Effects of Attitude Action Identification on Congruence Between Attitudes and Behavioral Intentions Toward Social Groups

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Attitude Representation Theory (ART) holds that attitude-relevant responses are informed by mental representations of the attitude object, which include the individual's actions toward that object. Action Identification Theory (AIT) holds that the same action can be identified at multiple levels. Individuals who identify their actions at lower levels have less flexibility in how they perform the action, and thus enact the action less consistently. An integration of ART and AIT suggested that individuals who spontaneously (Experiment 1) or through manipulation (Experiments 2 and 3) identify their attitude-relevant actions toward a social group at lower levels might display less attitude-intention congruence than would individuals who identify their attitude-relevant actions at higher levels. ART and AIT are discussed as having links with each other and with other theories of attitude and judgment processes.

Keywords: *action identification; attitude-behavior consistency; mental representations*

When do attitudes predict behaviors? Attitude Representation Theory (ART; Lord & Lepper, 1999) holds that attitude-relevant responses are informed by mental representations of the attitude object, which include associated exemplars, characteristics, emotions, contexts, and actions. An individual's attitude-relevant responses toward gay men, for instance, might be informed by accessible exemplars (e.g., RuPaul), characteristics (e.g., sensitive), emotions (e.g., surprise), contexts (e.g., discos), and actions (e.g., "ate with" or "support their cause"). Individuals may have available from memory a wide range of relevant associations for the group in question but the evaluative response of the moment is informed only by those aspects of the representation that are activated or accessible in the specific situation (Schwarz, Groves, & Schuman, 1998).

When completing a questionnaire regarding attitudes toward gay men, for instance, the situation would involve only the words *gay men.* With such an impoverished situation, the individual's evaluative response will rely almost entirely on whichever attitude-relevant associations or assumptions happen to be activated (Sia, Lord, Blessum, Thomas, & Lepper, 1999). When choosing how to behave toward an actual gay man in an actual setting (e.g., whether to invite a specific gay man to a party with one's friends), in contrast, individuals integrate their activated associations and assumptions about the category with their perceptions of the specific behavioral situation. According to ART (Lord & Lepper, 1999), the congruence between an individual's response on an attitude questionnaire and the individual's response in an actual behavioral situation depends on how well the various aspects of the actual behavioral situation match those aspects of the mental representation that the individual activated when completing the attitude questionnaire.

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Previous studies of ART have examined the consequences for attitude-behavior congruence of match between aspects of the mental representation that participants activated when they reported their attitudes and aspects of the behavioral situation. Lord, Lepper, and Mackie (1984, Study 2), for instance, had students report their attitudes toward gay men and list the characteristics that they attributed to gay men. One month later, as part of an "unrelated study," the same participants were asked to help a campus transfer student program through various supportive actions such as taking the student to classes, showing the student around campus, and inviting the student to a party.

One of the transfer students acknowledged being gay. A brief background sketch also depicted him as having characteristics that were either the same as or different from what the individual participant had listed when reporting his attitude. As predicted, participants' attitudes were congruent with their willingness to support a gay transfer student when the gay transfer student had characteristics that matched, rather than mismatched, what the participant had in mind, even though the two sets of characteristics were pretested as equally likable.

No previous study, though, has examined the consequences for attitude-behavior congruence of actions that individuals associate with their attitudes, as part of an attitude representation. Attitudes toward a social group might predict behavior toward a member of the group when the action involved in the behavioral measure matches the action or actions that the individual had in mind when he or she reported an overall attitude. One of the ways in which actions within an attitude representation might differ is in the level at which the individual identifies them. Eagly and Chaiken (1993), in a comprehensive review of research on attitude-behavior consistency, called attention to precisely this factor of how people interpret and label their own attitude-relevant actions.

> This attention to the varying ways that people construe their behavior, which Vallacher and Wegner have termed *action identities*, is consequential in relation to one of the issues neglected by the theories of the attitude-behavior relation that we have reviewed—namely, the level of abstraction at which people formulate their intentions and actions. (Eagly & Chaiken, 1993, p. 192)

Action Identification Theory (AIT; Vallacher & Wegner, 1985) is similar to ART (Lord & Lepper, 1999) in that it involves mental representations. According to AIT, individuals differ in how they represent their actions. Any action can be identified at multiple levels. The same action, for instance, might be identified at a lower level as "mopping the floor," at a medium level as "cleaning the house," and at a higher level as "getting ready for company." Higher level actions can be performed by doing a lower level action, but not vice versa. One gets ready for company by mopping the floor but one does not necessarily mop the floor by getting ready for company. Lower level identities specify how the action is performed, whereas higher level identities signify why or with what effect the action is performed. The difference between ART and AIT is that ART involves mental representations of attitude objects—one aspect of which consists of remembered actions toward the attitude object—whereas AIT involves mental representations of actions of all types—one subset of which consists of actions toward attitude objects. Both theories, however, invoke mental representations as explanatory constructs.

AIT (Vallacher & Wegner, 1985) is also similar to ART (Lord & Lepper, 1999) and other theories (e.g., Schwarz et al., 1998) in that each assumes a distinction between availability and accessibility. In AIT, individuals have available to them multiple ways to identify their actions. When mopping the floor, for example, people might know that they are also cleaning the house and getting ready for company. These and other possible identities are all available. According to AIT, however, at any given moment only one of these identities is accessible; the most accessible action identity of the moment has been termed the prepotent identity. Similarly, ART holds that individuals have available many cognitive associations with an attitude object but only a subset of these associations is accessible at any one moment.

Both theories suggest that an individual's immediate judgments and actions are informed by whichever aspect of the mental representation happens to be activated or accessible at a specific time. In AIT (Vallacher & Wegner, 1985), the prepotent action identity serves as a point of reference for continuing the action. People who identify their actions as getting ready for company, for instance, would move easily from mopping the floor to baking a cake, whereas people who use a lower level identity would transfer their actions less readily from one to another of the lower level actions necessary to prepare for company. Similarly, in ART (Lord & Lepper, 1999), people who temporarily activate a positive exemplar for an attitude object such as a social group are more likely to continue behaving positively toward that group than are people who temporarily activate a negative exemplar and would need to "shift gears" to do so (Sia, Lord, Blessum, Ratcliff, & Lepper, 1997).

