

On the (In)Compatibility of Attitudes Toward Peace and War

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## Abstract

Although attitudes toward peace and war are usually treated as two opposite poles of one dimension, in this paper we argue that they may represent two distinct dimensions. To investigate this idea, we developed and tested a new balanced measure, the Attitudes Toward Peace and War (APW) Scale, in three studies ( $N = 4,742$ ) in the US and Denmark.

Exploratory and confirmatory factor analyses showed that attitudes toward peace and war formed two distinct, though negatively related, factors. Structural equation modeling showed that antecedents of attitudes toward peace included egalitarian ideological beliefs, the values of international harmony and equality, and empathic concern for others, and consequences included intentions to engage in peace-related activities. On the other hand, antecedents of attitudes toward war included authoritarian ideological beliefs, the values of national strength and order, and less personal distress, and consequences included intentions to engage in warlike activities. Results also showed that political affiliation had an impact on the relationship between peace and war attitudes, with conservatives less likely to find the attitudes incompatible. The findings support the view that attitudes toward peace and war represent two distinct dimensions.

*Keywords:* peace, war, attitudes, values, ideology, political orientation

## On the (In)Compatibility of Attitudes Toward Peace and War

“I just want you to know that, when we talk about war, we're really talking about peace.” (Bush, 2002)

Can peace and war be equivalent? Or is Bush's statement an example of Orwellian Newspeak as critics have argued? Although Bush was heavily criticized by many anti-war critics for arguing that his administration's goal was actually peace, such arguments have been frequent in history. In fact, the idea that war is not opposed to peace is present in the Charter of the United Nations (see Chapter 7, Articles 42 and 51), which allows for war that can lead to peace (United Nations, 1945). Therefore, the idea that peace and war are not necessarily opposed to each other, and that consequently one can be pro-peace and pro-war at the same time is not novel.

Nevertheless, since early work on attitudes toward peace and war, psychologists have measured them as one dimension, suggesting that positive attitudes toward peace are incompatible with positive attitudes toward war. For example, around 80 years ago, Droba (1931) developed the Scale of Militarism-Pacifism, which measured generalized attitudes toward peace and war. The focus of the measure was on attitudes toward war, both favorable (e.g., “War is ennobling and stimulative of the highest and best qualities of humankind.”) and unfavorable (e.g., “Under the scourge of war a nation has no opportunity for cultural development.”). There were also several items that partly focused on attitudes toward peace (e.g. “Because right may be more important than peace, war may be the lesser of two evils”, “It is not in war but in peace and prosperity that our worst vices develop and grow rank.”). Even these items, however, pitted war against peace.

Other psychological measures and conceptualizations have also indicated that concepts

of peace and war are opposite to each other, and that therefore, attitudes toward them are opposite to each other. This is sometimes explicit (e.g., Stagner, 1942; Vail & Motyl, 2010; W. Wagner, Valencia, & Elejabarrieta, 1996), and at other times implicit (e.g., Carter, 1945; Cohrs & Moschner, 2002; Porterfield, 1938; Thurstone, 1932). These conceptualizations contrast with the view that there may be individuals who value (or oppose) both peace and war at the same time.

A number of peace researchers have argued that peace and violence are not necessarily opposites (Galtung, 1964, 1981, 1985; see also Christie, 1997, 2006; Christie, Tint, R. V. Wagner, & Winter, 2008; R. V. Wagner, 1988). For example, Galtung distinguished between two main dimensions in these concepts: one that ranges from direct violence (i.e., overt violence, such as war, that involves immediate attack on someone's well-being and can quickly harm and destroy) to its absence (negative peace), and another that ranges from structural violence (i.e., covert violence that harms and destroys individuals slowly through societal arrangements, such as exploitation and subjugation) to its absence (i.e., positive peace that involves social justice and harmony). Other theorists and researchers (e.g., Marchal, 2002) have also argued that peace and war are not mutually exclusive realities<sup>1</sup>.

