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Development and Validation of Value-, Outcome-, and Impression-Relevant Involvement Scales

Despite scholarly consensus that there is more than one type of involvement, investigators have not developed measures that assess the various types across diverse contexts. The goal of this study was to develop and validate measures of value-, outcome-, and impression-relevant involvement. Items were developed for three social issues (abortion, death penalty, marijuana) and two consumer products (jeans, toothpaste). The results indicate that these items effectively distinguish the three types of involvement. In addition, evidence of construct validity was obtained. Specifically, impression-relevant involvement was associated with other-directedness, outcome-relevant involvement was more strongly associated with information seeking than either value- or impression-relevant involvement, and value-relevant involvement (but also outcome-relevant involvement) was related to attitude extremity.

Keywords: *involvement; value; outcome; impression; scales*

Involvement has been one of the pivotal constructs in communication research. For understanding how messages or the media influence audience behavior, the construct has been integral. Consequently, involvement has frequently been used in diverse domains of communication research including persuasion (e.g., Slater, 1990; Slater & Rouner, 1992, 1996a, 1996b) and media effect (e.g., Brown & Basil, 1995; Kwak, 1999).

In spite of its usefulness, involvement is one of the most problematic constructs in communication research (Roser, 1990; Salmon, 1986; Slater, 1997,

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p. 125). Increasing use and expanding applications have resulted in a collection of conceptualizations for the construct. Despite sharing the same label, they may differ (Salmon, 1986). Salmon went so far as to call involvement a “vague metaconcept” (p. 244) in pointing out the confusion surrounding the construct.

In their meta-analysis of the effects of involvement on persuasion, Johnson and Eagly (1989, 1990; Levin, Nichols, & Johnson, 2000; cf. Petty & Cacioppo, 1990) illustrated the conceptual and instrumental divergence in involvement research and distinguished three types of involvement: value relevant, outcome relevant, and impression relevant. Moreover, Johnson and Eagly (1989) found that different types of involvement produce different suasive effects.

If there are multiple involvement constructs, they must be separately measured to be useful. Distinguishing them instrumentally would be of vital importance to those investigators who examine audience attitudes and behavior. Failing to distinguish them may retard progress in these areas.

Thus, the purpose of this study is to develop and validate, if they exist, measures of the three different involvement constructs proposed by Johnson and Eagly (1989). This task begins with a discussion of the value-, outcome-, and impression-relevant involvement classification, followed by a brief review of existing involvement scales. Next, a report of the method and results of a validation study is presented. Finally, implications of the results and potential use of the measures for communication research are discussed.

Value-, Outcome-, and Impression-Relevant Involvement

According to Johnson and Eagly (1989), there have been three distinguishable bodies of involvement research: value relevant, outcome relevant, and impression relevant. Although all three types of involvement represent “a motivational state induced by an association between an activated attitude and the self-concept” (p. 290), each is stimulated by a distinct dimension of the self-concept. Moreover, their meta-analysis reports that these different kinds of involvement produce different persuasion effects:

- (a) With value-relevant involvement, high involvement subjects were less persuaded than low-involvement subjects;
- (b) with outcome-relevant involvement, high-involvement subjects were more persuaded than low-involvement subjects by strong arguments and (somewhat inconsistently) less persuaded by weak arguments; and
- (c) with

impression-relevant involvement, high-involvement subjects were slightly less persuaded than low-involvement subjects. (p. 290)

Value-Relevant Involvement

To Johnson and Eagly (1989), value-relevance is the prominent feature of ego involvement as studied by Sherif and colleagues (Sherif & Cantril, 1947; Sherif & Hovland, 1961; Sherif, Kelly, Rogers, Sarup, & Tittler, 1973; Sherif & Sherif, 1967; Sherif, Sherif, & Nebergall, 1965). Ego refers to one's view of self or self-concept. Ego is revealed by "the characteristic feelings of continuity and permanence the individual has about himself" (Sherif & Cantril, 1947, p. 94). A stimulus is ego-involving to the extent that it helps people sustain their sense of self-identity. Sherif and Cantril remarked, "All attitudes that define a person's status or that give him some relative role with respect to other individuals, groups, or institutions are ego-involved" (p. 96).

Ego, or self-concept, is integrally related to values. Ostrom and Brock (1968) assert that "the basic feature of an ego-involved attitude is its relation to the manner in which the individual defines himself. The individual defines himself primarily in terms of that 'distinct constellation of social and personal values' he has acquired" (p. 375). Specifically, attitudes and actions are guided by values, and one's preferred "mode of conduct and end-state of existence" (Rokeach, 1968, p. 160) are indicative of his or her values. Ostrom and Brock's (1968) perspective on ego involvement is consistent with Sherif and Cantril's (1947), who stated: "These contents of ego . . . provide for the individuals the standards of judgment or frames of reference which determine to such an important degree his social behavior and reactions" (p. 117).

Because of this emphasis, Johnson and Eagly (1989) renamed ego-involvement as value-relevant involvement to distinguish it more clearly from other types of involvement. Value-relevant involvement is defined as "the psychological state that is created by the activation of attitudes that are linked to important values" (Johnson & Eagly, 1989, p. 290).

According to social judgment theory, to which the construct of ego involvement is integral, involvement inhibits persuasion. Defining attitude as the set of categories for evaluation, Sherif (Sherif & Sherif, 1967, p. 115; Sherif et al., 1973) stated that attitudes consist of a latitude of acceptance (i.e., the range of acceptable positions), a latitude of rejection (i.e., the range of objectionable positions), and a latitude of noncommitment (i.e., the range of positions that are neither acceptable or objectionable).

