were presented with a valence-consistent summary did not show significant differences in subjective ambivalence whether it was presented before or after the behaviors, $F(1, 75) = 0.19$, $p = .665$ ($M$s = 5.76 and 5.92, respectively). Of course, all of these effects were qualified by the three way interaction presented in the text.}

To understand the three way interaction, the effects were broken down by presentation order of information. When the behavioral information came first (before the summary), two main effects were obtained. People felt less ambivalent about their attitudes toward Bob when the summary was valence-consistent ($M = 4.76$) than when it was valence-inconsistent ($M = 5.76$), $F(1, 69) = 6.39$, $p = .014$, and people likewise felt less ambivalent about their attitudes when the behaviors were valence-consistent ($M = 4.60$) rather than valence-inconsistent ($M = 5.92$), $F(1, 69) = 11.25$, $p = .001$. The interaction of summary and behavior on subjective ambivalence was not significant, $F(1, 69) < 1$, $p = .509$. In essence, when the summary information followed the behaviors, it was simply treated as another piece of information to add to the behaviors. Thus, in support of the additive hypothesis, when the behaviors were presented first, subjective ambivalence was highest when both behaviors and summaries were valence-inconsistent, and lowest when both behaviors and summaries were valence-consistent.
In contrast, when the summary information was presented first (before the behaviors), a different pattern of results emerged. Most notably, consistent with the interactive hypothesis, when the summary preceded behaviors, a significant interaction of summary and behaviors was present, $F(1, 84) = 4.89, p = .030$. People who learned valence-inconsistent behaviors about Bob reported feeling significantly less ambivalent in their attitudes when ambivalent information was expected (i.e., the summary led them to expect valence-inconsistent information) ($M = 4.85$) rather than valence-consistent information ($M = 6.28$), $F(1, 37) = 6.36, p = .016$. However, when people learned valence-consistent behaviors about Bob, subjective ambivalence was equivalent whether they were led to expect valence-inconsistent ($M = 4.87$) or valence-consistent ($M = 4.55$) behaviors via the summary information, $F(1, 47) < 1, p = .561$.\(^4\)

Another sensible approach to analyzing the three-way interaction is to break down these effects by consistency of behavior. In the valence-inconsistent behavior condition (grey bars in Figure 1), a significant interaction of summary and order was found, $F(1, 72) = 12.89, p = .001$. Most important for the present hypotheses, when the summary came first (thus serving as an expectation), those who received the valence-inconsistent summary reported less ambivalence ($M = 4.85$) than those who received the valence-consistent summary ($M = 6.28$), $F(1, 37) = 6.36, p = .016$. However, when the behaviors came first, those who received the valence-inconsistent summary reported more ambivalence ($M = 6.55$) than those who received the valence-consistent summary ($M = 4.55$).

\(^4\) Although less interesting in light of the two-way interaction, a main effect of behaviors was also obtained, $F(1, 84) = 22.04, p < .001$, though the main effect of summary was not significant. Participants overall reported feeling more ambivalent about their attitudes toward Bob when the behaviors were valence-inconsistent ($M = 6.56$) than when they were valence-consistent ($M = 4.71$).
5.29), $F(1, 35) = 6.77, p = .014$. Conversely, participants in the valence-consistent behaviors condition (white bars in Figure 1) reported different ambivalent feelings only as a function of the order in which the summary and behaviors were presented, $F(1, 81) = 4.57, p = .036$. Specifically, those who received the behaviors first reported more ambivalence ($M = 4.60$) than those who received the summaries first ($M = 3.71$).
Subjective ambivalence in attitudes toward Bob, as predicted by the interaction of summary (x-axis), behaviors (white vs. grey bars), and the order in which this information was presented (left vs. right). Note: Error bars represent standard errors.
Discussion

What do these results tell us about how people make sense of valence-inconsistent information? When people learned valence-inconsistent behaviors following the creation of an expectation that valence-inconsistent information was upcoming, people reported feeling less ambivalent in their attitudes toward Bob compared to when they expected valence-consistency or when the same valence-inconsistent summary was instead presented after the valence-inconsistent behaviors. In the latter case, the valence-inconsistent summary added to participants’ reported feelings of subjective ambivalence. When a valence-inconsistent summary preceded valence-inconsistent behavioral information, the summary apparently mitigated participants’ feelings of subjective ambivalence by leading them to expect valence-inconsistent behaviors in advance. These results suggest that the consistency of the primary information associated with an attitude object is not solely responsible for the extent to which people express feeling subjectively ambivalent in their attitudes toward the object. Their expectancies also matter.

Study 1 replicated past work on subjective ambivalence while providing evidence for previously unobserved effects. First, Study 1 showed that people generally feel more subjectively ambivalent in their attitudes toward objects that are objectively mixed in their positive and negative attributes, as is already established via the additive hypothesis of valence-inconsistent reactions (e.g., Priester & Petty, 1996). But, this main effect of greater objective ambivalence predicting greater subjective feelings of ambivalence was susceptible to a manipulation of the expectations participants formed before learning valence-inconsistent information about the target. Essentially, people who were simply
told in advance that the person they were about to read about can act in both prosocial and antisocial ways (versus consistently antisocial ways) reported feeling less ambivalent about a valence-inconsistent object compared to the control conditions. If all this information was held constant, but the order of this presentation was reversed, then participants felt significantly more ambivalent about their attitudes. In other words, valence-inconsistent information was ironically consistent with their prior expectations that Bob would behave in an inconsistent manner, and this was influential on the degree to which people experienced attitudinal ambivalence.
Study 2

Study 2 was designed to address three points based on the results of Study 1. First, I wanted to replicate the effect that expecting valence-inconsistent information would lead people to feel less ambivalent in their attitudes about a valence-inconsistent object, compared to not expecting inconsistent information. Related to this point, the second goal of Study 2 was to compare this manipulation of expectations to a more robust control condition in which people received no summary information at all, as well as to another condition in which individuals’ valence-inconsistent expectations were presented but then undermined by additional information.