Given that war and peace are not mutually exclusive realities, we also argue here that people's attitudes toward peace and war may represent two distinct, albeit negatively correlated, dimensions. We assume that attitudes toward peace are primarily (though not solely) concerned with acceptance of social harmony and equality (or rejection of structural

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<sup>1</sup> It is important to note that although we acknowledge this literature, the present paper is focused on people's attitudes toward these phenomena – and these attitudes can be affected by people's representations of peace and war in mutually exclusive ways (e.g., peace as the absence of war or violence, Galtung, 1969). Indeed, this seems to be the way that many psychologists have often conceived of attitudes toward peace and war (for a brief review and discussion, see also Van der Linden & Licata, in press).

kinds of violence), and attitudes toward war are primarily concerned with acceptance of direct kinds of violence (vs. rejection of direct kinds of violence). The negative correlation stems partly from the complexity of the peace concept because individuals may represent peace, at least in part, as opposition to direct violence (negative peace). We argue here, however, that although attitudes toward peace and war are expected to be negatively related under most circumstances, they form two distinct dimensions. In this way, we can expect that people can fall into largely four different kinds of groupings: the militarists (favor war, reject peace), the pacifists (favor peace, reject war), the warlike peaceniks (favor both peace and war), and the unconcerned (reject both peace and war). It is important to note that although we expect that some individuals have relatively incompatible attitudes toward peace and war, for some individuals the attitudes can be relatively compatible (the warlike peaceniks would care about both, and the unconcerned do not give much value to either). In a similar way, researchers showed that although conservatism and liberalism tend to be generally opposed in people's minds, there are certain individuals who may have positive attitudes toward both (see Federico, 2007; Sidanius & Duffy, 1988).

Given the two dimensions, we posit that attitudes toward peace and war, therefore, may have unique antecedents and consequences. More specifically, we posit theoretically that attitudes toward peace and war are outcomes of different ideologies, values, and personality characteristics that people possess. First, we argue that attitudes toward peace are primarily and distinctly related to the abolition of structural kinds of violence. Accordingly, individuals who endorse ideologies and values that are highly egalitarian are more likely to be concerned with peace than those who want to promote inequality and structural violence. A widely studied ideological belief that approves of intergroup inequalities and dominance is social dominance orientation or SDO (Pratto, Sidanius, Stallworth, & Malle, 1994). Indeed, research

shows that people high in SDO tend to approve of different kinds of hierarchy enhancing attitudes, including warlike and militaristic attitudes, but only when these can enhance or preserve group-based hierarchies, not when they can abolish them (Henry, Sidanius, Levin, & Pratto, 2005; Pratto et al., 1994; Sidanius & Pratto, 1999). The values that favor harmony and equality, which Braithwaite (1997, 2009a, 2009b) calls international harmony and equality (e.g., “a good life for others”, “international cooperation”, “greater economic equality”), should also be related to attitudes to peace. Finally, it is possible that empathy, which has been linked to attitudes toward peace and war in the past (McFarland, 2005; Smith, 2004; White, 1987), should be related primarily to attitudes toward peace, especially its facet of empathic concern for others (Davis, 1983), as it is most directly concerned with sympathy for the suffering of the unfortunate.

On the other hand, attitudes toward war should be primarily and distinctly related to defense of one's group and its interests, and preference for an aggressive way of dealing with outgroup threats. Given that individuals who adopt a right-wing authoritarian (RWA) ideology tend to see the world as dangerous and threatening and tend to be aggressive in their outgroup attitudes (Altemeyer, 1998; Duckitt, 2001; Duckitt, Bizumic, Krauss, & Heled, 2010), it is possible that RWA may be primarily related to favorability toward war as an instrument to resolve intergroup conflicts and alleviate threats (see also McFarland, 2005). In addition, the values of national security and power, which Braithwaite (1997, 2009a, 2009b) calls national strength and order (e.g., “national greatness”, “national security”, “national economic development”), may be primarily related to attitudes toward war. Individuals with such values tend to be concerned with promotion of national group interests, power and security, and should approve of wars as these can be used for such purposes. Although empathy has been related to both attitudes toward peace and war, it is possible that an aspect that has most to do

with opposition to war is personal distress (Davis, 1983), given the extreme and dramatic harm that results from wars, and strong anxiety in threatening circumstances associated with this aspect of empathy.