As an individual becomes more ego-involved with an issue, the latitude of rejection increases and the latitudes of noncommitment and acceptance decrease (Sherif et al., 1965; Sherif & Hovland, 1961). Thus, for those highly

involved, few positions on such issues are found acceptable and few produce neither positive nor negative evaluations. Concurrently, the range of positions objectionable is large (Sherif et al., 1965; Sherif & Hovland, 1961).

Therefore, value-relevant involvement is likely to be associated positively with attitude extremity. For example, Sherif (1965) found that as the extremity of one's stand on issues increases, the latitude of rejection increases and the latitude of noncommitment decreases (cf. Krosnick, Boninger, Chuang, Berent, & Carnot, 1993). Consequently, those with high value-relevant involvement are difficult to persuade.

Outcome-Relevant Involvement

Johnson and Eagly (1989, p. 292) view the relevance of an issue to one's goals or outcomes to be characteristic of Petty and Cacioppo's (1979a, 1979b, 1981) perspective on involvement. Therefore, to Johnson and Eagly (1989), Petty and Cacioppo's (1979b) conceptual definition of involvement, "the extent to which the attitudinal issue under consideration is of personal importance" (p. 1915), is too broad. It is because Petty and Cacioppo's experimental induction of the construct underscores one particular dimension of issue importance: its consequences (Johnson & Eagly, 1989).

For example, in one experiment, college students were exposed to messages advocating changes to the coed visitation hour policy that would take place either at their school (high involvement condition) or at another school (low involvement condition; Petty & Cacioppo, 1979b, Experiment 1). In another experiment (Petty, Cacioppo, & Goldman, 1981), college students were exposed to messages advocating a senior comprehensive exam to be instituted at their school either in the next year (high involvement condition) or in 10 years (low involvement condition). Thus, Salmon (1986) stated that in Petty and Cacioppo's experiments, "Involvement is used almost exclusively to refer to a condition that has 'future consequences' for the subject" (p. 254). In this context, Johnson and Eagly (1989) coined the term outcome-relevant involvement to describe Petty and Cacioppo's (1979b, 1981) notion of involvement and to distinguish it from value-relevant involvement.

Further, the effects of involvement on persuasion predicted by Petty and Cacioppo are different from those described by Sherif. Outcome-relevant involvement can either enhance or inhibit persuasion because it promotes issue-relevant thinking (Petty & Cacioppo, 1981). On one hand, involvement facilitates attitude change when messages are rife with strong, logical arguments that are germane to the issue at hand. On the other hand, involvement attenuates attitude change when the audience is presented with less compelling arguments and non-issue-relevant cues.

When involvement is elicited by the perception that important future consequences are at stake, people are likely to pay attention to messages and to process them in-depth and extensively as outcome-relevant involvement stimulates the motivation to process information and the subsequent cognitive processing. Hence, outcome-relevant involvement is likely to be associated positively with information seeking, such as the motivation to stay informed about issues or products, the tendency to pay attention to mass media coverage of issues or products, and the motivation to process mass media information on issues or products.

For example, research has demonstrated consistently that those with high outcome-relevant involvement seek information and engage in extensive evaluation of information (e.g., Laurent & Kapferer, 1985; McQuarrie & Munson, 1992). They pay more attention to persuasive messages and engage in a greater level of elaboration (e.g., Celsi & Olson, 1988; Perse, 1990), and their information processing is more objective and less biased (e.g., Hubbell, Mitchell, & Gee, 2001; Levin et al., 2000).

Impression-Relevant Involvement

Concern with public perception of the self is central to impression-relevant involvement. Zimbardo (1960) described this state as response involvement and defined it as “the individual’s concern with the consequences of his response or with the instrumental meaning of his opinion” (p. 87). Because response involvement concerns consequences of communication about an issue, it is different from ego involvement, which refers one’s concern about the issue itself (Zimbardo, 1960).

Johnson and Eagly (1989) further clarify response involvement. Specifically, they noted that Zimbardo’s (1960) conceptual definition of response involvement suggests that consequences of communication can be of multiple types. They go on to point out, however, that Zimbardo’s experimental induction of involvement concerns only one consequence: one’s impression on others. Hence, they employ the term impression-relevant involvement to denote Zimbardo’s conceptualization and induction of involvement.

To Leippe and Elkin (1987), impression- and outcome-relevant involvement differ in that they foster different task orientations as proposed by Greenwald (1982, p. 132). The concern of those with high impression-relevant involvement is on others’ perceptions. Thus, impression-relevant involvement induces a public-task orientation, which assists in satisfying the need for approval. On the other hand, outcome-relevant involvement is evoked by the desire to protect and promote one’s own interests and welfare. Therefore, outcome-relevant involvement stimulates private-task orientation, which

motivates self-evaluation as a means of meeting personal goals and standards (e.g., passing a senior comprehensive exam).

Similarly, one can distinguish impression-relevant involvement from value-relevant involvement, which, according to Johnson and Eagly (1989), represents the motivation to preserve one's view of self and one's belief systems. Consequently, highly value-involved persons strive to conduct themselves in a manner consistent with the beliefs and principles they hold. In contrast, those motivated by impression-relevant involvement are likely to behave in a manner that is easily adaptable to the implicit and explicit expectations of others (Leippe & Elkin, 1987).

