

## Self-report measure of attitude functions: instrumental attitudes towards condom use and value-expressive attitudes towards voting?

RENATA FRANČ and TIHANA BRKLJAČIĆ

This study presents an attempt to develop and validate a direct self-report measure of instrumental, value-expressive and social adjustive attitude function. Participants were two samples of university student ( $N = 442$ ) and we used two specific attitude objects e.g. “voting” and “condom use”. Factor analyses conducted on two different samples and with two different attitude objects revealed congruent factor solutions, suggesting a reliable and replicable expected three-factor structure. In addition, resulted scales have satisfactory high reliability. A two multiple regression analyses with the general attitude score as the dependent variable and a three attitude functions scores as predictors, revealed that that instrumental function is only important predictor of attitude towards condom use, while value-expressive function is solely important predictor of attitude towards voting. More compelling evidence for the validity of the scales would be provided if it were shown that scales could differentiate between instrumental, value-expressive and social adjustive attitudes that were newly established with an experimental manipulation or are sensitive for attitude function salience manipulation related to existing attitudes.

*Key words:* instrumental attitude function, value-expressive attitude function, social-adjustive attitude function

Functional approaches to attitudes focus on question why people hold their attitudes and suggest that the reason for that is the psychological benefits they derive from doing so. The basic assumption of the classical as well as the contemporary theories are that people can differ with regard to reasons for holding and expressing attitudes, and that knowledge of the motivational basis of attitudes is necessary for understanding the principles of attitude change.

Beginning with the classical attitude function theories to the contemporary approaches to attitude function (Katz, 1960; Shavitt, 1989; Herek, 1987; Maio & Olson, 2000a), many attitude functions or needs that can be fulfill by holding and expressing attitudes were offered. Following these theories of attitude function Eagly and Chaiken (1998) suggested distinguishing five main functions: *object appraisal function, utilitarian or instrumental function, value-expressive, social adjustive and defensive function*. Object appraisal function reflects the need for understanding and structuring environment, our perceptions and beliefs. Attitudes that serve object appraisal or knowledge function help us to give meaning to the environment, and to evaluate objects

and events on basic level. Utilitarian or instrumental function exists in attitudes that maximize rewards and minimize punishments obtained from the environment. It is based on direct personal consequences of attitude object, or it encompasses personal interest related to attitude object. Value-expressive function is based on relationship between attitudes and values. This function implies that through the attitudes we express personal values, establish and communicate our identity. Social adjustive function refers on consequences of holding and expressing values in the domain of social interactions. Social adjustive function implies that through attitudes we can facilitate, maintain or even disrupt relationships with others. Defensive function implies that holding and expressing attitudes enable people to protect and defend the self from intra-psycho conflict through ego-defense mechanism (Eagly & Chaiken, 1998).

In line with the dominant contemporary attitude definition of attitudes as evaluations, object appraisal function is regarded as universal attitude function (Eagly & Chaiken, 1998; Fazio, 2000) and all attitudes serve this function to some extent. In contrast, the relative importance and salience of other functions can vary from attitude to attitude, depending on personal characteristics, attitude object and situational characteristics (Eagly & Chaiken, 1998). Thus, with regard to main source of variation in attitude function, and accompanying way of operationalizing attitude function in contemporary research, three main approaches can be distinguished (Tesser & Shaffer, 1990; Shavitt, 1989;

Renata Franc, Institute of Social Sciences Ivo Pilar, Marulićev trg 19/1, 10 000 Zagreb, Croatia. E-mail: Renata.Franc@pilar.hr (the address for correspondence);

Tihana Brkljačić, Institute of Social Sciences Ivo Pilar.

Petty & Wegener, 1998): situational approach, individual or dispositional approach and object-centered approach.

Situational approach to attitude function supposes that attitude functions are not fixed and invariable, but attitude toward same object may serve different function depending on situational characteristics. In line with such reasoning, operationalization of attitude function is based on manipulating situational characteristics. For example, situations that make salient personal consequences of attitude object elicit instrumental function, situation that underscores relationship between attitudes and values elicit value-expressive function, while situations that imply public expressing of attitude elicits social adjustive function (Lundgren & Prišlin, 1998; Shavitt & Fazio, 1987; according to Shavitt, 1989; Maio & Olson, 1994; 1995a; 1995b).