In AIT, then, a person's working knowledge of an action involves a single, prepotent identity that the individual finds easy to bring to mind (Vallacher & Wegner, 1985). In general, people maintain action identities at the highest level for which the identity provides an effective understanding of what they are doing. Higher level identities are thus more likely than lower level identities

to become prepotent. With experience, in fact, actions are likely to become more automatic, to be performed more smoothly, and to require less attention and effort and thus to become routinely identified at a higher level (Vallacher & Wegner, 1985). It is only when performance is disrupted, for instance by the mop handle breaking, that individuals temporarily redefine well-practiced actions at lower levels.

Higher level action identities are generally advantageous because they allow flexibility. Using a mop is only one way of cleaning the house. Cleaning the house is only one way of preparing for company. People who maintain a higher level identity for their actions can usually substitute other ways of achieving the same effect. As Vallacher and Wegner (1985) noted, "planning involves knowing what one is doing in the broadest possible way and having the flexibility to accommodate changing circumstances and other factors that promote disruption" (p. 111). To the extent that higher level action identities "provide effective and integrated understanding of what one does, they should be associated with action that is temporally stable and cross-situationally consistent" (p. 207).

This link between higher level action identities and temporally stable, cross-situationally consistent behavior suggests that AIT (Vallacher & Wegner, 1985) offers an important theoretical extension of ART (Lord & Lepper, 1999). ART (Lord & Lepper, 1999) includes attitude-relevant actions as an undifferentiated aspect of the attitude object's representation, without explicitly recognizing that individuals might differ in the level at which they represent their own actions toward an attitude object. These differences in action identification level, however, might significantly affect the congruence between attitudes and behavioral intentions. Specifically, individuals who identify their actions toward an attitude object at lower levels might display less congruence between their attitudes and their behaviors or behavioral intentions than might individuals who identify their actions toward the same attitude object at higher levels.

The study most relevant to this hypothesis involved reactions to bogus personality feedback. Wegner, Vallacher, Kiersted, and Dizadji (1986, Experiment 2) asked college students to describe in general or specific terms five things they had done during a recent interaction with another person. Two raters coded each action into one of three levels (high, medium, low) of action identification. Their codes revealed that the manipulation had produced the desired effect. Participants in the specific condition listed lower level behaviors than did participants in the general condition, then all participants received bogus personality feedback that they were either very cooperative or very competitive. Participants who had identified their interpersonal actions at a lower level proved more accepting of bogus personality feedback than were participants who had identified their interpersonal actions at a higher level. Also, participants who had listed lower level actions were subsequently more likely to internalize the bogus descriptions of themselves by choosing behavioral intentions consistent with the feedback they had been given. Wegner and his colleagues (1986) explained that higher level action identification shields a person against the emergence of new identifications that would change the nature of subsequent action and is also "associated with action flexibility, so that in the face of potential disruptions different lower level 'means' can be substituted for one another" (Vallacher & Wegner, 1985, p. 207). This disrupt-then-reframe technique also has proven effective in altering the probability that individuals will support charitable organizations (Davis & Knowles, 1999).

Applying this reasoning to attitude-relevant actions, Experiment 1 was designed to test whether individual differences in action identification level might affect the congruence between reported attitudes and subsequent behavioral intentions. Would individuals who spontaneously recall and report attitude-relevant actions at a lower level also display less attitude-behavioral intention congruence? Experiment 2 was designed to test whether, as shown by Vallacher and Wegner (1985) for other types of actions, attitude-relevant action identification levels might be manipulated simply by asking individuals to recall their own actions at either lower or higher identification levels and whether such a manipulation might affect attitude-behavioral intention congruence. Finally, Experiment 3 was designed to test whether inducing higher level attitude action identities temporarily increases attitude-behavioral intention congruence or whether (as suggested by Vallacher & Wegner, 1985) inducing lower level attitude action identities temporarily disrupts and decreases attitude-behavior congruence.

EXPERIMENT 1

An initial study tested whether individuals who spontaneously identify their attitude-relevant actions toward a social group at a relatively low level would display less attitude-behavioral intention consistency than would individuals who spontaneously identify their attitude-relevant actions toward that group at a relatively high level.

Method

PARTICIPANTS

Eighty-seven college students (54 women, 33 men) participated for course credit. Gender had no main effects or interactions with the results to be reported.

PROCEDURE

The experiment consisted of two sessions. In the first session, following a procedure developed by Vallacher, Wegner, and colleagues (see Wegner et al., 1986) and very similar to free-response listing procedures used by Eagly, Mladinic, and Otto (1994) and by Esses, Haddock, and Zanna (1994), participants were asked to list five actions they had taken toward social groups: politicians, former substance abusers, and the target group—gay men. Students then rated the valence of each action and their attitudes toward each social group on 11-point scales from –5 (*very negative*) to +5 (*very positive*).

The participants also answered questions used in previous research to measure attitude strength, including how often they had thought about the social group, how well informed they were, how many social group members they had known personally, and how much experience they had with the social group (see Krosnick & Petty, 1995). Finally, participants answered two sets of questions similar to those that have been used in previous research to measure attitudinal ambivalence (Armitage & Conner, 2000; Thompson, Zanna, & Griffin, 1995). First, they indicated how many positive and how many negative actions they had taken toward each social group in the past year and then how many actions of each type they had ever taken.

In the second session 1 week later, portrayed as an unrelated study by a different experimenter, the same participants read interview notes of two male candidates who had applied to work in the psychology department. They supposedly read the interview notes to help the psychology department in hiring a new student worker from several applicants who were transferring to campus and who were anxious to meet and interact with as many students as possible. To make the task seem important to them, participants were told that the successful applicant would frequently interact with students such as themselves. In the interview notes, the applicants' responses included answers to questions concerning how they learned of the position, what experience they had, what their schedule was like, their plans for the future, what set them apart from other applicants, and what topic they were willing to write for an essay. One of the applicants noted that he was gay but always presented himself in a professional manner. For an essay, he chose the title, "Why gay men should have equal rights."