Therefore, impression-relevant involvement will be associated positively with the other-directedness dimension of the Self Monitoring Scale (see Briggs, Cheek, & Buss, 1980; Dillard & Hunter, 1989; Snyder, 1974). Noting that this facet of self-monitoring pertains to "pleasing others, conforming to the social situation, and masking one's true feelings," Briggs et al. (1980, p. 681) remarked that "although these tendencies are diverse, they all concern an orientation toward others" (p. 681).

Despite the divergent types of involvement discussed previously, measures that capture the different conceptualizations are not available. Before presenting hypotheses, existing involvement scales are reviewed briefly.

Involvement Measures

A few attempts have been made to create an instrument that assesses involvement, but each has shortcomings. Zaichkowsky (1985, 1994) developed, validated, and revised the Personal Involvement Inventory (PII), a multiple-item involvement index. Both the original and revised PII assess the magnitude of involvement but not the type of involvement. Zaichkowsky (1985) asserted that the PII was developed on the basis of a "general view of involvement," defining the construct as "a person's perceived relevance of the object based on inherent needs, values, and interests" (p. 342). Therefore, Zaichkowsky's items do not distinguish different types of involvement, such as those suggested by Johnson and Eagly (1989).

Laurent and Kapferer (1985) were the first to develop a multidimensional index of involvement—the Consumer Involvement Profile (CIP). The recognition and measurement of multiple types of involvement was an advance; however, the use of the CIP is limited to studies of consumer behavior. A range of involvement scales revising the PII and incorporating some dimensions of the CIP (e.g., Jain & Srinivasan, 1990; McQuarrie & Munson, 1992; Mittal, 1995) are available, but they are limited to the study of consumer

behavior as well. Measures applicable both to issues and products, as well as assessing different dimensions of involvement, have yet to be developed.

Our goal is to create and evaluate a scale that assesses the various types of involvement. Several conclusions pertinent to a test of the validity of measures of the value-, outcome-, and impression-relevant dimensions of involvement follow from the preceding discussion. First, as a test of content validity, it is predicted:

Hypothesis 1: Items designed to measure each of the three dimensions of involvement (i.e., value-, outcome-, and impression-relevant involvement) will fit a three-factor model.

Second, the preceding review implies several tests of construct validity. Specifically, it is predicted:

Hypothesis 2a: Value-relevant involvement will be associated positively with attitude extremity.

Hypothesis 2b: Outcome-relevant involvement will be associated positively with information seeking.

Hypothesis 2c: Impression-relevant involvement will be associated positively with other-directedness.

A study was designed to test these predictions.

Method

Participants

A total of 283 students enrolled in introductory communication courses at a college in New England participated in this study. Participants' ages ranged from 18 to 38 with a mean of 20 years. Most were Caucasian (79.9%). Asians, Hispanics, and African Americans comprised 7.9%, 2.9%, and 1.4% of the sample, respectively. Approximately two thirds of the participants (66.1%) were female.

Instrumentation

Items were generated to measure value-, outcome-, and impression-relevant involvement. Some of the value-relevant (numbers 3-6 for social issues; numbers 3-5 for consumer products) and outcome-relevant (two items: "It is easy

for me to think . . . ” and “It is difficult for me to think . . . ”) involvement items were adapted from Boninger, Krosnick, and Berent (1995). The items were presented in a seven-point Likert-type format with the response scale ranging from *strongly disagree* to *strongly agree*. The items were scored so that a higher number indicated higher involvement. Participants made ratings for each of five topics (three social issues and two consumer products) that were expected to have varying levels of involvement for a college student population (abortion, death penalty, marijuana, jeans, and toothpaste). It was necessary to modify items slightly to fit the topic characteristics.

Consistent with previous studies (Abelson, 1995; Downing, Judd, & Brauer, 1992; Wegner, Downing, Krosnick, & Petty, 1995), attitude extremity was measured by assessing the absolute value discrepancy of the participants' responses from the neutral point of a series of attitude items. For each topic, participants were presented with three sets of word pairs: “extremely positive and extremely negative,” “extremely desirable and extremely undesirable,” and “extremely favorable and extremely unfavorable.” The resulting score ranged from 1 to 4, with higher numbers indicating greater attitude extremity. Reliability was ample across topics (abortion $\alpha = .95$; death penalty $\alpha = .96$; marijuana $\alpha = .96$; jeans $\alpha = .96$; toothpaste $\alpha = .95$).

The items employed to measure information seeking were from Laurent and Kapferer (1985). For social issues, five items were used. For example, the items regarding the death penalty included “I try to keep myself informed about the issue of the death penalty,” “I tend to pay attention to articles on the issue of the death penalty,” “I tend to pay attention to television programs on the issue of the death penalty,” “I would be interested in reading articles on the issue of the death penalty,” and “I would be interested in watching television programs on the issue of the death penalty.” For consumer products, a slightly modified set of five items was used. For example, the items about toothpaste included “I try to keep myself informed about toothpaste brands,” “I tend to pay attention to toothpaste ads in magazines,” “I tend to pay attention to toothpaste television commercials,” “I would be interested in reading articles on toothpaste brands,” and “I would be interested in watching television programs on toothpaste brands.” Accompanying these items were 7-point Likert-type scales ranging from *strongly agree* to *strongly disagree*. Cronbach's α was .93 for abortion, .94 for the death penalty, .96 for marijuana, .94 for jeans, and .91 for toothpaste.

Items validated by Dillard and Hunter (1989) were used to measure other-directedness. These items included “In different situations and with different people, I often act like very different persons,” “In order to get along and be liked, I tend to be what people expect me to be rather than anything else,” “I'm not always the person I appear to be,” “I may deceive people by being friendly

when I really dislike them,” and “I would not change my opinions (or the way I do things) in order to please someone else or win favor.” Participants responded to these items on 7-point response scales ranging from *strongly agree* to *strongly disagree*. Cronbach’s α was .65 for this index.