Object centered approach assumes distinguishing attitude object with regard to dominant attitude function. According to this approach, there are attitude objects that dominantly elicit the same attitude function among majority of peoples (Shavitt, 1985; 1987; according to Shavitt 1989). Thus, attitudes toward objects which primarily symbolize other concepts, values, personal or social identifications likely serves value-expressive function or social adjustive function, while attitudes towards object which are connected with rewards and punishments likely serves instrumental function.

Individual approach to attitude function assumes that individuals differ in dominant attitude function toward same object. In accordance with this, attitude function are frequently operationalized indirectly by measuring some personality characteristic (most often self-monitoring – Snyder & DeBono, 1989; Bazzini & Shaffer, 1995; Lavine & Snyder, 1996; Mellema & Bassili, 1995). However, as Eagly & Chaiken stated (1993) such approach tends to ignore variations in functions across attitude objects and situation. In addition, as Herek (1987) claimed it is plausible that attitudes of one individual can serve completely different function in different domain of attitude objects. Such variations in attitude functions cannot be assessed without focusing directly on attitudes instead of general personal characteristics or attitude objects.

Following these claims there were several attempts to develop some direct measure of an attitude function. For purpose of assessing an attitude function more directly, some researchers used open-ended techniques (Herek, 1987; Shavitt, 1990). Although the work of Herek (1987) and Shavitt (1990) demonstrates that open-ended measures can be used for assessing attitude functions this methods are time-consuming and vulnerable to scorer biases (Eagly & Chaiken, 1993). Because of this, a few attempts to develop a measure of attitude function are direct and more objective.

First attempt is conducted also by Herek (1987) which developed direct measure for assessing function of attitudes toward homosexuals or more generally toward stigmatized

groups. Herek's (1987) Attitude Function Inventory (AFI) contains 10 items designed to assess four attitude functions: Experiential-Schematic, Defensive, Value-Expressive and Social Expressive. Herek (1987) confirmed expected factor structure of the instrument and demonstrated expected pattern of relationship between four attitude functions scores with personality measures related to attitude functions (defense mechanisms, self-consciousness and self-monitoring) thus presented preliminary evidence for the AFI's validity. However, the internal consistency for attitude functions scores were only moderate (Alfa coefficients were in range from .41 to .82).

Another direct objective measure of attitude function was developed by Clary, Snyder, Ridge, Miene, and Haugen (1994) related to "volunteering" as attitude object. Based on conceptual analyses of the function served by attitudes and beliefs about volunteering Clary et al. (1994) developed objective self-report measure designed to tap the extent to which people's attitudes toward volunteerism reflect each of the Knowledge, Social-adjustive, Value-expressive, Ego-defensive and Utilitarian functions. Clary et al. (1994) presented data about satisfactory reliabilities for the five function measures, but there were no data about construct validity of the scales. In their subsequent study related to volunteerism Clary et al. (1998) develop and validated instrument designed to measure six functions served by volunteerism itself.

Thus, contemporary research has made significant progress in the operationalization of attitude function. In accordance with supposed three main source of variation in motivational base of attitudes (situation, person and object), attitude functions have been operationalized in different ways. For example, by manipulating situational characteristics, by selecting attitude objects with supposed motivational base, by measuring some personality characteristic (supposedly related to attitude functions) or more directly by open-ended measure of attitude function or objective self-report measures. Nevertheless, limitation of these rare direct objective self-report measures of attitude functions lies in the nature of these scales that are idiosyncratic to specific attitude object or domain.

#### *Aims and hypotheses*

In the present article, we report on the development and validation of direct self-report measure of attitude function. In constructing measure of attitude functions, we limit the scope of the instrument to three of the five main attitude function mentioned earlier. Namely, our attitude function measure is intended to capture instrumental, value-expressive and social adjustive attitude function. In other words, we did not intend to capture object appraisal and ego defensive functions. As we stated earlier, it has been assumed that all attitudes serve object appraisal function, so the salience

of this function supposedly do not significantly vary across different attitude objects. On the other hand, ego-defensive needs served by ego/defensive attitudes are according to their definition more unaware, so we thought that self/report measure is not appropriate way for assessing this type of attitudinal motivational base.