Finally, I wanted to test the prediction that the extent to which people feel that their expectations of attitudinal information are relatively confirmed or disconfirmed can account for how subjectively ambivalent people feel in the attitudes they form about an objectively valence-inconsistent attitude object. Thus, mediation analyses were planned in Study 2 to examine whether the negative effect of valence-inconsistent expectations (compared to having no expectations, having valence-consistent expectations, or having undermined valence-inconsistent expectations) on individuals’ reported feelings of subjective ambivalence toward a valence-inconsistent attitude object was accounted for by its positive effect on the extent to which participants reported that their expectations of the object had been confirmed versus disconfirmed.
Specifically, in this study, all participants learned the same valence-inconsistent behaviors as in Study 1, and were additionally randomly assigned to one of four conditions. One fourth of participants received the valence-inconsistent summary before the valence-inconsistent behaviors, just as in the critical condition of Study 1. Another fourth of the participants learned the valence-consistent (all negative) summary before the inconsistent behaviors, the same as in Study 1. Another fourth of participants learned no summary at all before learning the valence-inconsistent behaviors, serving as a tighter no expectancy control condition than what was tested in Study 1.

The last fourth of participants learned the valence-inconsistent summary before the valence-inconsistent behaviors, but read additional information between the summary and the behaviors reminding them that they would be reading much more about Bob later in the study. The aim of this information was to undermine the usefulness of the summary in knowing what to expect Bob to act like. If the summary information could be undermined, such that it was not useful for the creation of a meaningful expectation of how Bob will behave, then participants should express feeling as ambivalent in their attitudes toward Bob as would participants with no expectations or mismatching (valence-consistent) expectations. In short, participants assigned to learn about Bob in either of the preceding three conditions should report feeling more ambivalent in their attitudes toward Bob than participants assigned to the critical condition in which they receive only a valence-inconsistent summary of Bob followed by his valence-inconsistent behaviors.
Critically, it was hypothesized that the extent to which people reported that their expectations of Bob had been confirmed (versus disconfirmed) would account for differences in subjective ambivalence. Because only one of the four conditions (valence-inconsistent summary condition) was predicted to lead participants to have their expectations about Bob confirmed and therefore feel less ambivalent in their attitudes toward him, an a priori contrast data analysis strategy was planned such that the valence-inconsistent summary condition would be coded as +3, with each of the other three conditions coded as -1. This a priori contrast would then be entered into ANOVAs on expectancy confirmation and subjective ambivalence before submitting these variables to a test of mediation. Finally, as in Study 1, I predicted that participants’ attitudes and objective ambivalence toward Bob should not differ between conditions, because the information associated with Bob would be the same for all participants.

Method

Overview

Study design. One hundred and thirty-five undergraduates from The Ohio State University were recruited to participate in this study in exchange for course credit in their introductory psychology courses, after which one participant who failed to complete the study and six participants who were identified as outliers on any of the dependent measures (two on attitudes, three on subjective ambivalence, and one on both expectancy confirmation and subjective ambivalence) were excluded, leaving a final sample of 128
in the reported analyses. As in Study 1, all participants learned about and expressed their attitudes toward Bob, being presented with the same 10 behaviors from the valence-inconsistent behaviors condition in Study 1 (see Table 1), and all learned the summary information first if they were assigned to a condition that included a summary. Each participant was randomly assigned to one of four conditions in a 1-factor design: No summary (control), valence-consistent (negative) summary, valence-inconsistent summary, or undermined valence-inconsistent summary.

Procedure. The experimental materials used in Study 2 were identical to Study 1, with the exception of the new manipulations described below.

Summary information. The content of the summary information that preceded the presentation of the valence-inconsistent behaviors was manipulated between participants across four conditions. In the valence-inconsistent summary condition, participants learned the same valence-inconsistent summary of Bob that was presented in Study 1, and then learned his valence-inconsistent behaviors. In the undermined valence-inconsistent summary condition (hereafter the “undermined summary” condition), participants learned the same valence-inconsistent summary of Bob, and were next presented with a sequence of four paragraphs that were each presented on screen for 10s. In essence, these screens emphasized to participants that they would be learning much more information throughout the study, and that they should try to maintain an open mind about Bob. This was designed to undermine the value of the summary, indicating that it could not be exclusively relied upon. More specifically, the exact narrative of the four screens went as follows, in order of their presentation to participants:
(1) “Please keep in mind that the information you just read comes from only one of several people who know Bob that you will read about today. You will be presented with much more information throughout the study.”

(2) “Some of what you will read will describe the extent to which the people who are talking about Bob, including what you just read, do or do not know him well. So it is extremely important that you keep this in mind as you learn even more about Bob.”

(3) “Thus, it will be most effective if you remain as open as possible to new information. You could think of this as "withholding judgment." There is much more information to come, so just keep this in mind.”

(4) “So, please take a moment to make sure that you are ready to learn a great deal more information about Bob. Click Continue below when you are ready.”
Finally, participants in the no summary control condition were presented the valence-inconsistent behaviors that Bob did without any other information.

*Dependent variables.* Before providing their responses to the same measures from Study 1 measuring attitudes toward Bob (α = .78), their objective ambivalence toward Bob, and their reported subjective ambivalence in their attitudes toward Bob (α = .81), participants first indicated the extent to which they agreed or disagreed that Bob confirmed their expectations for how he would behave on two items, using a 7-point scale of relative agreement (0 = Strongly disagree, 6 = Strongly agree): “Overall, Bob behaved in a way that was completely different from what I was expecting (reverse-coded),” and, “Given what I initially learned about Bob, the way he behaved matched my expectations.” Since these items exhibited sufficient reliability (α = .66), they were averaged to form an index of the extent to which participants felt that their expectations about how Bob behaved had been relatively confirmed or disconfirmed.