After reading the application materials, participants reported their willingness to interact with each applicant in each of nine ways (invite him over to my house, be seen in public with him, eat a meal with him, go to a party with him, study with him, introduce him to their parents, spend time with him, talk to him, hang out with him). Each behavior was rated on a scale from 1 (*not at all willing*) to 9 (*very willing*). These nine behavioral intentions, which participants were told they might have to perform if they expressed willingness, served as the dependent measures. Finally, students completed questions that probed for knowledge or suspicions about the purpose of the experiment and were then debriefed. No student guessed the experimental hypotheses.

Results and Discussion

Following the coding procedure described by Wegner and colleagues (1986), two of the authors independently coded all the actions that students had reported taking toward gay men into three levels—higher (3), medium (2), and lower (1). Nonactions such as "they're cool" or "disgusting" were not coded. Example actions that both raters coded as higher level included "avoid them" and "be friendly to them." Example actions that both raters coded as lower level included "kicked one off my property last summer" and "went to a disco to see my gay friend perform." Interrater agreement was .91. As in Vallacher and Wegner's (1985) research, the two raters conferred and resolved the few discrepancies. Their agreed code levels were then used for all analyses.

The first step in the analysis was to determine whether participants were reasonably consistent in the level of the actions that they listed. Although the instructions requested that participants list five actions, not all participants did so. Some listed fewer than five and some listed some items that were not actions. Sixty-nine of the participants, however, listed at least three items that were clearly actions. When the action level codes for the first three actions were subjected to a principal components analysis, they loaded .778, .670, and .601 on one factor that explained 47.14% of the variance.

Based on this indicator of internal consistency for identification level within each participant's listed actions, each participant's action codes were averaged to form an index of action identification level, which could range from 1 (*lowest level*) to 3 (*highest level*). Mean action identification level for the 87 participants was 2.39 (SD = 0.25). Action identification level, initial attitude, and their interaction were used as predictors of behavioral intentions in separate regression analyses for each of the nine behaviors in addition to the total combined behaviors. For each of the nine measures, Table 1 shows, on the lines labeled "Attitude" and "Action Identification," the beta weights when these two variables were used as predictors of that particular behavioral intention, in addition to (on the Action Identification line) the R^2, F for a model that included only those predictors, and F for the change from one model to the next. The central hypothesis was that the interaction between attitude and action identification level, when it was added to the model as a third predictor, would predict participants' behavioral intentions better than would the two predictors alone.

TABLE 1: Regression Analyses (Experiment 1)

Behavioral Intention	*Predictors*	*Beta*	R^2	*Model* F	F *Change*
Invite over to my home	Attitude	.186			
	Action identification	.073	.040	1.74	
	Interaction	.605	.202	7.02**	16.91**
Be seen in public with	Attitude	.290			
	Action identification	.058	.880	4.03*	
	Interaction	.703	.307	12.26**	26.28**
Eat a meal with	Attitude	.238			
	Action identification	.112	.069	3.12	
	Interaction	.705	.290	11.29**	25.78**
Go to a party with	Attitude	.201			
	Action identification	.139	.060	2.66	
	Interaction	.588	.213	7.48**	16.17**
Study with	Attitude	.199			
	Action identification	.111	.052	2.29	
	Interaction	.681	.258	9.60**	22.99**
Introduce to parents	Attitude	.254			
	Action identification	.005	.064	2.86	
	Interaction	.558	.202	6.91**	14.11**
Spend time with	Attitude	.267			
	Action identification	.046	.073	3.32*	
	Interaction	.594	.230	8.25**	16.86**
Talk to	Attitude	.226			
	Action identification	.047	.053	2.35	
	Interaction	.721	.284	10.96**	26.73**
Hang out with	Attitude	.180			
	Action identification	.044	.034	1.49	
	Interaction	.716	.512	9.84**	25.63**
Combined behaviors	Attitude	.241			
	Action identification	.071	.063	2.82	
	Interaction	.699	.529	10.74**	24.97**

NOTE: Model *df* for the main-effects model (2, 84); for interaction model (3, 83); for change (1, 82). All Beta coefficients are standardized.
*$p < .05$. **$p < .001$.

Controlling for main effects of attitude and action identification level, the higher the identification level of their listed actions, the more willing participants with positive attitudes would be to perform the behavior and the less willing participants with negative attitudes would be to perform the behavior. The third line for each behavior, therefore, shows the beta weight for the interaction when it was added to the regression model, the R^2 and F for the interaction model, and the F for the change in R^2 from the main-effects model, which included only attitude and action identification level, to the interaction model that also included the interaction term (Cohen, Cohen, West, & Aiken, 2003).

As can be seen in Table 1, the interaction term was significant and significantly improved the prediction of behavioral intention in all nine regression analyses. In addition, each participant's nine behavioral intention ratings were averaged to form an index of willingness to perform the entire set of positive behaviors toward a gay man. As the last set of three lines in Table 1 shows, the interaction term was significant for the combined behaviors as well, $F(3, 83) = 10.74$, $p < .001$. A simple slopes analysis was used to decompose the Attitude × Action Identification Level interaction for the combined behaviors (Aiken & West, 1991). For attitudes, we computed the slope of the combined behaviors score at three levels of action identification. Thus, we examined combined behaviors at 1 standard deviation toward the lower level, at the mean level of action identification, and 1 standard deviation toward the higher level. As predicted, there was greater prediction from attitude toward gay men for the combined behavioral intention score at higher levels of action identification ($\beta = .853$, $p < .001$) than at moderate levels ($\beta = .254$, $p < .001$) or at lower levels ($\beta = -.345$, $p < .001$).

Such strong and consistent results, however, raise suspicions that these participants may have differed in more ways than merely identifying their attitude-relevant actions at different levels. One possibility is that individuals who listed higher level actions had stronger attitudes than participants who listed lower level actions. Attitude strength is a thoroughly researched moderator of attitude-behavior consistency (Krosnick & Petty, 1995). One method to test this alternative explanation was to take

attitude extremity as an indicator of strength. Strongly held attitudes are known to deviate from the neutral point on an attitude scale by more than do weakly held attitudes (Abelson, 1995). When absolute initial attitudes toward gay men were added to the regression model for the combined behaviors, and thus controlled statistically, the Attitude × Action Identification Level interaction for the combined behaviors remained significant, $F(4, 82) = 7.98$, $p < .001$. The primary result of Experiment 1, then, could not be explained by initial differences between the two groups in attitude extremity—a proxy for attitude strength.