Given the limitation of existing direct measures of attitude function, that these scales are designed to capture the attitude functions of a single object and are not readily applicable to other objects, we tried to construct general attitude function measure that can be applied to different attitude objects. Because of that, in this study we used two specific attitude objects e.g. "voting" and "condom use". We selected these two attitude objects because it could be expected that they differ in motivational base, while in the same time they are specific and personal and/or socially consequential types of behavior. Related to difference in motivational base of attitudes toward these two objects, attitude toward condom use was select as attitude with assumed dominant instrumental function, and attitude towards voting as a dominantly value-expressive attitude. Thus, with combining object centered approach to operationalization of attitude function with individual centered approach, measuring attitude functions towards these two behaviors enables us to examine additionally validity of constructed direct general attitude function measure. The specific aims and hypotheses of this study are as follows:

First, to examine the factor structure of constructed attitude function measure. We expected to confirm existence of three separate factors reflecting instrumental, value-expressive and social adjustive functions of attitude toward condom use and attitude toward voting.

Second, to verify hypothesis about (possible) differences between specific attitude functions (instrumental, value-expressive and social adjustive) within one attitude object, and between two attitude objects (condom use and voting). Related to attitude object "condom use" we expected that instrumental function should be highest and in the same time, it should be higher than instrumental function of attitude toward voting. Related to attitude object voting we expected value-expressive function to be highest and in the same time higher than instrumental function of attitude toward condom use.

Third, to evaluate the validity of constructed attitude measure we conducted regression analyses to asses the predictivity of three attitude functions for general attitude. We expected that relative importance of three attitude functions, as predictors of general attitude will be different for two attitude objects. In accordance with expected difference in motivational bases of attitude toward condom use and attitude toward voting, we expected that instrumental function would be most significant predictor of attitude toward condom use, while value-expressive function would be most important predictor of attitude toward voting.

## METHOD

### *Participants and procedure*

Total of four hundred forty-two ( $N = 442$ ) students participated in study which encompass two independent samples. Two hundred thirty-one students ( $n = 231$ , 72% women) from six college at the University of Zagreb (first year of college) filled out instruments related to attitude object "using condoms". Two hundred and eleven ( $n = 211$ , 58% women) students from four colleges at the University of Zagreb (same as the colleges in study related to attitude object "using condoms") participated in the study related to attitude object "voting" (third year of college 42.4%, first year 29.7%, second year 12%, fourth year 15.8%). Students participated in groups between 30 and 50, with each participants completed a questionnaire. In addition to attitude measure and attitude functions measure (described bellow) there were also some other instruments not relevant for this study so we will not discuss them further.

### *Instruments and variables*

Attitude measure consisted of five semantic differential scale answered on 7-point bipolar scales. Because attitude was operationalized as a general evaluative index we used Croatian translation of four general word pairs suggested by Crites, Fabrigar, and Petty (1994) *bad-good*, *like – dislike*, *desirable-undesirable*, *negative-positive*. In addition to mentioned four pairs suggested by Crites et al. (1994), we added one more pair *acceptable-unacceptable*. The five items were highly correlated. Principal component analyses revealed one component (eigenvalue greater than one) which accounted for 60.6% variance of attitude toward condom use, and 67.6% variance of attitude toward voting. Internal consistency is satisfactory for both attitude object ("condom use"  $\alpha = .82$ ,  $n = 228$ , "voting"  $\alpha = .88$ ,  $n = 210$ ), although lower than in other studies that used only four items (Crites et al., 1994; Simons & Carey, 1998.). Total score resulted from averaging scores on the five scales, such that individual's score could range from 1 to 7, with higher score indicating more positive attitude toward „condom use“ or „voting“. For both attitude objects variability of responses were similar and satisfactory. Participants attitude toward condom use as well as attitude toward voting are positive in average, and ANOVA did not reveal significant difference between two attitude objects (condom use  $M = 5.6$ ,  $SD = 1.17$ , voting  $M = 5.8$ ,  $SD = 1.15$ ,  $F(1,436) = 3.5$ , n.s.).

Attitude functions were operationalized by direct measure of attitude function. Constructed attitude function measure was intended to assess three attitude functions: instrumental, value-expressive and social adjustive.

Attitude function measure consisted of 22 items, (selected from pool of 26 items based on the results of factor analyses

in the pilot study  $n = 140$ ) for example, “*My attitude toward ... talks a lot about me as a person*” (the items are listed in Table 1). Respondents were asked to indicate how important each of 22 statements is as actual or possible reason for their attitude, using a response scale ranging from 1 (*not at all important*) to 7 (*extremely important*). Such direct measure of attitude function was constructed following direct measure of function constructed by Clary et al. (1994) related to volunteering.