**Results**

*Expectancy confirmation.* The measure of participants’ self-reported feelings that their expectations of Bob were confirmed by his behaviors was first submitted to a one-way between-participants ANOVA consisting of the four experimental conditions (valence-inconsistent summary, undermined summary, valence-consistent summary, or no summary). As predicted, the extent to which Bob confirmed participants’ expectations of how he would behave varied as a function of condition, $F(3,124) = 10.66, p < .001$. To identify the source of this variation, two additional analyses were conducted. First, I
computed a one-way ANOVA for the three conditions that were not expected to differ (undermined summary, valence-consistent summary, no summary). This analysis, $F(2, 95) = 11.89, p < .001$, was unexpectedly significant, such that each of the conditions was significantly different than the others, $ps < .03$ (see means below). Nevertheless, the planned \textit{a priori} contrast (where $+3 =$ valence-inconsistent condition, $-1 =$ all other conditions) was next computed and the results of this test yielded a significant result consistent with the hypothesis, $F(1,126) = 5.55, p = .020$, such that participants in the critical valence-inconsistent summary condition reported that Bob confirmed their expectations more ($M = 4.48$) than did participants in the other three conditions combined ($M = 3.85$).

Finally, to compare all cells, pairwise contrasts revealed that participants who read only the valence-inconsistent summary before learning his valence-inconsistent behaviors reported that Bob better confirmed their expectations ($M = 4.56$) compared to participants who read no summary of Bob ($M = 3.18, p < .001$), and compared to participants who read a valence-consistent (negative) summary of Bob ($M = 3.89, p = .059$). Surprisingly, participants who read the valence-inconsistent summary alone versus those who also read the expectancy-undermining information reported that Bob confirmed their expectations to a statistically equivalent extent ($M = 4.61, p = .675$).

\textit{Attitudes and objective ambivalence.} Participants’ attitudes were submitted to a one-way ANOVA consisting of the same variables as above. Since behaviors, which had the largest impact on attitudes and objective ambivalence in Study 1 were not manipulated between participants in this study, we expected and found no effect of
condition on attitudes, $F(3,124) = 0.93, p = .426$, nor on objective ambivalence, $F(3,124) = 0.41, p = .744$.\(^5\)

**Subjective ambivalence.** Participants’ self-reported feelings of subjective ambivalence were submitted to the same one-way ANOVA as attitudes above, and this measure varied as a function of condition, $F(3,124) = 3.93, p = .010$ (see Figure 2). To identify the source of this variation, two additional analyses were conducted. First, I computed a one-way ANOVA for the three conditions that were not expected to differ (undermined summary, valence-consistent summary, no summary). As expected, this analysis, $F(2,95) = 0.23, p = .796$, revealed that these cells did not differ from each other. Second, as with expectation confirmation, computing the planned a priori contrast yielded a significant result, $F(1,126) = 11.45, p = .001$, such that participants in the critical valence-inconsistent summary condition reported less attitudinal ambivalence ($M = 5.66$) than did participants in the other three conditions combined ($M = 6.64$).

Then, to compare all cells, pairwise contrast analyses indicated that that participants in the valence-inconsistent summary condition reported less subjective ambivalence in their attitudes toward Bob ($M = 4.66$) compared to participants in the no

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\(^5\) To clarify the justification for these predictions, the effects of the summary and behavioral information manipulations on attitudes and objective ambivalence in Study 1 were reanalyzed, broken down by order. As expected, when the summary was presented first, there was no effect of the summary on attitudes, $F(1,84) = 2.63, p = .109$, or objective ambivalence, $F(1,84) = 1.62, p = .206$, although there was a significant effect of behaviors on attitudes, $F(1,84) = 149.97, p < .001$, and on objective ambivalence, $F(1,84) = 63.71, p < .001$. Conversely, when the summary information was presented second (after the behaviors), the summary exerted a significant effect on attitudes, $F(1,69) = 6.36, p = .014$, but not on objective ambivalence, $F(1,69) = 0.37, p = .544$; the effect of the behaviors remained significant on attitudes, $F(1,69) = 85.12, p < .001$, and on objective ambivalence, $F(1,69) = 48.39, p < .001$. These results indicate that the summary can be treated as a different piece of information by people in informing their attitudes, depending on whether it is used by people to expect future behavioral information (summary first) or whether it is processed as another piece of (valence-consistent or inconsistent) information (behaviors first).
summary control condition \((M = 5.76, p = .002)\), compared to participants in the valence-consistent summary condition \((M = 5.52, p = .021)\), and compared to participants in the undermined summary condition \((M = 5.61, p = .009)\). As predicted, the latter three conditions did not differ significantly from each other \((ps > .49)\).