Another method of ruling out attitude strength as the actual source of differences between the groups was to use the questions that participants had answered on the initial attitude questionnaire about how often they had thought about gay men, how well informed they were about gay men, how many gay men they had known personally, and how much experience they had with gay men compared to the average person. These questions were included because they address aspects of attitude strength other than extremity—aspects such as knowledge and experience (Krosnick & Petty, 1995). The four relevant questions all loaded at .741 or more in a principal components analysis so they were averaged into an index of attitude strength that was then added to the regression model. Again, the interaction between attitude and action identification level for the combined behaviors remained significant, $F(4, 82) = 9.27$, $p < .001$. By this measure as well, initial differences between the groups in attitude strength could not account for the observed interaction between attitude and action identification level.

Another possibility was that the observed differences might be attributed to differences in attitudinal ambivalence (Armitage & Conner, 2000). Individuals who identified their attitude-relevant actions at a higher level also might have perceived little conflict between their positive actions and their negative actions, whereas individuals who identified their attitude-relevant actions at a lower level might have listed actions that were comparatively dissonant in valence. This difference in the ambivalence of actions might have produced the present results (Maio, Bell, & Esses, 1996). Such a finding would argue that participants who identified their actions at different levels actually differed in the actions that they had taken, rather than, as AIT (Vallacher & Wegner, 1985) maintains, in the way they identified those actions. The ambivalence of participants' actions was computed by $((P+N)/2) - P - N$, where P is valence of positive actions and N is valence of negative actions (see Armitage & Conner, 2000). When attitudinal ambivalence was added to the regression model, the Attitude × Action Identification Level interaction for the combined behaviors remained significant, $F(4, 82) = 8.01$, $p < .001$.

Yet another possibility was that participants may have differed in how many of the actions they associated with gay men. Those who listed relatively few actions may have also identified these actions at lower levels than those who listed relatively many actions, thus generating the central result as an artifact of individual differences in ability or motivation to comply with the instructions. When the number of actions that each participant listed was added to the regression model, however, the Attitude × Action Identification Level interaction for the combined behaviors remained significant, $F(4, 82) = 8.17$, $p < .001$.

Finally, we also tested the possibility that the actions that participants listed had differed in the valence that participants assigned to each action. Several aspects of action valence were considered. One aspect involved a participant's average valence rating across actions. A second aspect involved each participant's most extreme valence rating. A third aspect involved the variance of each participant's valence ratings. Across all these aspects, when action valence was added to the regression model for the combined behaviors, the Attitude × Action Identification Level interaction for the combined behaviors remained significant, Fs = 8.21, 8.04, and 7.97, all ps < .001.

Several relevant measures, then, were included in the present experiment to test alternative explanations of the results. Participants who spontaneously identified their attitude-relevant actions at a lower level were less likely than those who identified their actions at a higher level to report behavioral intentions congruent with their reported attitudes. They might have done so only because they differed in attitude strength, attitudinal ambivalence, number of actions listed, valence of actions listed, valence extremity, or valence variance. When differences on these conceptually relevant variables were statistically controlled, however, the interaction between attitudes and action identification level remained highly significant. Even so, Experiment 1 could not possibly have included the huge number of personality and other differences that could have accounted for the observed results had they only been measured.

Experiment 1 may have provided valuable information about the postulated relationship between action identification and attitude-behavior congruence but a correlational study cannot provide evidence concerning causation. According to AIT (Vallacher & Wegner, 1985), the process of identifying one's actions at higher or lower levels causes differences in how consistently those actions are subsequently performed. To provide evidence beyond a significant relationship between

spontaneous action identifications and attitude-intention consistency, one would need to manipulate action identification level and then measure the effects of the manipulation on subsequent behavioral intentions. Experiment 2, therefore, took an experimental rather than correlational approach.

EXPERIMENT 2

Action identities are susceptible to many contextual factors, some of them very subtle (Wegner & Vallacher, 1986). To maximize chances for a successful manipulation in testing the effect of action identification on attitude-behavioral intention congruence, however, it seemed advisable to use direct examples and instructions. Thus, consistent with previously published research (Wegner et al., 1986), participants in Experiment 2 were simply told to identify their attitude-relevant actions at either higher or lower levels.

Method

PARTICIPANTS

One hundred twelve college students participated in a two-session study for course credit.

PROCEDURE

Following a procedure described by Wegner and colleagues (1986), student participants were randomly assigned to conditions designed to elicit either higher level or lower level identifications of actions they had taken toward politicians, lawyers, lesbians, and gay men. Lesbians and gay men were the target groups of interest—lesbians for female participants and gay men for male participants. For the 56 participants in the higher level condition, the instructions gave examples of how another person had used higher level past identifications of actions he or she had taken toward rock stars (e.g., "because I like rock stars, in general I tend to pay attention to them") and toward journalists (e.g., "because I dislike journalists, in general I tend to attack them"). The participants then received a list that had not just blank lines, as in Experiment 1, but also a leading phrase before each of four blank lines for each social group. All four leading phrases said "Because I (like/dislike) politicians, in general I tend to_____." On each line, student participants were told to circle "like" or "dislike" and to fill in the blank with an action they had taken.

For the 56 participants in the lower level condition, in contrast, the instructions gave examples of how another person had used lower level identifications of actions he or she had taken toward rock stars (e.g., "because I like rock stars, on one specific occasion I read a book about Kurt Cobain") and toward journalists (e.g., "because I dislike journalists, on one specific occasion I wrote a letter to the editor criticizing a writer"). The participants then received a list that had a leading phrase before each of four blank lines for each social group. All four leading phrases said "Because I (like/dislike) politicians, on one specific occasion I _____." On each line, student participants were told to circle "like" or "dislike" and to fill in the blank with an action they had taken.