Results

Hypothesis 1

A confirmatory factor analysis was performed to assess the content validity of the involvement items. PACKAGE, the statistical software employed, estimates parameters employing a centroid solution (Hunter & Gerbing, 1982).² Items were inspected initially for content or face validity. Subsequently, tests of internal consistency were performed for each factor to assess the fit of the correlations among the items that were designed as alternate indicators of the same underlying factor. Next, tests of parallelism were performed to assess the fit of the correlations among items that were indicators of different factors. The initial results indicated that all factor loadings were adequate; however, the results of internal consistency and parallelism tests showed large residuals stemming from one impression-relevant involvement item (“I am careful when talking to others about [the death penalty], because it affects how much they will like me.”).

Consequently, the item was deleted, and the factor model was tested again. These data were consistent with the three-factor model. Tables 1a, 1b, 1c, 1d, and 1e present the items, factor loadings, means, and standard deviations for the indicators comprising these three factors. Table 2 displays the interfactor correlations among the involvement indices. Both internal consistency and parallelism tests showed that few residuals were larger than would be expected from sampling error (residual data are available upon request).

For the two consumer products, jeans and toothpaste, but not for the three social issues topics, observation of the interfactor correlations suggests the possibility that the data contain second-order unidimensionality. Tests of second-order unidimensionality were performed. Because there were three involvement indices, the factor model is just-identified, and its internal consistency cannot be tested without making an assumption. The most common assumption is that the correlations among the indices are equal. Although this assumption is reasonable for jeans, it is not reasonable for toothpaste. The parallelism of the model with respect to attitude extremity, information seeking, and other-directedness was examined, but despite a reasonable sample size of approximately 300, this test was equivocal. Put differently, the

(text continues on p. 254)

Table 1a
Items and the Results of Confirmatory Factor Analysis: Involvement With Abortion

	Impression	Outcome	Value	M	SD
Impression-relevant involvement ($\alpha = .72$)					
1. Talking about my beliefs concerning the legalization of abortion has little effect on what others think of me.	.67	.12	.10	4.04	1.81
2. The impressions that others have of me are very much affected when I talk with them about my position on the legalization of abortion.	.71	.04	.23	3.55	1.62
3. The kind of opinion that I express in public about the legalization of abortion has little effect on what others think of me.	.73	.03	.10	4.12	1.63
4. People may judge me on the basis of the opinion that I express in public about the legalization of abortion.	.49	.17	.22	4.42	1.66
5. If I express the right kind of opinion on the legalization of abortion, people will find me more attractive.	.37	.00	-.02	2.58	1.67
Outcome-relevant involvement ($\alpha = .91$)					
1. Whether abortions are legal or not has little impact on my life.	.09	.78	.27	5.14	1.87
2. All in all, the effect of laws concerning abortion on my life is small.	.16	.83	.20	4.92	1.90
3. My life would be changed if abortions became illegal.	.08	.72	.21	4.38	2.00
4. Laws concerning the legality of abortion have little effect on me.	.11	.85	.21	4.86	1.86
5. My life would not change much if abortion laws were changed.	.07	.78	.26	4.58	1.90
6. It is easy for me to think of ways the legalization of abortion affects my life.	.04	.76	.25	4.71	1.83
7. It is difficult for me to think of ways the laws concerning abortion impact my life.	.11	.78	.19	4.93	1.81

Value-relevant involvement ($\alpha = .89$)

1. The values that are the most important to me are what determine my stand on the legalization of abortion.	.23	.22	.69	4.94	1.67
2. Knowing my position on the legalization of abortion is central to understanding the kind of person I am.	.25	.21	.73	4.35	1.81
3. My position on the legalization of abortion has little to do with my beliefs about how life should be lived.	.04	.19	.57	4.84	1.80
4. My position on the legalization of abortion is based on the values with which I try to conduct my life.	.08	.21	.76	4.71	1.76
5. The arguments for or against the legalization of abortion are relevant to the core principles that guide my life.	.20	.28	.83	4.39	1.73
6. My beliefs about how I should live my life determine my position on the legalization of abortion.	.13	.17	.83	4.49	1.82
7. My position on the legalization of abortion reflects who I am.	.17	.21	.75	4.30	1.85

Table 1b
Items and the Results of Confirmatory Factor Analysis: Involvement With the Death Penalty

	Impression	Outcome	Value	M	SD
Impression-relevant involvement ($\alpha = .74$)					
1. Talking about my beliefs concerning the death penalty has little effect on what others think of me.	.63	.15	.13	3.72	1.79
2. The impressions that others have of me are very much affected when I talk with them about my position on the issue of the death penalty.	.80	.12	.19	3.19	1.65
3. The kind of opinion that I express in public about the death penalty has little effect on what others think of me.	.51	.14	.17	3.86	1.71
4. People may judge me on the basis of the opinion that I express in public about the death penalty.	.54	.12	.08	3.90	1.70
5. If I express the right kind of opinion on the death penalty, people will find me more attractive.	.58	.06	.03	2.58	1.60
Outcome-relevant involvement ($\alpha = .88$)					
1. Whether or not states impose the death penalty has little impact on my life.	.10	.71	.41	4.04	1.74
2. My life would be changed if the death penalty were eliminated throughout the states.	.13	.67	.25	3.69	1.72
3. Changes in laws for or against the death penalty will have little effect on me.	.15	.84	.35	3.88	1.75
4. My life would not change much if the death penalty were adopted throughout the states.	.11	.74	.31	3.81	1.72
5. It is easy for me to think of ways in which the death penalty may affect my life.	.18	.72	.28	3.72	1.68
6. It is difficult for me to think of ways the death penalty impacts my life.	.17	.65	.22	3.95	1.70
7. All in all, the effect of changes in death penalty laws on my life would be little.	.14	.74	.32	3.66	1.66