**Mediation analyses.** Next, I tested whether the effect of condition on expectancy confirmation accounted for the effect of condition on participants’ reported feelings of subjective ambivalence in their attitudes toward Bob. Using the PROCESS macro for SPSS developed by Hayes (2013), I submitted participants’ scores on the subjective ambivalence index to mediation analysis, with the contrast-coded variable (valence-inconsistent summary = +3, other conditions = -1) as predictor, and participants’ scores on the expectancy confirmation index as mediator (Model 4). The overall mediation model was significant, \(F(2,125) = 10.94, p < .001, R^2 = .15\) (see Figure 3). First, the direct effect of the contrast variable on expectancy confirmation was significant, \(b = .16, t(126) = 2.36, p = .020\), as was its effect on subjective ambivalence, \(b = -.20, t(125) = -2.79, p = .006\). The direct effect of expectancy confirmation on subjective ambivalence was likewise significant, \(b = -.29, t(125) = -3.11, p = .002\). Finally, bootstrapping analyses \((N = 1000)\) yielded a significant indirect effect of the contrast variable on subjective ambivalence through its effect on expectancy confirmation, \(b = -.05, 95\% \text{ CI: } [-.115, -.011]\).6

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6 The alternative mediation model in which the effect of condition on expectancy confirmation is mediated by participants’ subjective ambivalence also yields a 95\% confidence interval that excludes the zero point, \([.020, .121]\).
Figure 2. Subjective ambivalence in attitudes toward Bob across the three conditions in Study 2. Note: Error bars represent standard errors.
Figure 3. Mediation analysis in which the relation between the critical condition and the three other conditions on subjective ambivalence is accounted for by the extent to which participants reported that Bob confirmed their expectations.
Discussion

Study 2 replicated and expanded on the findings from Study 1 in several important ways. First, participants who formed an expectation that Bob would behave in a mixed manner via a valence-inconsistent summary once again reported feeling less subjectively ambivalent in their attitudes about him after learning his valence-inconsistent behaviors compared to participants who expected Bob to act in a valence-consistent negative way. In Study 2, however, this observation was now in comparison to (a) participants who either learned nothing in advance, and (b) to participants who learned the same valence-inconsistent summary, but in a context that was intended to undermine the value of a summary as an expectation for how Bob would behave in the future.

Furthermore, Study 2 provided evidence that the extent to which participants felt subjectively ambivalent in their attitudes can be explained by how much these participants feel that their expectations for future attitude-relevant information about Bob were confirmed or violated. Despite the fact that that participants who learned a valence-inconsistent summary that was undermined reported feeling similarly confirmed in their expectations about how Bob would behave as did participants whose expectations were not explicitly undermined by additional information, the mediation model where the extent to which people felt that their expectations were confirmed (versus disconfirmed) predicted their feelings of subjective ambivalence remained significant. Of course, this claim would carry more weight if the results on expectation confirmation were more consistent with the hypotheses.
Thus, some conceptual issues remain to be addressed. For one, all of the comparisons between valence-consistent and valence-inconsistent expectations to this point have been in a single direction, i.e., comparing negative expectations with ambivalent expectations about how Bob will behave. In order to make the strongest case for the unique effect of valence-inconsistent (versus valence-consistent) expectations leading people to feel less subjectively ambivalent about valence-inconsistent attitude objects, it is necessary that this effect be compared with a condition in which people instead expect valence-consistent positive information as well. Another issue arose, as noted in the previous paragraph, in that participants in the undermined summary condition reported that their expectations about how Bob would behave were statistically equivalent to participants in the valence-inconsistent summary condition. So, in Study 3, I included the undermined summary condition to examine if this unpredicted effect was reliable. In all, Study 3 was designed to address these concerns, while replicating the effect of valence-inconsistent (versus other) expectations leading people to feel less ambivalent about their attitudes toward an objectively valence-inconsistent object.
Study 3

As stated above, Study 3 was designed to expand on the interactive hypothesis that expecting valence-inconsistent (versus valence-consistent) information leads people to feel less ambivalent about their attitudes toward an objectively valence-inconsistent object. Study 3 was additionally designed to go beyond mere replication, showing that the observed interactive effect of expectation versus attitude-relevant information consistency was not driven by its comparison to only valence-consistent negative expectations. Finally, replicating mediational evidence for the proposed causal model—that the extent to which people feel that their expectations have been confirmed (versus disconfirmed) predicts lower (versus higher) subjective ambivalence—was central to the purpose of Study 3.

Two hypotheses were then tested in Study 3. First, I predicted that when receiving inconsistent behavioral information, people having a valence-inconsistent expectation of Bob would feel that their expectations were less violated and would report feeling less ambivalent in their attitudes, in this case compared to people having no expectation, to people having a valence-consistent positive expectation, and to people having an undermined valence-inconsistent summary. Then, I predicted that the extent to which people reported feeling that their expectations of Bob had been relatively confirmed or
disconfirmed would account for how ambivalent people would report feeling about their attitudes toward Bob.

Once more, it was hypothesized that the extent to which people reported that their expectations of Bob had been confirmed (versus disconfirmed) would account for differences in subjective ambivalence. As in Study 2, only one of the four conditions (valence-inconsistent summary condition) was predicted to lead to greater expectation confirmation and less subjective ambivalence in their attitudes. So, an a priori contrast identical to that presented in Study 2 was computed, where the valence-inconsistent summary condition was coded as +3, with each of the other three conditions coded as -1. Finally, again like in Study 2, this contrast was then entered into ANOVAs on expectancy confirmation and subjective ambivalence before testing the mediational model.

Method

Overview

Study design. One hundred fifty-three undergraduates from The Ohio State University were recruited to participate in this study in exchange for course credit in their introductory psychology courses, after which three participants who failed to complete the study and seven participants who were identified as outliers on any of the dependent measures (three on attitudes, two on subjective ambivalence, one on both expectancy confirmation and subjective ambivalence, and one on the three measures of attitudes, expectancy confirmation, and subjective ambivalence) were excluded, leaving a final sample of 143 for analyses. As in the previous two studies, all participants learned about
and reported their attitudes toward Bob. All participants were presented with the same 10 valence-inconsistent behaviors from the previous two studies, and all learned the summary information first if they were assigned to a condition in which a summary was provided. Each participant was randomly assigned to one of four conditions in a 1-factor design: no summary (control), valence-consistent positive summary, valence-inconsistent summary, or undermined valence-inconsistent summary.