One view for the link between values, ideological beliefs, and attitudes assumes that values, as guiding principles, precede ideological beliefs (but not empathy), which in turn influence more specific attitudes, such as those toward peace and war. Indeed, research by Heaven and Connors (2001) showed that RWA is primarily related to the values of national strength and order, whereas SDO is primarily related to the values of international harmony and equality. Additionally, Heaven, Organ, Supavadeeprasit, and Leeson (2006) showed that these values preceded RWA and SDO, which in turn preceded attitudes toward war in Iraq. However, this can be contrasted with a more traditional model of the relationship between ideological beliefs and values, which would assume that SDO and RWA might predispose people to hold specific kinds of values (cf. Altemeyer, 1998, 2006).

Finally, attitudes toward peace and war may also have distinct consequences. Accordingly, attitudes toward peace and war may have differential implications for people's willingness to engage in peace-related and war-related behaviors, with attitudes toward peace being primarily related to a willingness to promote peace, and attitudes toward war to willingness to engage in warlike behaviors.

To test the ideas about the dimensionality of attitudes toward peace and war and its potential causes and consequences, we conducted a series of studies. In light of the preceding arguments, we expected that attitudes toward peace and attitudes toward war would represent two negatively related dimensions. We expected that positive attitudes toward peace would be primarily related to low SDO, high empathic concern, and endorsement of values of international harmony and equality, whereas positive attitudes toward war would be primarily

related to high RWA, low personal distress, and the values of national strength and order. We expected that ideological beliefs, personality, and values would precede attitudes, but we left the direction of the relationship between ideology and values open to investigation. We also expected that attitudes toward peace would predict a willingness to promote peace, and attitudes toward war a willingness to engage in war.

To investigate these expectations, we developed a new scale that explicitly measures attitudes toward peace and war as two concepts, without directly positioning them against each other or conflating them in a certain way. Using the measure, we conducted three studies in the United States and Denmark. Study 1 took place in 2003, Study 2 in 2003 and 2004, and Study 3 in the period from 2007 to 2010.

## Study 1

### Method

**Participants.** Ninety-eight participants (53 males, 54%), primarily undergraduate students, from a city in the Midwest of the US volunteered in the study. Their mean age was 23.14 ( $SD = 6.75$ ), and there were 77 White Americans (79%), six African-Americans (6%), five Asians or Pacific Islanders (5%), and ten participants (10%) of other ethnicities in the sample.

**Materials and Procedures.** To measure attitudes toward peace, we constructed a new measure, as we did not find an existing one that is directly concerned with such attitudes. The scale construction went through several stages of writing, evaluating, and re-writing items. We selected what appeared to be the best five protrait (e.g., “Living in peace is more important than anything else”) and best five contrait items (e.g., “People who place a high

value on peace are usually weak and cowardly.”) for the final measure. To measure attitudes toward war, a shorter version of an existing scale, the Attitudes Toward War Scale (Stagner, 1942), was included. The scale consisted of four protrait (e.g., “Although war is terrible, it has some value.”) and four contrait items (“War breeds disrespect for human life.”). We decided to call the potential measure, the Attitudes Toward Peace and War (APW) Scale (see Table 1 for the wording of items).

In addition, we included shortened and balanced eight-item versions of Pratto et al.'s (1994) SDO Scale (e.g., “No one group should dominate in society.” - reversed,  $\alpha = .78$ ), and Altemeyer's (1990, cited in Robinson, Shaver, & Wrightsman, 1999) RWA Scale (e.g., “Obedience is the most important virtue children should learn.”,  $\alpha = .65$ ). We constructed six items to measure pro-peace behavioral intentions (e.g. “I would risk imprisonment to promote peace.”, “I will join a demonstration to promote peace.”), and four to measure pro-war behavioral intentions (e.g., “I will join the military to fight against any country that may pose a threat to my country sometime in the future.”, “If my country goes to war to gain economic advantage, I would join the military to fight for my country.”). All the items measuring pro-peace behavioral intentions were strongly intercorrelated (mean inter-item  $r = .61$ ) and also all the items of pro-war behavioral intentions were strongly intercorrelated (mean inter-item  $r = .64$ ). Therefore, these were averaged to form two separate measures: pro-peace behavioral intentions ( $\alpha = .90$ ) and pro-war behavioral intentions ( $\alpha = .88$ ).