## RESULTS AND DISCUSSION

Main tenet of functional approach to attitudes is that knowing the motivational base of attitudes or different functions that specific attitudes serve is necessary precondition for successfully changing attitude in question (e.g. functionally matching hypothesis). Thus, primary concern of functional approaches to attitudes is identifying their motivational base, in other words successfully measuring, or manipulating attitude functions. Absence of valid procedures for identifying attitude functions has been long-term characteristic of functional approach, moreover, according to many authors operationalization issues have been one of the main reason why early functional approach was not pursued seriously for almost thirty years (Tesser & Shaffer, 1990; Shavitt, 1989; Eagly & Chaiken, 1993).

Although today there is variety of different ways for attitude function operationalization, it does not mean that measurement issues related to attitude function have been successfully resolved. Firstly, on the general level, one of the limitations of contemporary approach to operationalization of attitude function is absence of systematic investigations of the relationships between different measures or manipulation of attitude functions. On a more specific level, there are unresolved or ignored problems with some type of measure. For example, with regard to personality characteristic of self-monitoring, as the most often used indirect personality measure of social adjustive and value-expressive attitude function, it should be noted that some data suggests that the attitudes of low self-monitoring individuals serve a utilitarian function, and not only value-expressive function (Snyder & DeBono, 1985). Additionally, studies had confirmed problems with the factor structure of self-monitoring scale (Lennox & Wolfe, 1984). On the other side, direct open-ended measures of attitudes' functions are times consuming and susceptible to biases, while rare close-ended measures are idiosyncratic to specific attitude object and sometimes without adequate reliability or sufficient data about validity (Eagly & Chaiken, 1993; Crites et al., 1994; Herek, 1987, Clary et al., 1994).

This study was conducted to determine the utility of constructed general direct self-report measure of instrumental, value-expressive and social adjustive attitude function.

## Factor Analysis

Principal component analysis for both attitude object resulted with four components with eigenvalues greater than 1, explaining 64% variance of attitude toward condom use, and 62% of variance of attitude toward voting. In addition, the resulting scree plot for both attitude objects indicated three-factor solution (59% explained variance - “condom use” and 57% - “voting”), so we performed principal component analysis with oblique rotation to a preselected three-component solution (Table 1.) Similar to previous factor analyses of direct measures of attitude function oblique rotation was used ( $\delta=0$ ) (Herek, 1987, Clary et al., 1989), although varimax rotation results were also examined and found to be very similar.

As can be seen in Table 1, items from each scale loaded on their intended component and did not load with items from different scales (the only exception are item 18 - “voting” which loaded with items from social adjustive scale too, and item 16 - “condom use” which loaded with items from value-expressive scale too Table 1). Thus, factor analyses resulted in clear and interpretable structure. The structure of our direct measure of attitude function is almost identical for two different attitude objects and with two independent samples. It should be noted that, although factor analyses resulted in nearly perfectly clear structure thus providing evidence that components were distinctive corresponding to three supposedly distinct attitude functions, intercomponent correlations are moderate (in range between .30 to .54) suggesting that three component are not completely independent. Also, these correlation are higher than intercomponent correlations revealed in Herek's analyses of his Attitude Function Inventory (1987) where all intercomponent correlations were less than .25, or Clary's et al. (1998) analyses of Volunteer function inventory (intercorrelation among scales was .34 in Study 1 and .41 in Study 2).

## Discriminant validity of attitude function scales

Difference in the salience of attitude functions within and between two attitude object

In order to assess discriminant validity of attitude function scales the mean scores on each scale were compared within and between each attitude object. As we stated in introduction, individual attitude can simultaneously serve multiple functions. In addition, in accordance with object-centered approach attitude object is one of the sources of variation in attitude function. Thus, we can expect different salience of different attitude functions within one attitude object as well as between two different attitude objects.