Procedure. Study 3 was identical to Study 2, with the exception of a single methodological alteration. To address the limitations of the past two studies’ comparison of valence-inconsistent information only to negative expectations in the valence-consistent summary, the current study instead employed positive expectations in this condition. As a result, the template of the summary information presented to participants in the previous two studies was altered to reflect this approach, where bolded words were included in the valence-consistent positive summary and italicized words in parentheses in the valence-inconsistent summary:

"Bob is an interesting guy, to say the least. He is known for some pretty prosocial behaviors, and (but) he is also known to never be mean to anyone, ever (to be very mean to many people). On any given day, you can expect that Bob will be incredibly generous, or perhaps say something extremely flattering, even to a stranger. Basically (But), you know with Bob that he is not at all capable (is very capable) of being unkind or rude at
any time. All in all, I think Bob is a difficult person to understand."

**Independent variable.** The content of the summary information that preceded the presentation of the valence-inconsistent behaviors was manipulated between participants in a similar manner to Study 2. In the no summary condition, participants were presented the valence-inconsistent behaviors without any prior summary information, as in Study 2. In the valence-consistent positive summary condition, participants were presented with a summary of Bob that described him as an extremely prosocial person, and being entirely incapable of acting negatively toward others (see the Procedure subsection, above). Participants in the valence-inconsistent summary condition read the same valence-inconsistent summary as in the previous two studies. And, finally, participants in the undermined valence-inconsistent summary condition also read the valence-inconsistent summary, but in addition were exposed to a series of screens that emphasized that the summary was just one of several pieces of information that they would learn about throughout the study, in the same manner as in Study 2.

**Dependent variables.** The same measures from Study 2 were used in this study, capturing whether Bob met participants’ expectations (α = .80), as well as participants’ attitudes toward Bob (α = .84), their objective ambivalence toward Bob, and their reported subjective ambivalence (α = .77).
Results

*Expectancy confirmation.* The extent to which participants reported that Bob behaved in a way that was consistent with their expectations was submitted to a one-way [Summary: No summary, Valence-consistent (positive) summary, Valence-inconsistent summary, or Undermined valence-inconsistent summary] between-participants ANOVA. Overall, self-reported expectancy confirmation varied as a function of summary condition, $F(3,139) = 27.42, p < .001$. To identify the source of this variation, two additional analyses were conducted. First, I computed a one-way ANOVA for the three conditions that were not expected to differ (undermined summary, valence-consistent summary, no summary). This analysis, $F(2,102) = 16.23, p < .001$, revealed that these cells did in fact differ from each other, as in Study 2, but in this case only the undermined summary condition varied significantly from each of the other two conditions, $p$s < .001, whereas the control and valence-consistent conditions were statistically equivalent, $p = .614$.

Nonetheless, the planned *a priori* contrast also yielded a significant result, $F(1,141) = 43.45, p < .001$. Participants in the critical valence-inconsistent summary condition reported that their expectations had been confirmed more ($M = 4.97$) than did participants in the other three conditions combined ($M = 3.32$). Finally, pairwise contrast analyses indicated that participants in the valence-inconsistent summary condition reported that Bob behaved in a way that confirmed their expectations more ($M = 4.97$) in comparison to participants in the no summary condition ($M = 2.84, p < .001$), to participants in the valence-consistent positive summary condition ($M = 2.96, p < .001$),
and, crucially, to participants in the undermined valence-inconsistent summary condition as well ($M = 4.30$, $p = .021$). Thus, as hypothesized, participants who were provided a valence-inconsistent summary about Bob were more likely to report that his valence-inconsistent behaviors were consistent with their expectations of how he would behave, compared to each of the other three conditions.

*Attitudes and objective ambivalence.* Participants’ attitudes toward Bob were submitted to the same one-way [Summary: No summary, valence-consistent (positive) summary, valence-inconsistent summary, or undermined valence-inconsistent summary] ANOVA as the expectancy confirmation measure. Though it was predicted that there would be a null effect of condition on attitudes because the summary was presented before the behavioral information, and the behaviors associated with Bob between conditions were equivalent (see footnote in Study 2 results), an unexpected effect of condition was, in fact, observed, $F(3,138) = 3.77$, $p = .012$. Contrast analyses indicated that participants in the valence-consistent positive summary condition expressed significantly more positive attitudes toward Bob ($M = 6.02$) compared to participants in the no summary condition ($M = 5.18$, $p = .001$) and to participants in the undermined valence-inconsistent summary condition ($M = 5.45$, $p = .029$), and reported marginally more positive attitudes than did participants in the valence-inconsistent summary condition ($M = 5.56$, $p = .067$). However, submitting attitudes to the 3 versus 1 *a priori* contrast yielded the hypothesized null effect, $F(1,141) = 0.00$, $p = .950$.

Then, participants’ objective ambivalence toward Bob was submitted to the same 1-factor [Summary: no summary, valence-consistent (positive) summary, valence-
inconsistent summary, or valence-inconsistent summary with context] ANOVA as the expectancy confirmation and attitudes measures, and, as predicted, objective ambivalence was found to not differ between conditions overall, $F(3,138) = 1.90, p = .132$.