Value-relevant involvement ($\alpha = .91$)

1. The values that are most important to me are what determine my stand on the issue of the death penalty.	.09	.30	.76	4.68	1.71
2. Knowing my position on the death penalty is central to understanding the kind of person I am.	.22	.34	.73	4.03	1.76
3. My position on the death penalty has little to do with my beliefs about how life should be lived.	.06	.15	.52	4.79	1.64
4. My position on the death penalty is based on the values with which I try to conduct my life.	.17	.34	.85	4.57	1.65
5. The arguments for or against the death penalty are relevant to the core principles that guide my life.	.13	.44	.88	4.31	1.68
6. My beliefs about how I should live my life determine my position on the death penalty.	.20	.33	.83	4.32	1.76
7. My position on the issue of the death penalty reflects who I am.	.18	.35	.78	4.14	1.78

Table 1c
Items and the Results of Confirmatory Factor Analysis: Involvement With Marijuana

	Impression	Outcome	Value	M	SD
Impression-relevant involvement ($\alpha = .72$)					
1. Talking about my beliefs concerning the legalization of marijuana has little effect on what others think of me.	.59	.25	.22	3.58	1.90
2. The impressions that others have of me are very much affected when I talk with them about my position on the issue of the legalization of marijuana.	.81	.23	.39	3.00	1.64
3. The kind of opinion that I express in public about the legalization of marijuana has little effect on what others think of me.	.61	.26	.20	3.69	1.76
4. People may judge me on the basis of the opinion that I express in public about the legalization of marijuana.	.47	.31	.31	3.73	1.78
5. If I express the right kind of opinion on the legalization of marijuana, people will find me more attractive.	.45	.10	.11	2.30	1.56
Outcome-relevant involvement ($\alpha = .86$)					
1. Whether using marijuana is legal or not has little impact on my life.	.24	.68	.18	3.91	2.03
2. All in all, the effect of laws concerning marijuana on my life is little.	.31	.78	.27	3.66	1.99
3. My life would be changed if using marijuana became legal.	.23	.62	.25	3.79	2.10
4. Laws concerning the legality of marijuana have little effect on me.	.34	.82	.19	3.79	2.02
5. My life would not change much if marijuana laws were changed.	.26	.70	.23	3.71	2.00
6. It is easy for me to think of ways the legalization of marijuana would affect my life.	.23	.66	.23	4.06	1.91
7. It is difficult for me to think of ways change in laws concerning marijuana would impact my life.	.27	.58	.19	4.26	1.85

Value-relevant involvement ($\alpha = .85$)

1. The values that are the most important to me are what determine my stand on the legalization of marijuana.	.17	.17	.56	3.96	1.92
2. Knowing my position on the legalization of marijuana is central to understanding the kind of person I am.	.28	.23	.65	3.25	1.96
3. My position on the legalization of marijuana has little to do with my beliefs about how life should be lived.	.23	.26	.43	4.11	1.97
4. My position on the legalization of marijuana is based on the values with which I try to conduct my life.	.23	.25	.64	4.21	1.82
5. Arguments for or against the legalization of marijuana are relevant to the core principles that guide my life.	.37	.21	.80	3.41	1.81
6. My beliefs about how I should live my life determine my position on the legalization of marijuana.	.30	.18	.79	3.58	1.89
7. My position on the legalization of marijuana reflects who I am.	.39	.19	.79	3.35	1.98

Table 1d
Items and the Results of Confirmatory Factor Analysis: Involvement With Jeans

	Impression	Outcome	Value	M	SD
Impression-relevant involvement ($\alpha = .88$)					
1. The brand of jeans that I wear has little effect on what others think of me.	.62	.54	.44	3.28	1.92
2. When others know what brand of jeans I wear, their impressions of me may be affected.	.89	.47	.39	3.35	1.86
3. If others knew the brand of jeans that I wear, it would impact their opinion of me.	.91	.45	.42	3.13	1.80
4. Others may judge me on the basis of the brand of jeans that I wear.	.82	.37	.34	3.67	1.92
5. If I wear the right brand of jeans, people will find me more attractive.	.65	.56	.45	3.20	2.04
Outcome-relevant involvement ($\alpha = .89$)					
1. The kind of jeans brand that I wear has little impact on my life.	.40	.62	.49	2.97	2.00
2. My life would be changed if a jeans brand that suits me perfectly were created.	.36	.60	.33	3.86	2.07
3. My quality of life would not change depending on the brand of jeans that I wear.	.39	.66	.37	2.88	1.84
4. It is easy for me to think of ways the right brand of jeans influences my well-being.	.52	.75	.56	3.16	1.86
5. Wearing the right brand of jeans affects my daily life.	.56	.81	.59	3.06	1.93
6. It is difficult for me to think of ways the choice of jeans impacts my life.	.44	.78	.45	3.18	1.85
7. My well-being has little to do with the brand of jeans that I wear.	.37	.73	.61	2.73	1.82
8. All in all, the effects of jeans brand on my life would be little.	.46	.78	.54	2.71	1.76

Value-relevant involvement ($\alpha = .92$)