After listing their actions toward each social group, students reported their attitudes toward that group on 11-point scales from –5 (*very negative*) to +5 (*very positive*). The second experimenter then entered and asked students to complete some materials. As in Experiment 1, the experimenter explained that the Psi Chi organization had been asked by the psychology department to help hire a new receptionist to work in the psychology office—a transfer student who wanted to meet local students. Participants then completed the same materials as in Experiment 1, with the exception that "introduce to parents" was omitted from the behavioral measures and the interview notes were ordered so that the target applicant came first and explicitly acknowledged being a lesbian (for female participants) or gay man (for male participants). Finally, students were probed for any suspicions and were debriefed. No participant was able to guess the experimental hypothesis.

Results and Discussion

The level of actions that the participants wrote about gay men or lesbians served as a manipulation check for Experiment 2. Each action was independently coded as to its identification level by two raters, with interrater agreement of .87. The raters then resolved their discrepancies and arrived at one code for each action. Using these agreed codes, each participant's action identification level, averaged across the four listed actions, was subjected to a one-way ANOVA that revealed a significant main effect of induced action identification, $F(1, 110) = 222.11$, $p < .001$. Participants who were induced to identify their actions at a higher level wrote actions that the raters coded as being at a higher level ($M = 2.69$, $SD = .31$) than did participants who were induced to identify their actions at a lower level ($M = 1.69$, $SD = .39$). Participants in the two conditions did not, however, differ in the number of actions they listed (Ms = 3.71 higher level vs. 3.36 lower level), $F(1, 110) = .177$, *ns*.

To determine whether these induced differences in identifying actions at a higher or lower level affected the consistency with which participants expressed their attitudes in measures of behavioral intent, scores for the behaviors and attitudes were both transformed into z scores. The absolute differences between the standardized scores were analyzed in a MANOVA that used the eight behaviors as the dependent measures. Although the overall effect of action identification was not signifi-

TABLE 2: Mean Absolute Attitude-Behavioral Intention Differences for Students Who Were Induced to Identify Their Attitude-Relevant Actions at Higher or Lower Levels (Experiment 2)

	Higher Level Actions (N = 56)	*Lower-Level Actions* (N = 56)
Behavioral intentions		
Invite over to my house	.70	.83
Be seen in public with	.61	.89***
Eat a meal with	.66	.90**
Go to a party with	.66	.85*
Study with	.75	.91
Spend time with	.66	.81
Talk to	.79	.99*
Hang out with	.70	.81
Combined behaviors	.69	.87**

NOTE: Asterisks indicate difference between conditions.
*$p < .10$. **$p < .05$. ***$p < .01$.

cant, $F(8, 109) = 1.22$, *ns*, all of the means were in the predicted direction. Moreover, as shown in Table 2, the univariate effects were significant ($p < .05$) for two of the behaviors and marginally significant ($p < .10$) for two others.

More important, for the combined behaviors difference score, shown in the bottom row of Table 2, participants who were induced to identify their attitude-relevant actions at a lower level displayed significantly less attitude-behavior congruence (*M* discrepancy = .87) than did participants who were induced to identify their attitude-relevant actions at a higher level (*M* discrepancy = .69), $F(1, 110) = 4.22$, $p < .05$. The effect of action identification level remained significant when number of listed actions was included as a covariate in an analysis of covariance (ANCOVA), $F(1, 109) = 4.44$, $p < .05$.[1] Experiment 2 thus provided experimental support for the correlational results of Experiment 1. Participants who were induced to identify their attitude-relevant actions at a lower level displayed less attitude-behavioral intention congruence than did participants who were induced to identify their attitude-relevant actions at a higher level.

AIT (Vallacher & Wegner, 1985) suggests that instructions to list lower level action identities temporarily disrupted attitude-behavioral intention congruence rather than that instructions to list higher level action identities temporarily increased congruence. Because Experiment 2 had no control group that received neither higher level nor lower level instructions, the results could not address this theoretically important distinction. Experiment 3, therefore, was designed to test whether lower level action identities disrupted or higher level action identities improved attitude-behavioral intention congruence.

EXPERIMENT 3

By including a no instruction control group, Experiment 3 also addressed questions about how the manipulation worked. Vallacher and Wegner (1985) maintained that individuals tend to gravitate toward the highest level of action identification at which they can operate effectively. They maintain the higher level action identification unless they are somehow induced (either by temporary performance disruption or by explicit instructions) to use a lower level of action identification. Thus, the principles of AIT (Vallacher & Wegner, 1985, 1987) imply that except for very difficult actions that require constant attention to detail, higher level action identification would constitute the rule and lower level action identification would constitute the exception.

Finally, Experiment 3 tested whether the results of Experiments 1 and 2 might have depended on the order of measurement within the procedure. In both of these experiments, participants listed their attitude-relevant actions prior to reporting their attitudes. Although several theories suggest that individuals arrive at attitude reports by considering their own past actions toward the attitude object (e.g., Ajzen & Fishbein, 1980; Bem, 1972; Festinger, 1957; Tourangeau & Rasinski, 1988), one might argue that this is not the typical procedure in studies of attitude-behavior consistency, where participants are simply asked to report their attitudes without any preliminary questions that might set a particular context and subtly alter the attitude reports (Schwarz et al., 1998). According to AIT (Vallacher & Wegner, 1985) and ART (Lord & Lepper, 1999), however, measurement order should make little difference. In Experiment 3, therefore, order of listing actions and attitudes was varied and included in the design as a factor that was not expected to interact with effects of the action identity manipulation.

Experiment 3 was thus almost identical to Experiment 2 except that it included a control group essential to interpret the results of Experiments 1 and 2. The procedure also counterbalanced order of the attitude and action questions.

Method

PARTICIPANTS

One hundred ninety college women participated in a two-session study for course credit. Women were used because they were more readily available as participants and because neither of the previous experiments had detected gender differences or interactions with gender.