Related to attitude object “*condom use*” we expected that instrumental function should be highest and in the same time, it should be higher than instrumental function of attitude toward *voting*. We expected that value-expressive func-

Table 1  
Factor Pattern Matrix (principal-component analysis, Oblique rotation, three factors specified-scrree test)

Item content	Attitude object					
	Condom use ( $n = 231$ )			Voting ( $n = 211$ )		
	PC1	PC2	PC3	PC1	PC2	PC3
<b>Value-expressive function</b>						
1. My attitude toward ----- speaks a lot about me as a person	.61				-.75	
6. Based on my attitude toward ----- it can be concluded how I am as a person	.74				-.68	
8. Declaring my attitude toward ----- I present some image about my self.	.71				-.56	
10. My attitude toward ----- represents my general principles and values.	.81				-.82	
13. With my attitude toward ----- I express own values and life principles.	.83				-.84	
15. My attitude toward ... enable behavior in accordance with my values.	.63				-.75	
18. Through my attitude toward ... others can figure real me.	.82				-.53	.39
22. My attitude towards ... is in accordance with my self-image.	.85				-.86	
<b>Instrumental function</b>						
2. I have personal interest related to .....		.64		.58		
4. ... has connected with something I want, need or should need.		.60		.58		
7. .... is or can be related with my interests.		.63		.58		
11. .... can be beneficial or harmful for me		.82		.82		
14. .... has or can have significant consequences for me.		.66		.82		
16. .... can reflect on my life.	.39	.52		.85		
20. By ... I can achieve some wanted or I can avoid some unwanted consequences.		.75		.70		
<b>Social adjustive function</b>						
3. By declaring or not declaring my attitude towards ... I can manage with positiveness or negativeness of my relationships with others.			.59			.43
5. My attitude toward ... is important to close persons.			.62			.67
9. My attitude toward ..... has a consequences on my relationships with others.			.65			.74
12. By ... I can manage my relationships with others.			.57			.65
17. By my attitude toward ... I can avoid unnecessary misunderstanding with others.			.55			.54
19. My attitude toward ... is important for my friendships.			.63			.64
21. Changing my attitude toward ..... should have consequences on my relationships with close persons			.80			.78
Eingenvale after rotation						
Explained variance after rotation						

Note. Only loadings greater than .30 are shown. PC1 to PC3- principal component.

tion of attitude toward *voting* would be highest, and in the same time higher than value-expressive function of attitude toward *condom use*. Table 2 contains summary statistics for attitude function scales for both attitude objects.

For attitude toward „*condom use*“, scores on instrumental function scale were higher ( $M = 4.9$ ), than on value-expressive scale ( $M = 3.7$ ), which in turn exceeded the social adjustive scale ( $M = 3.12$ ). Each matched pair t test was significant at  $p \leq 1\%$ . (Ins>Ve,  $t(220) = 13.95$ ,  $p < .001$ ; Ins>Sa,  $t(216) = 19.84$ ,  $p < .001$ ; Ve>Sa,  $t(220) = 7.08$ ,  $p < .001$ ). For attitude toward „*voting*“ scores on value-expressive scale ( $M = 3.8$ ) and instrumental scale ( $M = 3.7$ ) were similar ( $t(203) = .64$ ,  $p = .52$ ), and higher than on social adjustive scale ( $M = 2.7$ ) (Ve>Sa,  $t(206) = 12.24$ ,  $p < .001$ ; In>Sa,  $t(202) = 11.99$ ,  $p < .001$ ).

Regarding the difference between two attitude objects, result for instrumental function is in the predicted direction

since instrumental function of attitudes toward „*condom use*“ is significant higher than instrumental function of attitudes toward „*voting*“ ( $4.9 > 3.7$ ,  $F(1,425) = 81.99$ ,  $p < .001$ ). On the other side, contrary to the expectation ANOVA did not reveal significant difference in the importance of value expressive function between two analyzed attitude objects ( $3.7 = 3.8$ ,  $F(1,433) = .97$ , n.s.). However, significant difference was found for social adjustive function, given that the attitudes towards „*condom use*“ were accompanied with higher social adjustive function than attitude toward „*voting*“ ( $3.1 > 2.7$ ,  $F(1,428) = 12.27$ ,  $p < .01$ ).

Thus, the results of these analyses only partially confirm a discriminant validity of attitude function scales. Namely, we confirmed instrumental attitude function as a most important function of attitude toward condom use, as well as, greater importance of instrumental function for attitude toward „*condom use*“ than for attitudes toward „*voting*“.