1. The values that are the most important to me determine the brand of jeans that I wear.	.43	.56	.83	2.30	1.61
2. Knowing what brand of jeans that I wear is central to understanding the kind of person I am.	.46	.63	.85	2.34	1.66
3. My choice of jeans brand is based on the values with which I try to conduct my life.	.43	.55	.92	2.30	1.66
4. My choice of jeans brand is based on the core principles that guide my life.	.42	.53	.91	2.16	1.56
5. My beliefs about how I should live my life determine my choice of jeans brand.	.42	.58	.85	2.41	1.80
6. My choice of jeans reflects who I am.	.44	.58	.61	3.16	2.03

Table 1e
Items and the Results of Confirmatory Factor Analysis: Involvement With Toothpaste

	Impression	Outcome	Value	M	SD
Impression-relevant involvement ($\alpha = .86$)					
1. The brand of toothpaste that I use has little effect on what others think of me.	.61	.53	.48	2.00	1.58
2. The impressions that others have of me are very much affected when they know what brand of toothpaste I use.	.77	.49	.52	1.87	1.41
3. If others knew the brand of toothpaste that I use, it would impact their opinion of me.	.92	.52	.60	1.79	1.26
4. Others may judge me on the basis of the brand of toothpaste that I use.	.86	.46	.55	2.00	1.52
5. If I use the right brand of a toothpaste, people will find me more attractive.	.70	.59	.50	2.22	1.75
Outcome-relevant involvement ($\alpha = .82$)					
1. The kind of toothpaste brand that I use has little impact on my life.	.47	.50	.45	2.63	2.05
2. My life would be changed if a toothpaste brand that suited me perfectly were created.	.41	.54	.43	2.55	1.82
3. My quality of life would not change depending on the brand of toothpaste that I use.	.35	.50	.33	2.82	2.08
4. It is easy for me to think of ways the right brand of toothpaste influences my well-being.	.43	.67	.51	2.75	1.86
5. Using the right brand of toothpaste affects my daily life.	.38	.69	.53	2.65	1.90
6. It is difficult for me to think of ways the choice of toothpaste brand impacts my life.	.42	.71	.51	2.71	1.86
7. My well-being has little to do with the brand of toothpaste that I use.	.32	.61	.48	2.77	2.01
8. All in all, the effect of toothpaste brand on my life would be little.	.48	.68	.61	2.16	1.62

Value-relevant involvement ($\alpha = .96$)

1. The values that are the most important to me determine the brand of toothpaste that I use.	.60	.72	.88	1.99	1.46
2. My toothpaste reflects who I am.	.59	.73	.90	1.99	1.51
3. Knowing what brand of toothpaste that I use is central to understanding the kind of person I am.	.60	.71	.92	2.02	1.48
4. My choice of toothpaste brand is based on the values with which I try to conduct my life.	.67	.73	.97	1.92	1.36
5. My choice of toothpaste brand is based on the core principles that guide my life.	.67	.72	.92	1.99	1.49
6. My beliefs about how I should live my life determine my choice of toothpaste.	.61	.68	.84	2.02	1.54

Table 2
Factor Correlations

	Abortion			Death Penalty			Marijuana			Jeans			Toothpaste		
	VRI	ORI	IRI	VRI	ORI	IRI	VRI	ORI	IRI	VRI	ORI	IRI	VRI	ORI	IRI
Value-relevant involvement (VRI)															
Outcome-relevant involvement (ORI)	.29			.42			.32			.69			.79		
Impression-relevant involvement (IRI)	.21	.12		.20	.19		.42	.39		.52	.61		.69	.67	

Table 3a
Results of Correlation Analysis: Attitude Extremity

	Value-Relevant Involvement		Outcome-Relevant Involvement		Impression-Relevant Involvement	
	r		r		r	
Abortion	.32	<i>p</i> < .001	.44	<i>p</i> < .001	-.14	<i>p</i> < .05
Death penalty	.44	<i>p</i> < .001	.29	<i>p</i> < .001	-.07	<i>ns</i>
Marijuana	.34	<i>p</i> < .001	.51	<i>p</i> < .001	.15	<i>p</i> = .02
Jeans	.25	<i>p</i> < .001	.36	<i>p</i> < .001	.23	<i>p</i> < .001
Toothpaste	.00	<i>ns</i>	.05	<i>ns</i>	-.10	<i>ns</i>

Table 3b
Results of Multiple Regression Analysis: Attitude Extremity

	Value-Relevant Involvement		Outcome-Relevant Involvement		Impression-Relevant Involvement	
	β		β		β	
Abortion	.24	<i>p</i> = .001	.37	<i>p</i> < .001	-.14	<i>p</i> < .04
Death penalty	.40	<i>p</i> < .001	.14	<i>p</i> < .05	-.11	<i>ns</i>
Marijuana	.19	<i>p</i> = .006	.44	<i>p</i> < .001	-.03	<i>ns</i>
Jeans	.02	<i>ns</i>	.36	<i>p</i> < .001	-.02	<i>ns</i>
Toothpaste	.01	<i>ns</i>	.14	<i>ns</i>	-.19	<i>p</i> < .04

error in reproducing the correlation matrix was not so small that the hypothesis of second-order unidimensionality could be embraced confidently. On the other hand, the error was not so large as to lead confidently to the rejection of the model. Given the rationale for the development of the three-factor model, the three involvement indices are retained in subsequent analyses.