Subjective ambivalence. Finally, the critical measure of participants’ subjective ambivalence in their attitudes toward Bob was submitted to the same one-way [Summary: No summary, Valence-consistent (positive) summary, Valence-inconsistent summary, or Undermined valence-inconsistent summary] ANOVA as the expectancy confirmation, attitudes, and objective ambivalence measures. As hypothesized, participants reported varying levels of subjective ambivalence as a function of their assigned condition, $F(3,138) = 2.75, p = .045$ (see Figure 4). To identify the source of this variation, two additional analyses were conducted. First, I computed a one-way ANOVA for the three conditions that were not expected to differ (undermined summary, valence-consistent summary, no summary). As expected, this analysis, $F(2,102) = 0.34, p < .710$, revealed that these cells did not differ from each other. Second, the 3 versus 1 a priori contrast yielded a significant result, $F(1,141) = 7.58, p = .007$, such that participants in the critical valence-inconsistent summary condition reported less attitudinal ambivalence ($M = 5.44$) than did participants in the other three conditions combined ($M = 6.15$). Finally, pairwise contrast analyses indicated that, as predicted, participants in the valence-inconsistent summary condition reported feeling less ambivalent in their attitudes toward Bob ($M = 5.44$) compared to participants in the no summary condition ($M = 6.02, p = .072$), to participants in the valence-consistent positive summary condition ($M = 6.28, p = .007$), and to participants in the undermined valence-inconsistent summary condition ($M = 6.10$, 47
None of the participants in any of the latter three conditions reported significantly different feelings of subjective ambivalence than the remaining two conditions, \( p > .40 \).

**Mediation analyses.** Lastly, I once again tested whether the effect of condition on expectancy confirmation accounted for the effect of condition on participants’ reported feelings of subjective ambivalence in their attitudes toward Bob. I created a contrast variable similar to the one computed in Study 2, based on condition (+3 = valence-inconsistent summary condition, -1 = all other conditions). Using the PROCESS macro for SPSS developed by Hayes (2013), I submitted participants’ scores on the subjective ambivalence index to mediation analysis, with the contrast variable as predictor and participants’ scores on the expectancy confirmation index as mediator just as in Study 2 (Model 4). The overall mediation model was significant, \( F(2,140) = 6.64, p = .002, R^2 = .09 \) (see Figure 5). First, the effect of the contrast variable on expectancy confirmation was significant, \( b = .41, t(141) = 6.59, p < .001 \), though its direct effect on subjective ambivalence with expectancy confirmation included in the model was not significant, \( b = -.20, t(140) = -1.31, p = .192. \) The effect of expectancy confirmation on subjective ambivalence was also significant, \( b = -.20, t(140) = -2.34, p = .021 \). Finally, bootstrapping analyses (\( N = 1000 \)) yielded a significant indirect effect of the contrast

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\(^7\) When expectancy confirmation is excluded from the model, the contrast-coded variable indeed has a significant effect on subjective ambivalence, \( b = -.18, t(141) = -2.75, p = .007, \) as would be predicted from the results of the omnibus one-way ANOVA.
variable on subjective ambivalence through its effect on expectancy confirmation, $b = -$ .08, 95% CI: [-.175, -.009] (see Figure 5).
Figure 4. Subjective ambivalence in attitudes toward Bob across the four conditions in Study 3. Note: Error bars represent standard errors.
Figure 5. Mediation analysis in which the relation between the critical condition and the three other conditions on subjective ambivalence is accounted for by the extent to which participants reported that Bob confirmed their expectations.
Discussion

Study 3 replicated the findings from Study 2, while demonstrating the same pattern of effects in comparison to a new condition in which people expected valence-consistent positive information. That is, this study showed that people who expected valence-inconsistent information (versus valence-consistent positive, undermined valence-inconsistent, or no expectations) felt less subjectively ambivalent about their attitudes toward an objectively mixed-valence object. Additionally, Study 3 also provided further evidence that people reported feeling more subjectively ambivalent in their attitudes to the extent that the information they learned was relatively less expected. That is, holding the nature of the information about Bob constant, manipulating individuals’ expectations about Bob significantly affected how ambivalent they felt in their attitudes toward Bob. This remained true regardless if the comparison was to valence-consistent expectations for negative (Study 2) or positive (Study 3) information.
General Discussion

The three studies presented in this thesis examined when people experience more or less ambivalence in their attitudes as a function of expectation formation and confirmation or disconfirmation of these expectations. When people formed attitudes toward an objectively mixed-valence individual, people who expected the target to be associated with both positive and negative qualities felt less ambivalent in their attitudes compared to people who had no expectations, incorrect expectations, or correct but undermined expectations. Moreover, the extent to which people reported whether their expectations of how the individual would behave were confirmed or disconfirmed (Studies 2 and 3) significantly accounted for how ambivalent they reported feeling in their attitudes toward him. More broadly, valence-inconsistent behavioral information led people to feel more ambivalent in their attitudes toward Bob whether they had received in advance no summary, an invalid (valence-consistent positive) summary, or a valid valence-inconsistent summary that was undermined by additional information, in comparison to conditions in which people simply learned a valence-inconsistent summary of Bob in advance of learning his valence-inconsistent behaviors.

Of course, it is important touch briefly upon the limitations of the studies reported here. At a conceptual level, for instance, some researchers may take issue with the operationalization of subjective ambivalence that was employed in each of these studies.
More specifically, the present work presented as “subjective ambivalence” items that have traditionally been treated as tapping into two distinct conceptual variables: Attitudinal ambivalence (Priester & Petty, 1996; 2001) and attitude certainty (Petty & Krosnick, 1995; Petrocelli, Tormala, & Rucker, 2007). Despite the fact that the alphas from reliability analyses on this 8-item index ranged from .77 to .89 across the three studies reported here, indicating acceptable to ideal loadings onto a single latent variable, one can still argue that these concepts are psychologically distinct and should be treated as such. Despite this observation, participants in these experiments reported responses to these items that were apparently tapping into a shared construct. Further research examining proposed differences between these conceptual variables would be insightful for how attitudes of varying subjective ambivalence and certainty may lead to meaningful differences in expression, persuasive susceptibility, and use by people when deciding on an attitude-relevant behavior (e.g., Clarkson, Tormala, & Rucker, 2008).  