PROCEDURE

Students were randomly assigned to one of three conditions. In all three conditions, participants reported their attitudes and actions toward several social catego-

ries, the target one of which was lesbians. The higher level condition ($N = 64$) and the lower level condition ($N = 64$) involved the same experimental manipulations of attitude action identification level as in Experiment 2. The no instructions control condition ($N = 62$) allowed participants to list actions without any examples or special instructions, as in Experiment 1. In addition, 37 of the women in the higher level condition, 39 in the lower level condition, and 28 in the control condition listed their actions before reporting their attitudes (as in Experiments 1 and 2), whereas the others listed their actions after.

Then a second experimenter, posing as a Psi Chi member, explained that the Psi Chi organization had been asked by the psychology department to help hire a new receptionist to work in the psychology office—a transfer student who wanted to get acquainted with students in advance. Participants then completed the same materials as in Experiment 2 except that "commute to school with" was added to the behavioral measures and the first target applicant was always a lesbian. Finally, students completed a series of questions designed to detect suspicion. No participant was able to guess the experimental hypothesis.

Results and Discussion

The identification level at which women participants wrote about their actions toward lesbians served as a manipulation check. Each action was independently coded as to identification level by two raters, with interrater agreement of .89. Using the average of the raters' codes, each participant's action identification level, averaged across the listed actions, was subjected to a one-way ANOVA that revealed a significant main effect of induced level, $F(2, 187) = 31.93$, $p < .001$. By Tukey's test ($p < .01$), participants who were induced to identify their actions at a lower level wrote actions that the raters coded as being at a lower level ($M = 1.62$, $SD = .42$) than did participants who were induced to identify their actions at a higher level ($M = 2.20$, $SD = .48$) or participants who were given no special instructions ($M = 2.20$, $SD = .50$). The latter two conditions did not differ.[2]

According to this manipulation check, then, participants in the control condition were already identifying their attitudes at a level as high as was used by participants who were explicitly instructed to identify their actions at a higher level. These results support Vallacher and Wegner's (1985) contention that individuals tend to maintain their action identities at as high a level as they can. Participants in the present study were presumably able to maintain their attitude action identities at a relatively high level unless they were given explicit instructions to use a lower level, which disrupted their usual tendencies. According to AIT (Vallacher & Wegner, 1987), this disruption in participants' usual level of action identification should have decreased the consistency with which they behaved.

Absolute differences between the standardized attitudes and behavioral intention scores were analyzed as a measure of attitude-behavioral intention congruence. The relevant analysis involved a 3 (induced level) × 2 (measurement order: attitudes listed before or after actions) MANOVA, using the nine behaviors as dependent measures. Measurement order showed no main effect, overall $F(9, 174) = .81$, *ns*, and no interaction with induced level, overall $F(18, 350) = .94$, *ns*. Regardless of whether action identities were induced before or after the attitude report, they presumably remained salient until the next behavioral opportunity that involved the same attitude object. All further analyses, therefore, collapsed across measurement order.

As shown in Table 3, individuals who were induced to identify their attitude-relevant actions at lower levels displayed less attitude-behavior congruency (larger discrepancy scores) than did either individuals who were induced to identify their attitude-relevant actions at higher levels or individuals who were given no special instructions, overall $F(18, 360) = 2.14$, $p < .01$. Attitude-behavioral intention discrepancy scores were larger with lower level instructions than in the other two conditions for eight of the nine behaviors. By Dunnett's test, this pattern, with the lower level condition but not the higher level condition differing from the control condition, was either significant or marginally significant for six of the nine behaviors.

For the combined behaviors difference score shown on the bottom row of Table 3, the effect of induced action identification level was significant, $F(2, 186) = 3.53$, $p < .05$.[3] By Dunnett's test, participants who were induced to identify their attitude-relevant actions at a lower level displayed significantly less attitude-behavioral intention congruence ($M_{\text{discrepancy}} = .92$, $SD = .50$) than did participants in the control condition ($M = .73$, $SD = .43$), whereas participants who were induced to identify their attitude-relevant actions at a higher level ($M = .75$, $SD = .45$) did not differ from the control condition. This effect of action identification level remained significant when number of actions listed was included as a covariate in an ANCOVA, $F(2, 185) = 3.51$, $p < .05$. Experiment 3 thus extended the results of Experiment 2 by adding the important information that inducing participants to identify their attitude-relevant actions at a higher level changed neither the level of actions that they listed nor their attitude-behavioral intention congruence, relative to a control group given no instructions. Instead, inducing participants to identify their attitude-relevant actions at a lower level decreased the level of actions that they listed and significantly dis-

TABLE 3: Mean Absolute Attitude-Behavioral Intention Differences for Students Who Were Induced to Identify Their Attitude-Relevant Actions at Higher or Lower Levels (Experiment 3)

	No Instructions (N = 62)	*Higher-Level Actions (N = 64)*	*Lower-Level Actions (N = 64)*
Behavioral intentions			
Invite over to my house	.65	.70	.88*
Be seen in public with	.80	.67	.89
Eat a meal with	.70	.74	.94**
Go to a party with	.60	.71	.98***
Study with	.73	.80	.94*
Spend time with	.58	.73	.78*
Talk to	1.00	.86	.89
Hang out with	.65	.75	.91**
Commute with	.91	.75	1.05
Combined behaviors	.73	.75	.92**

NOTE: Asterisks indicate means marginally or significantly different from the control (no instructions) condition by Dunnett's test.
*$p < .10$. **$p < .05$. ***$p < .01$.

rupted attitude-behavioral intention congruence. These results exactly matched theoretical predictions derived from AIT (Vallacher & Wegner, 1985, 1987).

GENERAL DISCUSSION

In Experiment 1, participants who associated lower level actions with their attitudes toward gay men were subsequently less likely than those who associated higher level actions with their attitudes to report behavioral intentions congruent with their attitudes. In the next two experiments, participants' behavioral intentions were less congruent with their earlier reported attitudes if they were induced to identify their attitude-relevant actions at a lower rather than higher level (Experiment 2) or with no instructions (Experiment 3). It is important to note that participants very seldom listed actions that could be construed as the exact actions required by the specific behavioral scenario that they subsequently encountered in these experiments. It is also important to note that the specific behaviors used as the dependent measures were worded so as to represent a range of action identification levels, from "go to a party with" to "be seen in public with." Thus, the results did not fit a specificity-matching pattern (Ajzen & Fishbein, 1980) as much as a disruption pattern (Davis & Knowles, 1999; Vallacher & Wegner, 1987), in which lower level action identifications disrupted the predictive utility of attitudes regardless of the level at which most people would describe the behaviors.