Hypothesis 2

Hypothesis 2a. Value-relevant involvement was predicted to be associated positively with attitude extremity. As Table 3a indicates, this correlation is positive and of reasonable magnitude for four of the five topics, the toothpaste topic being the exception. A more rigorous test of the causal impact of value-relevant involvement's effect on attitude extremity involves regressing attitude extremity onto all three involvement indices (see Table 3b). Value-relevant involvement emerged as an important predictor of attitude extremity for the death penalty, abortion, and marijuana topics but not for the two consumer products. Moreover, outcome-relevant involvement also emerged

Table 4a
Results of Correlation Analysis: Information Seeking

	Value-Relevant Involvement		Outcome-Relevant Involvement		Impression-Relevant Involvement	
	r		r		r	
Abortion	.29	<i>p</i> < .001	.42	<i>p</i> < .001	-.00	<i>ns</i>
Death penalty	.35	<i>p</i> < .001	.35	<i>p</i> < .001	.13	<i>p</i> < .02
Marijuana	.24	<i>p</i> < .001	.55	<i>p</i> < .001	.18	<i>p</i> = .002
Jeans	.46	<i>p</i> < .001	.59	<i>p</i> < .001	.46	<i>p</i> < .001
Toothpaste	.36	<i>p</i> < .001	.39	<i>p</i> < .001	.39	<i>p</i> < .001

Table 4b
Results of Regression Analysis: Information Seeking

	Value-Relevant Involvement		Outcome-Relevant Involvement		Impression-Relevant Involvement	
	β		β		β	
Abortion	.20	<i>p</i> = .001	.37	<i>p</i> < .001	-.04	<i>ns</i>
Death penalty	.24	<i>p</i> < .001	.25	<i>p</i> < .001	.06	<i>ns</i>
Marijuana	.09	<i>ns</i>	.50	<i>p</i> < .001	.00	<i>ns</i>
Jeans	.11	<i>ns</i>	.44	<i>p</i> < .001	.14	<i>p</i> = .02
Toothpaste	.06	<i>ns</i>	.23	<i>p</i> = .007	.20	<i>p</i> = .008

as a substantial predictor for most of the topics. Impression-relevant involvement did not emerge as a powerful predictor, although it did make a modest contribution to the prediction of attitude extremity for one topic (toothpaste).

Hypothesis 2b. Outcome-relevant involvement was predicted to be associated positively with information seeking. As Table 4a indicates, this correlation is positive and of reasonable magnitude for all five topics. Regressing information seeking onto the three involvement indices (see Table 4b) indicated that outcome-relevant involvement was consistently a strong predictor of information seeking. Although there were some nontrivial effects of value-relevant and impression-relevant involvement, they were not consistent across topics, and they were relatively small.

Hypothesis 2c. Impression-relevant involvement was predicted to be associated positively with other-directedness. From Table 5, it can be observed that modest positive correlations were obtained for three of the five topics. From Table 5, it can also be seen that some of the other dimensions of

Table 5
Results of Correlation Analysis: Other-Directedness

	Value-Relevant Involvement		Outcome-Relevant Involvement		Impression-Relevant Involvement	
	r		r		r	
Abortion	-.13	$p < .02$	-.07	<i>ns</i>	.14	$p = .01$
Death penalty	-.06	<i>ns</i>	-.01	<i>ns</i>	.13	$p < .02$
Marijuana	.01	<i>ns</i>	.00	<i>ns</i>	.08	<i>ns</i>
Jeans	.19	$p = .001$.16	$p = .005$.26	$p < .001$
Toothpaste	-.01	<i>ns</i>	.05	<i>ns</i>	.05	<i>ns</i>

involvement correlated in modest but statistically significant ways with other-directedness. Because other-directedness was conceived as causally antecedent to impression-relevant involvement, regression analyses parallel to those presented in preceding paragraphs were not performed.

Discussion

This study sought to develop and validate scales tapping the value-, outcome-, and impression-relevant dimensions of involvement posited by Johnson and Eagly (1989, 1990). Overall, the results of this study are consistent with the hypothesis that involvement is a multidimensional construct. The test of content validity produced data consistent with the predicted three-factor model. Moreover, the test of construct validity demonstrated that each type of involvement has a different pattern of relationships with other variables.

For example, because impression-relevant involvement was the only type of involvement that was consistently associated positively with other-directedness, it is distinguishable from value- and outcome-relevant involvement. Furthermore, outcome-relevant involvement is distinguished from the other types of involvement by its strong association with information seeking. Although value-relevant involvement was also associated with information seeking for some topics, these effects were inconsistent and less substantial than those for outcome-relevant involvement. Finally, value-relevant involvement is differentiated from impression-relevant involvement because of its substantial relationship with attitude extremity.

Limitations

The indices developed in this study could benefit from conducting additional validation studies. Future research would profit by examining the dimen-

sionality of the measures' changes as a function of topic. Such a test would require additional social issues and consumer products and larger samples. Adding additional social issues and consumer products could help researchers precisely understand the relationships among the different types of involvement and communication variables. The results of this study suggest that value-relevant involvement may not be an important causal determinant of some consumer products. Because the participants of this study were a convenience sample of college students, the posited three-factor model would profit from a more rigorous test done with a more representative sample. Moreover, additional construct validity studies that function to expand the nomothetic networks in which these constructs are embedded would generate additional important information pertinent to the study of involvement.

Also, there are other approaches to distinguishing the dimensions of involvement (e.g., Laurent & Kapferer, 1985; Salmon, 1986; Slater, 1997). This study is limited in that it looks only at Johnson and Eagly's (1989, 1990). Although the indices validated in this study do not address all the dimensions advanced by other scholars, they represent an important initial step toward recognizing the multidimensional nature of involvement in measurement. In addition, Johnson and Eagly's typology is useful because it is predictive (Slater, 1997). With these limitations in mind, we present the following implications.