Table 2

Descriptive statistics for attitude functions scales with alfa reliabilities

	Condom use			Voting		
	VE	INS	SA	VE	INS	SA
<i>N</i>	226	222	222	209	208	205
<i>M</i>	3.66	4.90	3.12	3.80	3.71	2.71
<i>SD</i>	1.549	1.348	1.308	1.35	1.337	1.140
range	1-7	1-7	1-6.14	1-7	1-7	1-6
$\alpha$	.92	.84	.85	.90	.86	.82

Note. VE- value-expressive attitude function, INS- instrumental attitude function, SA- social adjustive attitude function.

However, we did not confirm value-expressive function as most pronounced function of attitudes toward voting, neither the expected greater importance of values-expressive function for attitudes toward "voting" compared to attitudes toward "condom use". However, it should be noted that expected functional characteristic of two attitude objects used in this study are based primarily on logical analyses of these attitude object following contemporary theories of attitude function. Explicitly, according to the object-centered approach to attitude function there is distinction between instrumental and symbolic attitudes. Symbolic attitudes are based on concerns about self-image and ability of an attitude object or attitude to promote or threaten personally important values, while instrumental attitudes are based on concerns about self-interest, so we expected that attitude toward condom use will, primary serve utilitarian function, and attitude toward voting will primary serve value-expressive function. In addition, according to Lavine and Snyder (1996; 2000) because voting may provide an opportunity to express personal important values, or attitudes towards the candidates and toward salient campaign issues attitudes and behaviors related to voting probably serve primarily value-expressive and social adjustive function.

Related to mean values of measured attitude function depicted in table 2 we should mention additional possible limitation of used attitude function measure. In particular, as can be seen from table 2 the mean values for three attitude function scale for both attitude objects are in range between 2.7 (social adjustive function of attitude toward voting) to 4.9 (instrumental function to attitude toward condom use). Bearing in mind that attitude function scale midpoint were 3.5, generally speaking we can say that social adjustive concerns in general are not important as a reason for our participants attitudes toward voting  $M = 2.2$  or attitude toward condom use  $M = 3.1$ , because both results were lower than scale midpoint. Possible reason might be that people generally might be reluctant to admit that their attitudes fulfill social adjustive goals, because such admittance might make the attitudes seem superficial and insincere (Maio & Olson, 2000b). But in addition to social adjustive scale, average

scores for other two attitude functions are relatively low too, in fact only average score on instrumental function of attitudes towards condom use is relatively high  $M = 4.9$ , which might mean some limitation of the attitude function measure. One possible explanation for this obtained generally low attitude functions scores might be that attitude objects used in this study generally are not so involving for students (participants in our study), or in other words that our participant's attitude toward condom use or voting do not have strength motivational base. Although this explanation might seem plausible with regard to attitude toward voting, because in general youth are age group with lowest interest for politics and lowest voting participation, it is less plausible with regard to condom use as attitude object that is personally consequential behavior especial for youth. In addition previous study (Franc, 2001) with data from the same two sample of participants revealed that attitude toward condoms is rather important to participants  $M = 2.8$  (on scale from 1 to 4) and significantly more important than participants attitudes toward voting ( $M = 2.6$ ,  $F(1, 438) = 7.8$ ,  $p < .05$ ).

Another possibility might be that constructed attitude function is not enough involving for our participants, so their responses are not good representation of pure motivational base of their attitudes. Unfortunately, on the available data, we cannot answer on this question but it should be addressed in possible future work with this instrument.

#### *Relationship between attitude functions and general attitude - regression analyses*

In order to additionally evaluate the discriminant validity of three attitude function scales we conducted regression analyses to assess the predictivity of these attitude function for general attitude. We expected that relative importance of three attitude functions, as predictors of general attitude will be different for two attitude objects. In accordance with expected difference in motivational bases of attitude toward

Table 3

Main findings of regression analyses predicting general attitude toward condom use ( $n = 231$ ) and attitude toward voting ( $n = 211$ ) with attitude function scales as predictors

	Condom use			Voting		
	$\beta$	rp	r	$\beta$	rp	r
Instrumental	.42**	.35	.39	.15	.13	.23
Value-expressive	.03	.02	.20	.23*	.20	.27
Social adjustive	-.10	-.08	.13	-.08	-.07	.11
	$R = .40$ , $R^2 = .16$			$R = .30$ , $R^2 = .09$		
	$F(3,227) = 14.1$ , $p < .001$			$F(3,207) = 6.56$ , $p < .001$		

Note.  $\beta$ -standardized regression coefficients, p- significance of  $\beta$ , rp- partial correlation coefficients, r - zero order correlations.