We included two shortened and balanced subscales (each with four items) from Davis's (1983) Interpersonal Reactivity Index (IRI) to measure personal distress (e.g., “I sometimes feel helpless when I am in the middle of a very emotional situation.”,  $\alpha = .66$ ) and empathic concern (e.g., “Sometimes I don't feel very sorry for other people when they are having problems.” - reversed,  $\alpha = .67$ ). Participants rated their agreement or disagreement

with the items on a nine-point Likert scale (-4 - *strongly disagree*, 0 - *neutral*, +4 - *strongly agree*) on all the measures, apart from the IRI subscales, which used a five-point scale (1 - *Does not describe me well*, 5 - *Describes me very well*). The dataset was corrected for missing values (< 1%) using expectation maximization.

## **Results and Discussion**

We tested the structure of the items measuring attitudes toward peace and war using both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). With 98 participants, there were about six participants per variable in the EFA. Although not a large sample, it met Gorsuch's (1983) minimum requirements for EFA: a ratio of 5 participants per measured variable and a sample size of about 100. We ran an EFA with oblimin rotation specifying two factors. Factor 1 explained 28% and Factor 2 explained 12% of variance. As seen in Table 1, the items measuring attitudes toward peace and war generally strongly loaded on their respective factors and there were no cross-loadings higher than .30 (we excluded two items that measured attitudes toward war because of weak loadings and poor performance during an item analysis). The two factors were correlated moderately negatively ( $r = -.38, p < .001$ ), suggesting that attitudes toward peace and war, although opposed to each other, appeared to be distinct.

Next, we conducted CFA, which, as a deductionist procedure, enables model comparisons. Two models were compared: Model 1 (the unidimensional model: the items measuring attitudes toward peace and war loaded on a single latent variable), with Model 2 (the two-dimensional model: the items measuring attitudes toward peace and war loaded on two distinct latent variables). As manifest indicators we used three item parcels based on the items measuring attitudes toward peace (two item parcels consisted of three items and one of

two items) and three item pairs based on the items measuring attitudes toward war. To form item parcels and pairs, we combined items with higher and lower loadings in separate mono-factorial models for each variable (see Brooke, Russell, & Price, 1988), and we also included positive and negative items to control for acquiescence. We used the following indices and criteria for fit:  $\chi^2/df$  values less than 3 (Carmines & McIver, 1981), CFI and NNFI values greater than .90 (Bentler, 1992; Bentler & Bonett, 1980), and RMSEA and SRMR values less than .10 (Browne & Cudeck, 1992).

A covariance matrix of the item parcels and item pairs was submitted to a maximum likelihood procedure. The fit was substantially better for Model 2, which had all fit indices acceptable ( $\chi^2(8) = 7.72, p = .46, \chi^2/df = .97, NNFI = 1, CFI = 1, RMSEA = 0, SRMR = .04$ ), than for Model 1, which had all fit indices unacceptable ( $\chi^2(9) = 55.97, p < .001, \chi^2/df = 6.22, NNFI = .63, CFI = .78, RMSEA = .23, SRMR = .13$ ). The correlation between the two factors in Model 2 was negative ( $r = -.51, p < .001$ ), and all the loadings were strong and significant. This analysis has, therefore, suggested that attitudes toward peace and war represent two distinct dimensions, supporting our expectation.

Table 2 shows the descriptive statistics and intercorrelations of the measures in the study. It is interesting to note that participants on average were slightly positive toward both peace and war (in case we treated them as one dimension, this would be impossible to ascertain). It should also be noted that there were no serious violations of normality (as all kurtosis and skewness values were between -1 and 1). As can be seen, attitudes toward peace were related, as expected, positively to empathic concern and pro-peace behavioral intentions, and negatively to SDO, whereas attitudes toward war were related positively to personal distress and pro-war behavioral intentions. Surprisingly, attitudes toward war also correlated positively with SDO and pro-peace-behavioral intentions, but not with RWA.

Nevertheless, the correlations between the variables were affected by measurement error and the relationships of attitudes toward peace and war with other variables were affected by the intercorrelation of attitudes toward peace and war. Additionally, given the existence of indirect effects, the correlations are not very useful in telling us whether there is support for the proposed model of antecedents and consequences of attitudes toward peace and war. Accordingly, we used structural equation modeling (SEM) to test the proposed model. We used the same procedure for constructing item parcels (with three item parcels loading on each latent variable) and same fit indices as for the model testing the distinction between attitudes toward peace and war.