The results of these experiments thus provided convergent evidence, from both correlational and experimental approaches, that identifying one's attitude-relevant actions at a lower level can disrupt the congruence between attitudes and behavioral intentions. The results also suggest a theoretical integration that involves ART (Lord & Lepper, 1999), AIT (Vallacher & Wegner, 1987), and several other lines of research on attitude and judgment processes. Such an integration might involve at least three broad constructs: salience, experience, and ability.

Salience

Temporary salience of aspects within a mental representation plays an important role in ART (Lord & Lepper, 1999), AIT (Vallacher & Wegner, 1985), and in other attitude theories (e.g., McGuire & McGuire, 1996; Tesser, 1978). In ART, for instance, evaluative responses to an attitude object "rely heavily on exemplars that are activated from a representation of the attitude object" (Lord & Lepper, 1999, p. 276). Thus, when individuals have recently thought about their attitudes toward a group (e.g., politicians) they become more likely to perceive group exemplars in ambiguous stimuli (e.g., complete BUS_ as BUSH) and also answer questions about group exemplars faster (Sia et al., 1999). Also, attitudes toward social groups change to reflect recently activated positive or negative exemplars (Sia et al., 1997). Finally, individuals who activate the same exemplar for a social group over time have more stable attitudes than do individuals who activate different exemplars (Sia et al., 1997). Attitude representations might remain stable, and yet an individual might display different evaluative responses from one time to the next, merely because different aspects of the attitude representation have become temporarily salient.

Temporary salience also plays an important role in AIT (Vallacher & Wegner, 1985), where each individual develops a unique identity structure to represent his or her actions. These identity structures are hierarchical, from higher level identities to lower level identities. Only one identity, however, is prepotent at any one time, and that prepotent identity can change from one moment to the next. "Over the course of just a few minutes, then, the person's prepotent identity for the action could change many times" (Vallacher & Wegner, 1985, p. 53). When people who are performing an action that they identify at a higher level unexpectedly encounter difficulties, for instance, those difficulties can render a lower level identity temporarily more salient (Vallacher & Wegner, 1987). To complicate matters, actions also can be identified differently depending on aspects of the context that are salient at the time the action is performed versus subsequently when the action is recalled (Vallacher & Wegner, 1985). AIT might thus be characterized as plac-

ing at least as much importance as does ART on temporary salience within mental representations.

These two theories (ART and AIT) are far from alone in emphasizing temporary salience (see Eagly & Chaiken, 1993). Considerable research on context effects has shown that attitude reports and other types of judgments can vary from one time to the next depending on which aspects of the specific context happen to be salient (Schwarz & Bless, 1992; Schwarz et al., 1998). A comprehensive program of research on attitude introspection (Wilson, Dunn, Kraft, & Lisle, 1989) has established that "people often have a large, conflicting 'database' relevant to their attitudes on any given topic, and the attitude they have at any given time depends on the subset of these data to which they attend" (Wilson & Hodges, 1992, p. 38). When people stop to think about the reasons why they hold their attitudes, just as when people stop to think about what they are doing (Vallacher & Wegner, 1985), they often change their minds. Their beliefs, for instance, might momentarily assume greater importance than their feelings, and so they might make different judgments (Millar & Tesser, 1992). These effects of introspection are significantly reduced for experts on the attitude topic (Maio & Olson, 2000; Wilson et al., 1989), which is directly relevant to the following discussion of experience.

Experience

ART (Lord & Lepper, 1999), AIT (Vallacher & Wegner, 1985), and other theories also involve differences in mental representations that are attributable to experience. Indeed, individuals who have known many members of a social group act equally in line with their reported attitudes whether the specific group member in question is considered typical or atypical (Lord, Desforges, Ramsey, Trezza, & Lepper, 1991). Individuals who have known only one or no members of the group, in contrast, display their attitudes in actions that they take toward a typical member but not toward an atypical member. Increasing experience with the group presumably renders the mental representation of the group more accurate and more inclusive. Individuals who have known many gay men, for instance, realize that they constitute a varied group. They do not have to see a gay man dressed in drag before they display their attitudes (Gilovich, 1981).

In AIT (Vallacher & Wegner, 1985, 1987) as well, experience changes mental representations. When individuals first attempt a complex action, lower level action identifications are necessarily prepotent. Lacking experience, individuals must focus on the nuts and bolts of how the action is performed. As these lower level actions become mastered, individuals can begin to integrate them into larger action units that they identify at higher levels. Thus, higher level action identities emerge from lower level action identities. At that point, the higher level identity maintains the action in such a way that new lower level actions might emerge in the service of the higher level identity. As researchers gain experience, for instance, they might recognize the importance of writing well to their higher level identity of "pursuing my career," which might in turn generate lower level actions such as studying a text on effective essays. In AIT, then, experience can forge identities from actions, and actions from identities.

Experience plays a key role as well in many theories of attitudes, attitude processes, and judgment (Strack, 1992). Attitude researchers have long recognized that attitudes formed on the basis of direct experience predict behavior better than attitudes formed on the basis of indirect or vicarious experience (Fazio & Zanna, 1981). Attitudes that are based on personal experience or that have been frequently considered are likely to become more accessible (Fazio, 1990) and resist change (Ross, McFarland, Conway, & Zanna, 1983). Eventually, they come to involve practiced scripts (Schank & Abelson, 1977), schemas (Fiske & Taylor, 1991), and habits (Ouellette & Wood, 1998). Finally, attitudes that are based on considerable experience come to assume greater relevance to a wide variety of behavioral opportunities (Snyder, 1982).