\*\* $p < .001$ . \* $p < .01$ .

condom use and attitude toward voting, we expected that instrumental function would be most significant predictor of attitude toward condom use, while value-expressive function would be most important predictor of attitude toward voting.

A two multiple regression analyses were conducted with the general attitude score as the dependent variable and a three attitude functions scores as predictors, separately for two attitude objects. Main findings of these analyses are depicted in Table 3.

Results of regression analyses show that measured attitude function accounted for 16% of the variance of attitudes toward using condoms and 9% of variance of attitudes toward voting (Table 3). More important, for attitude toward condom use instrumental function was the sole significant predictor ( $\beta = .42, p < .001$ ). In contrast, for attitude towards voting election the sole significant predictor was value-expressive function ( $\beta = .23, p < .001$ ). Such different results of regression analyses for two attitude objects are in accordance with assumed difference in motivational base of attitudes towards two objects and in line with object centered approach to attitude function, since they suggest that some objects (e.g. condom use) are distinctly instrumental, whereas others (voting) are symbolic. Stated differently, these results suggest that general attitude toward voting was dominated by value expressive concerns, while attitude toward condom use was dominated by instrumental concerns. In the domain of consumer product, Shavitt (1990), using a thought-listing measure of attitude function, found that some products fulfill primary a single attitude function, for example, air conditioners fulfill instrumental function, while perfume fulfill symbolic function.

On the other side, generally speaking confirming the discriminant validity of different predictors imply that each of them account for some portion of the variance in dependent variable, or in our case that all three function scores are independent predictors of general attitude. Given the absence of direct empirical data about motivational base of attitudes toward condom use as well attitude toward voting, based on available data we cannot conclude whether those results are product of used attitude object or unsatisfactory discriminant validity of constructed scale.

After the obtained results of regression analyses that suggest that instrumental function is only important function of attitude towards condom use, while value-expressive function is solely important function of attitude toward voting we conducted additional factor analyses with extracted not three but only two factors. Related to attitude toward condom use principal component analyses with extracted two factors resulted in one clear factor that loaded all items indented to measure instrumental function, while items indented to measure value-expressive and social adjustive function loaded together on separate factor. In contrast, with regard to attitude toward voting, value-expressive items

loaded separately on one factor while instrumental and social adjustive items loaded together on second factor.

To summarize the findings of this study suggest that constructed scales might be useful in assessing the instrumental, value-expressive and (in lesser extent) social adjustive function of existing attitudes, although additional studies are needed for more compelling evidence. Firstly, factor analyses conducted on two different samples and with two different attitude objects revealed congruent factor solutions, suggesting a reliable and replicable expected three-factor structure. In addition, resulted scales have satisfactory high reliability that is comparable (within and between two different attitude objects). Previous researchers have, for the most part develop or used scales that are specific to single attitude object, whereas potential of this scales is that they can be applied to a wide range of attitude objects.

On the other side, regression analyses findings regarding the discriminant validity of the three attitude function scales are not so straight. It was expected that instrumental attitude function would be most important predictor of attitudes toward using condoms, while value-expressive function will be most important predictor of attitude toward voting. However, results were only partially in accordance with these expectations. Although instrumental function is confirmed as significant predictor of attitude toward condom use, it is confirmed as only significant predictor, but not as most important predictor, as we expected. In addition, value-expressive function of attitudes towards voting was confirm not as most important predictor, but as only significant predictor of general attitudes towards voting. These results can be accepted as preliminary evidence of dicriminant validity if it is supposed that used attitude objects fulfill primary a single attitude function and that they are functionally consensual attitudes. But, more compelling evidence for the dicriminant validity of the scales would be provided if it were shown that for some attitude objects (preferably previously confirmed as multifunctional by some other attitude function measure) all three function are significant, although, differently important predictors of general attitude. In addition, more compelling evidence for the validity of the scales would be provided if it were shown that scales could differentiate between instrumental, value-expressive and social adjustive attitudes that were newly established with an experimental manipulation or are sensitive for attitude function salience manipulation related to existing attitudes.