Implications

The results of this study provide additional evidence consistent with Johnson and Eagly's (1989, 1990) contention that the three types of involvement are distinct. Thus, the results underscore the importance of distinguishing the different dimensions of involvement in communication research. Of particular importance is investigating the aspects of the self-concept that are activated by an issue because different types of involvement are, as the results of this study show, associated differently with different variables relevant to the process of communication.

The scales validated in this study can facilitate investigation of the aspects of the self-concept that messages or media content stimulate. For example, political involvement (e.g., Hofstetter & Gianos, 1997) can be evoked by value- and/or outcome-relevance of an issue. Also, public expression of one's opinion about a political issue is likely to be mediated or moderated by impression-relevant involvement as well as by value- and outcome-relevant involvement. The scales can assist in identifying and teasing out potentially different aspects of self-relevance activated by an issue.

In addition to involvement, scholars have used a range of terms to refer to relationships among media content or messages and the audience, including interest (e.g., Lasorsa, 1991), issue importance (e.g., Roessler, 1999), issue obtrusiveness (e.g., Demers, Craff, Choi, & Pessin, 1989), and salience (e.g., Viswanath, Kahn, Finnegan, Hertog, & Potter, 1993). Applying the scales validated in this study can help researchers identify to which of the distinct aspects of self-concept these terms refer. When this task is completed, the role of the varying relationships in affecting the processing and consequences of messages can be better understood.

To serve this goal, the scales can be readily used in surveys and field-based communication studies. Moreover, the measures can be used in laboratory-based persuasion experiments to check the strength of experimental inductions. Levin et al. (2000) observed, "It is not unusual in message-based persuasion settings for would-be persuaders to misjudge the type of involvement that is facilitated or the attitude functions involved. In fact, this problem even occurs in published persuasion research" (p. 187).

Specifically, Levin et al. (2000) cited a study by Andrews and Gutkin (1994) in which the investigators thought that they controlled outcome-relevant involvement when, in fact, impression-relevant involvement was induced as participants were told that they would be interviewed by an expert after reviewing messages. The scales can be used not only to investigate if the experiment was successful in inducing the intended type of involvement but also to check that it did not inadvertently induce or alter other types of involvement.

In addition, the scales can be used in various communication campaign settings as a tool for formative research (Atkin & Freimuth, 1989) to understand the target audience's preexisting extent of involvement of various kinds in the campaign issue and to develop messages that effectively address them. For example, when the audience is found to have high value-relevant involvement, designers of political campaigns may choose to employ messages that appeal to their values. When the message designers do not want to leave those who perceive the value-relevant messages to be counter-attitudinal unmoved, they may opt to highlight the outcome relevance of the campaign issues and the candidate's issue positions (Levin et al., 2000). This approach to designing communication campaign messages shows promise given the growing body of research documenting the efficacy of persuasion that addresses attitude functions (e.g., Hullett & Boster, 2001; Lapinski & Boster, 2001).

Use of the scales in these research settings will, in turn, advance communication theory pertaining to involvement. For example, research on the role of ego-involved attitudes in persuasion, rooted in Sherif's tradition, is ongoing (Perloff, 2003). Hence, the scale that measures value-relevant involve-

ment can be used in surveys as well as experiments in which understanding the role of the audience's value system is important in explaining and predicting communication behavior.

The contribution of outcome-relevant involvement in advancing communication theory will be further enhanced when its role in and impact on the persuasion processes and consequences, as well as its interrelationship with value-relevant involvement, are explicated. The scales can help researchers delineate outcome- and value-relevant types of involvement and thus examine more effectively the moderating or mediating role of involvement in producing various consequences of interpersonal and mass communication messages.

Research dealing with impression-relevant involvement has not been as frequent as has research on the other two types of involvement, but it has the potential to provide useful insights for the domain of communication research in which understanding the regulation between the private and public spheres is important. For example, a long-standing interest in political communication and public opinion research is the condition under which opinions are expressed publicly (e.g., Beniger, 1992; McLeod, Pan, & Rucinski, 1995; Price & Roberts, 1987). Spiral of silence theory asserts that people will voice their privately held opinion only when they perceive it to be popular. Private opinions perceived to be in the minority will not be expressed frequently, thus producing a spiral of silence (Noelle-Neumann, 1974, 1984, 1995). One can speculate that this relationship could be contingent upon the levels of impression-relevant involvement and perhaps upon the levels of value- and outcome-relevant involvement as well. Furthermore, scholars may examine the role of the three types of involvement in the public-opinion processes in shame versus guilt cultures (Cho, 2000; Gudykunst & Ting-Toomey, 1988; Ting-Toomey, 1988) or in U.S. subcultures, such as teenagers, for whom social image management is especially important (Levin et al., 2000).

Summary

The involvement construct, although rooted in the tradition of social psychology, has been used in surveys and experiments in various domains of communication research. These domains are areas in which an understanding of audience is critical. Existing validated scales of involvement are constrained to the study of consumer behavior and are constrained by the types of involvement they assess. The indices presented in this article represent an advance over these measures.

Involvement has played an increasingly important role in understanding action and other responses to persuasion messages. These indices have the potential to assist investigators who examine these problems. The results of this study suggest that distinguishing the types of involvement would provide a greater understanding of the construct and enhance the effectiveness of future empirical inquiry.

Notes

1. This study was supported by the Emerson College Faculty Advancement Fund during the first author's affiliation with the institution.
2. The software can be obtained from the second author.

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