According to the principle of relevance (Snyder, 1982), one should not expect attitudes to be congruent with behaviors that an individual perceives as having no relevance to the attitude object. Similarly, one should not expect attitudes to be congruent with behavior unless the attitude is regarded as having implications for the behavior (Lord, 1982; Salancik, 1982). Individuals who perceive having lunch with a gay man as relevant to their attitude but being in a study group with a gay man as irrelevant, for instance, would display greater attitude-behavioral intention consistency in the former than in the latter situation. Individuals who perceive both situations as opportunities to approach versus avoid gay men, in contrast, would regard both behaviors as relevant to their attitudes, so their overall attitude-behavioral intention consistency would be greater.

The empirical relationship between attitudes and behaviors is known to be approximately .40 (Wallace, Paulson, Lord, & Bond, 2003), which is considered a moderate effect size (Cohen et al., 2003). Whether .40 is encouraging or disappointing, however, depends on one's expectations. From the present perspective, the typical correlation might be as "low" as it is because experimenters often measure behavior in unusual situations that disrupt the ways in which people usually think about their actions toward the attitude object. Conversely, the typical correlation might be as "high" as it is

because the prepotent action identity for the types of topics used in many studies (e.g., racial and ethnic stereotypes, jobs, using alcohol) is chronically at a high enough level as to accommodate the often artificial laboratory situations that experimenters invent.

Ability

ART (Lord & Lepper, 1999), AIT (Vallacher & Wegner, 1985), and other theories also suggest possible gains from considering attitudes as involving abilities. Experience often leads to expertise, which in turn influences attitude-behavioral intention consistency. Experts, for instance, know that members of a social category come in all shapes and sizes so they display their attitudes even in situations where novices would not (Lord et al., 1991). This ability to display attitudes in all types of contexts is not, however, necessarily desirable. It appears to involve excessive reliance on heuristics. In a relevant study, participants who were placed under cognitive load seemed unable to discriminate behaviorally between two attitude targets, one of whom was typical and clearly deserved to be treated in line with their positive or negative attitudes and one of whom was atypical and clearly did not (Blessum, Lord, & Sia, 1998). It is hard to imagine individuals who display greater attitude-behavior consistency than racial bigots, who have the unfortunate "ability" to treat all members of a negatively stigmatized group the same.

Similarly, AIT (Vallacher & Wegner, 1985) emphasizes the benefits and possible pitfalls of mastering actions. Individuals who have sufficient experience in acting toward an attitude object might start seeing each specific behavioral situation as a way to express their overall evaluation. This is exactly what Vallacher and Wegner (1987) have shown occurs with actions of all types. With experience, actions become less difficult to perform. Actions tend to be identified at a more general rather than specific level when they are easy, familiar, and simple for the individual to perform because "as one gains familiarity with an action's lower level components, these components become integrated or 'chunked' into larger action units, and it is these larger units that become the basis for conscious control of the action" (Vallacher & Wegner, 1987, p. 7). For many purposes, ability at expressing an attitude is an excellent goal. For some "experts," however, such as alcoholics who are extremely skilled at finding alternative ways to express their higher level action identities, ability at performing an action can be more a curse than a blessing (Vallacher & Wegner, 1985).

Ability also plays a part in other important theories. Eagly and Chaiken (1993) urged "investigators of attitudes toward behaviors to regard people as striving for goals and thinking in terms of sequences of goal-oriented behaviors" (p. 215). Doing so might entail adapting earlier attitude measurement techniques such as Bogardus's (1925) social distance scales and Guttman (1944) scales that regard attitude actions as cumulative and thus as forming a hierarchy similar to the hierarchy in AIT (Vallacher & Wegner, 1985). In such measurement techniques, an individual's attitude is expressed not by the mean positive or negative action that he or she is willing to take but rather by the most extreme attitude-relevant action of which he or she feels capable. Investigating attitudes as abilities also might involve greater attention to the functions that attitudes serve (Katz, 1960; Maio & Olson, 2000) and to perceptions of control (Ajzen, 1985).

Concluding Comments

To summarize, ART (Lord & Lepper, 1999) holds that individuals arrive at an evaluative response by reference to aspects of their cognitive representation for the attitude object. That representation includes, among other components, activated associations of the attitude object with their own past behaviors toward that object. Just as in other well-known attitude theories such as cognitive dissonance theory (Festinger, 1957) and self-perception theory (Bem, 1972), ART (Lord & Lepper, 1999) maintains that individuals assess their current attitudes in part by reference to the actions they have taken toward the attitude object in the past, especially those that are most salient at the moment.

AIT (Vallacher & Wegner, 1987; Wegner & Vallacher, 1986), however, reminds us that individuals who take the same actions can label or identify them in different ways, somewhere in a hierarchy from a higher to a lower level. By showing that action identities matter for attitude-behavioral intentions, the present experiments provide support and integration for both ART and AIT, a result predicted by Vallacher and Wegner (1987):

> Thus, a person controlling an act with relatively low level identities in mind is prone toward inconsistent, perhaps even impulsive, behavior and is highly sensitive to social feedback and other contextual cues to higher level meaning. The person controlling action at a relatively high level, meanwhile, can behave flexibly with respect to lower level identities while maintaining a broader goal or purpose. (p. 13)

NOTES

1. Correlations between attitudes and behavioral intentions were significant in both conditions, $r(54) = .652$, in the higher level condition, and $r(54) = .478$, in the lower level condition. These two correlations did not differ, $z = .98$, *ns*.

2. Participants in the higher level condition listed significantly more actions ($M = 3.28$) than did participants in the lower level condition ($M = 2.89$) or the control condition ($M = 2.62$), $F(2, 178) = 11.63$, $p < .001$, but the latter two conditions did not differ by Tukey's test.

Because subjective ease of generating ideas has effects of its own (Haddock, Rothman, Reber, & Schwarz, 1999), these differences might have clouded interpretation of the attitude-behavior congruency results had they matched the pattern of attitude-behavior means, but they did not.

3. Correlations between attitudes and behavioral intentions were significant in all conditions, $r(58) = .787$, in the control condition, $r(60) = .678$, in the higher level condition, and $r(60) = .394$, in the lower level condition. The only significant difference among pairs of these correlations was that between the control and lower level conditions, $z = 2.04$, $p < .05$.

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