## REFERENCES

- Bazzini, D. G., & Shaffer, D. R. (1995). Investigating the social-adjustive and value-expressive functions of well-grounded attitudes: Implications for change and for subsequent behavior. *Motivation and Emotion*, *19*, 279-305.
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stuaqs, A. A., Haugen, J. A., & Miene, P. K. (1998). Understanding

- and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74, 1516-1530.
- Clary, E. G., Snyder, M., Ridge, R. D., Miene, P. K., & Haugen, J. A. (1994). Matching messages to motives in persuasion: A functional approach to promoting volunteerism. *Journal of Applied Social Psychology*, 24, 1129-1149.
- Crites, S. L. Jr., Fabrigar, L. R., & Petty, R. E. (1994). Measuring the affective and cognitive properties of attitudes: Conceptual and methodological issues. *Personality and Social Psychology Bulletin*, 20, 619-634.
- Eagly, A., & Chaiken, S. (1993). *The psychology of attitudes*. Forth Worth, TX: Harcourt Brace Jovanovich.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure & function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey. (Eds.) *The Handbook of Social Psychology, Vol. 1*. (pp. 269-322). McGraw-Hill and Oxford University Press. Fourth Edition.
- Fazio R. H. (2000). Accessible attitudes as tools for object appraisal: Their costs and benefits. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 1-36). Hillsdale, NJ: Erlbaum.
- Herek, G. M. (1987). Can function be measured? A new perspective on the functional approach to attitudes". *Social Psychology Quarterly*, 50, 285-303.
- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163-204.
- Lavine, H., & Snyder, M. (1996). Cognitive processing and the functional matching effect in persuasion: The moderating role of subjective perceptions of message quality. *Journal of Experimental Social Psychology*, 32, 580-604.
- Lavine, H., & Snyder, M. (2000). Cognitive processes and the functional matching effect in persuasion: Studies of personality and political behavior. In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 97-131). Hillsdale, NJ: Erlbaum.
- Lennox, R. D., & Wolfe, R. N. (1984). Revision of the self-monitoring scale. *Journal of Personality and Social Psychology*, 46, 1349-1364.
- Lundgren, S. R., & Prišlin, R. (1998). Motivated cognitive processing and attitude change. *Personality and Social Psychology Bulletin*, 24, 715-726.
- Maio, G. R., & Olson, J. M. (1994). Value-attitude-behavior relations: The moderating role of attitude functions. *British Journal of Social Psychology*, 33, 301-312.
- Maio, G. R., & Olson, J. M. (1995a). Involvement and persuasion: Evidence for different types of involvement. *Canadian Journal of Behavioral Science*, 27, 64-78.
- Maio, G. R., & Olson, J. M. (1995b). Relations between values, attitudes, and behavioral intentions: The moderating role of attitude function. *Journal of Experimental Social Psychology*, 31, 266-285.
- Maio, G. R., & Olson, J. M. (2000a). *Why we evaluate: Functions of attitudes*. Mahwah, NJ: Lawrence Erlbaum Inc.
- Maio, G. R., & Olson, J. M. (2000b). What is a value-expressive attitude? In G. R. Maio & J. M. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 249-270). Mahwah, NJ: Lawrence Erlbaum Inc.
- Mellema, A., & Bassili, J. N. (1995). On the relationship between attitudes and values: Exploring the moderating effects of self-monitoring and self-monitoring schematicity. *Personality and Social Psychology Bulletin*, 21, 885-892.
- Petty, R. E., & Wegener, D. T. (1998). Attitude change: Multiple roles for persuasion variables. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 323-390). New York: McGraw-Hill.
- Shavitt, S. (1989). Operationalizing functional theories of attitude. In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.), *Attitude structure and function* (pp. 311-337). New Jersey: Hillsdale.
- Shavitt, S. (1990). The role of attitude objects in attitude functions. *Journal of Experimental Social Psychology*, 26, 124-148.
- Simons, J., & Carey, K. B. (1998). A structural analysis of attitudes toward alcohol and marijuana use. *Personality and Social Psychology Bulletin*, 24, 727-735.
- Snyder, M., & DeBono, K. (1989). Understanding the functions of attitudes: Lessons from personality and social behavior (pp. 339-360). In A. R. Pratkanis, S. J. Breckler, & A. G. Greenwald (Eds.) *Attitude Structure and Function*. New Jersey: Hillsdale.
- Tesser, A., & Shaffer, D. R. (1990). Attitudes and Attitude Change. *Annual Review of Psychology*, 41, 479-523.