Another possible limitation of the studies presented here is in their focus on attitudes toward novel individuals. It may be that people form attitudes toward people using a “different set of rules” than they would toward ideas, events, and objects, and that the studies presented here only apply to attitudes toward others. Some past research supports the view that attitudes toward individuals are unique in some ways, including work on the Pollyanna principle (Matlin & Stang, 1978) that describes a willful optimism in future interactions with other people, though work on the “positivity offset” (Norris,

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9 To clarify, analyses of the results were highly similar on each of the separate measures of attitudinal ambivalence and attitude certainty, but were strongest and most consistent when these measures were combined.
Larsen, Crawford, & Cacioppo, 2011) simply describes a tendency to see everything, not just other people, as being more likable. A great deal of research in social psychology has also been dedicated to studying the asymmetry between explanations of one’s own versus others’ behavior (Jones & Nisbett, 1971; Malle, 1999), which would emphasize that people are especially sensitive to information about other people that does not lead to a convenient dispositional attribution. In response to these observations, however, it is noteworthy that such biases are just as likely to be negative (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Fazio et al., 2004; Pietri, Fazio, & Shook, 2013; Wojciszke, Brycz, & Borkenau, 1993) and not at all consistently dispositional when observing others’ behaviors (Malle, 2006; 2011). Moreover, the results presented in this article were observed without having to account for moderating variables, such as differences in valence weighting (Pietri et al., 2013) or in relative preference for consistency (Cialdini et al., 1995), though these variables might further moderate the results reported here. Thus, these limitations will hopefully inspire future work examining these factors in more detail and their potential to influence ambivalence.

One final conceptual note worth addressing is the possible ambiguity as to what the ambivalent feelings that people report experiencing is directed toward—the attitude object, or the attitude itself. In other words, can people feel conflicted toward the attitude object, but not about the attitude? And, can people feel conflicted about their attitude, but not toward the object? Generally, the concept of ambivalence has been referred to as attitudinal ambivalence (e.g., Priester & Petty, 1996), which suggests that ambivalent feelings are thought to be attributed to the attitude at a metacognitive level rather than to
the object. However, measurement procedures often ask about reactions to the object. In the current work, the measure was more closely aligned with the attitude in recognition of the concept of attitudinal (rather than object) ambivalence. However, perhaps an individual’s mental representations of the object and attitude toward the object are so intertwined that feeling ambivalent about one correlates highly with feeling ambivalent toward the other. Another possibility is that “primary-level” ambivalence toward an object is better captured by measures of objective ambivalence, and that “secondary-level” ambivalence toward the attitude is reflected by measures of subjective ambivalence. Future theoretical development and empirical examination on these questions about the psychological experience of ambivalence would be a welcome addition to the literature.

_Ambivalence via Valence Inconsistency Versus Cognitive Inconsistency_

In general, people feel ambivalent in their attitudes as the number of conflicting valenced reactions they have toward the attitude object increases (Bargh et al., 1992; Breckler, 1994; Brown & Farber, 1951; French, 1944; Kaplan, 1972; Hass et al., 1992; Newby-Clark et al., 2002; Priester & Petty, 1996; Scott, 1969; Thompson et al., 1995). As noted earlier, however, more recent research on attitudinal ambivalence has documented multiple variables that lead people to express feeling more ambivalent in their attitudes than their relatively few reported conflicting reactions would otherwise predict. Such antecedents of increased ambivalence include thinking of liked others who hold different attitudes (Heider, 1958; Priester & Petty, 2001), imagining that unknown
but potentially counterattitudinal information exists (Priester, Petty, & Park, 2007), making a decision toward the attitude object at a relatively more immediate time (van Harreveld et al., 2009b), perceiving semantically inconsistent personality traits in others (Gebauer, Maio, & Pakizeh, 2013), or wanting to have a different attitude than one currently possesses (DeMarree et al., 2013).

In contrast, this article presents the first known evidence of an antecedent variable, expectancy confirmation, that predicts the extent to which people report feeling less ambivalent than an objective measure of ambivalence would normally predict. As opposed to showing that people are generally prone to feeling more ambivalent than would otherwise be predicted by their joint positive and negative reactions toward the object, these studies demonstrate that people are in fact capable of feeling less ambivalent than their conflicting valenced reactions to a mixed-valence object would predict in isolation. Thus, an interesting observation of the current studies is that reported valence consistency between positive and negative reactions toward an attitude object was less predictive of individuals’ feelings of ambivalence than was reported cognitive consistency between their expectations and their perceptions.

Thus, these findings are compatible with one of the fundamental observations of human cognition as researched by social psychologists: A persistent desire for consistency. By dint of the fact that positivity and negativity are essentially defined as oppositional to each other (Osgood et al., 1957; Priester & Petty, 1996), it makes sense that a person who associates an object with both positive and negative qualities would typically feel ambivalent about his or her attitude, regardless of its ultimate direction. If,
however, a person possesses an additional cognition that leads them to expect both positive and negative reactions in a specific context, then a mixed-valence object (versus a valence-consistent one) is ironically more consistent with his or her prior expectation of valence-inconsistency being associated with the object.

This observation is reminiscent of cognitive dissonance theory (Festinger, 1957), such that people often “add” cognitions in order to make sense of their seemingly contradictory cognitions and behaviors, such as by trivialization (Simon, Greenberg, & Brehm, 1995) or by changing one’s attitudes toward the object associated with dissonant cognitions (Aesop, 600 BCE/1894 CE; Brehm, 1956; Egan, Bloom, & Santos, 2010). It is also sensible to predict that individuals who vary in their dispositional tendency to prefer (or to be apathetic to) cognitive consistency (Cialdini et al., 1995; Newby-Clark et al., 2002) would vary not only in how they manage their thoughts when experiencing dissonance, but when they evaluate attitude objects associated with both positivity and negativity. More research in this area would further clarify our understanding of when people experience more or less attitudinal ambivalence, especially in attitudes toward objects that evoke both positive and negative reactions.

Future Directions

There remain several interesting questions to explore in future research. Perhaps the most pressing question to address is *why* expectancy confirmation (versus disconfirmation) in individuals’ perceptions, evaluations, and other social interactions specifically leads them to feel less ambivalent about these various judgments. As noted
above, perhaps the extent to which people desire cognitive consistency (Cialdini et al., 1995; Festinger, 1957) as an end to itself is sufficient to explain these consequences on ambivalence, as it would relate to other psychological outcomes such as feelings of discomfort (Elliot & Devine, 1994). On the other hand, another possible explanation for expectancy confirmation effects is that they involve varying degrees of arousal or surprise. As people experience greater disconfirmation of their prior expectations of an event, people tend to evaluate the ultimate experience of that event more extremely, and this has been explained by individuals’ reported feelings of feeling psychologically aroused (Cacioppo, Gardner, & Berntson, 1999) or surprised (Maguire, Maguire, & Keane, 2011; Mellers & Ritov, 2010; Meyer, Reisenzein, & Schützwohl, 1997). Conversely, then, if people are less surprised, they would make less extreme evaluations. Notably, however, this surprise did not influence the overall evaluation (attitude), but instead affected the degree of felt ambivalence.

Surprise is a potentially interesting candidate as a mechanism underlying the effect of expectancy disconfirmations on social judgments, because of its association with myriad important social outcomes. For instance, feeling more (versus less) surprised is linked to greater judgmental uncertainty (Maguire et al., 2011), differences in depth of information processing and attitude change (Petty, Fleming, Priester, & Feinstein, 2001), increased attributions of source trustworthiness in persuasion (Eagly, Wood, & Chaiken, 1978; Priester & Petty, 1995), specific social-emotional facial expressions (Ekman & Friesen, 1975), and slower response latencies during judgments (Reisenzein, 2000). If relative expectancy disconfirmation exerts its effects on attitudinal ambivalence through
the subjective emotional experience of surprise, then there exist multiple potential paths for future research on ambivalence to examine based on the association between surprise and these many outcomes.

These results also prompted a question about whether this pattern of effects could be reversed. Specifically, in Studies 2 and 3, a summary that would normally have served as an expectation was undermined by additional information, thereby eliminating its effect as an expectancy as shown by increased feelings of ambivalence in response to learning valence-inconsistent information about an attitude object. But could individuals be prompted to use the behavioral information to form an expectation of future valence-inconsistent information about the attitude object? Recall that, in Study 1, among participants who learned valence-inconsistent behaviors about Bob first, those who then went on to read a (mismatching) valence-consistent negative summary reported feeling *less* ambivalent about their attitudes toward Bob than did participants who read a (matching) valence-inconsistent summary. In this case, increasing the extent to which the information about Bob was valence-inconsistent (versus consistent) caused people to feel more ambivalent about their attitudes, which is compatible with the additive effect of valence-inconsistent information on ambivalence. But could people be prompted to form an expectation on the basis of valence-inconsistent behaviors? And, if so, would reading a valence-inconsistent (versus consistent) summary following the behaviors cause people to feel *less* ambivalent in their attitudes if this summary was expected? Studies following up on this line of reasoning would shed light on when people do or do not form meaningful expectations for inconsistent information, and how these expectations affect
individuals’ feelings of attitudinal ambivalence, psychological arousal, or general sense of surprise when learning about an attitude object.

Alternatively, the most direct next step might be to expand these findings from the situational to the dispositional. It seems plausible to hypothesize that individuals’ might meaningfully vary in their more chronic expectations for people, ideas, and other attitude objects to be associated with both positive and negative qualities. Such a measure of individual differences in so called “ambivalent expectations” would presumably be useful for predicting variations in how people form attitudes, engage in persuasion, and seek out and process relevant information. This index might also complement and expand on other scales related to individuals’ preference for consistency (Cialdini et al., 1995) and their need for cognitive closure (Webster & Kruglanski, 1994), for instance, while addressing more directly how people expect or prefer consistency about valenced information specifically. Dispositional (or situational) differences in the ability to contextualize or “chunk” valence-inconsistent information into meaningful categories (e.g., personal behaviors are positive, professional behaviors are negative) may be consistent with this idea as well, as would cultural differences like analytical versus holistic thinking styles (Choi, Koo, & Jong, 2007; Nisbett & Miyamoto, 2005), and variation in attitudes toward ambivalence itself as a good or bad aspect of evaluation and expression (Bell & Esses, 2002; Pillaud, Cavazza, & Butera, 2013).

Likewise, research on impression formation, person memory, and attributional asymmetry as dependent measures may be viable to re-examine on the basis of individuals’ expectations for valence inconsistency. For instance, if people learn about a
target who acts in an inconsistent manner (e.g., exhibiting both helpful and harmful behaviors toward others), might memory and attributions of the target be influenced by a prior designation of the trait “unpredictable” versus “predictable?” Moreover, how would expecting a target to behave “unpredictably” influence later memory and attributions if the information they learned was, in fact, painting a relatively predictable picture of the target? Despite decades of research on the factors that influence variations in memory and attributions of individuals’ traits and behaviors (Stangor & McMillan, 1992), the answers to these questions remain unknown. Wherever and whenever people experience evaluative tension—when forming impressions, when evaluating the self, or when interacting with groups—the findings presented here on the role of expectations may generate interesting theoretical questions in a wide array of diverse areas in social psychology.
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