We initially tested a measurement model, which is a CFA model, in which manifest indicators load on their respective latent variables, and all the latent variables are allowed to correlate. If the measurement model is supported, then one is justified to test a structural regression model. The measurement model indeed had good fit indices:  $\chi^2(224) = 303.20$ ,  $p < .001$ ;  $\chi^2/df = 1.35$ , NNFI = .91, CFI = .93, RMSEA = .06, SRMR = .08. Next, we tested one structural regression model, which posited that SDO and empathic concern lead to attitudes toward peace, which in turn lead to pro-peace behavioral intentions, whereas RWA and personal distress lead to attitudes toward war, which in turn lead to pro-war behavioral intentions. We also allowed for a reciprocal effect between attitudes toward peace and war, and we also modeled the error covariance between their error terms (see Kline, 2004). This model also had good fit indices:  $\chi^2(237) = 327.58$ ,  $p < .001$ ;  $\chi^2/df = 1.38$ , NNFI = .91, CFI = .92, RMSEA = .06, SRMR = .09. However, as seen in Figure 1, not all paths were significant: the path from empathic concern to attitudes toward peace and the path from RWA to attitudes toward war. However, the other paths were as expected. The expected model was therefore partly supported in Study 1.

In general, the findings of Study 1 supported our assumption that attitudes toward peace and war are distinct, given that the multidimensional structural model was a better fit to the data and each dimension was distinctly related to other measured variables. Our findings supported the view that attitudes toward peace are primarily and distinctively an outcome of an ideological belief in intergroup equality (i.e., low SDO). People who strongly value peace appear likely to engage in various behaviors that protect peace, such as investing time and resources to promote it. In contrast, attitudes toward war appear to be an outcome of low dispositional personal distress. Those who value war appear willing to engage in various pro-war behaviors, such as fighting for one's country (in defense of its interests, including purely economic interests). One's favorability to peace does not uniquely predict one's opposition to participate in wars, and one's opposition to war does not uniquely predict one's willingness to promote peace. These findings clearly show the benefit of treating attitudes toward peace and war as distinct.

It is important to note that there were several limitations of the study. The study took place in only one society and in a specific location (in the US Midwest, which is relatively conservative), and two items did not perform well. Accordingly, we set out to develop a better and more comprehensive measure and test it across two societies. In addition, although most of our expectations have been met, we failed to find a significant effect of RWA on attitudes toward war, and although empathic concern was correlated with attitudes toward peace, the effect did not emerge in SEM. Finally, we did not include Braithwaite's (1998) measure of value orientations in the first study, although our hypotheses addressed the role of values in attitudes toward peace and war. Accordingly, we decided to further investigate the dimensionality of attitudes toward peace and war and to refine our measure, the APW Scale, and further test the proposed model across two societies, the US and Denmark.

## Study 2

### Method

**Participants.** In the US sample, 118 undergraduate students (64 males, 54%) from a university in New York City participated in the study. Their mean age was 20.83 ( $SD = 3.77$ ), and there were 73 White Americans (62%), 13 African-Americans (11%), 22 Asians or Pacific Islanders (19%), and ten participants (8%) of other ethnicities in the sample. In the Danish sample, there were 596 undergraduates (349 males, 59%, with 14, 2.35%, failing to state their gender). The mean age was 24.22 ( $SD = 2.54$ ), with 15 participants failing to state their age. We did not collect information about ethnicity in the Danish sample, but the vast majority, if not all, were white Danish (the vast majority of Aarhus University students are white Danish).

**Materials and Procedures.** We included all the items measuring attitudes toward peace and war that performed well in the first study, and constructed nine new items (both protrait and contrait) in the US and ten new items (both protrait and contrait) in Denmark. In both samples, we included the same shortened eight-item measures of SDO (US:  $\alpha = .81$ ; Denmark:  $\alpha = .74$ ) and RWA (US:  $\alpha = .72$ , Denmark:  $\alpha = .69$ ) that we used in Study 1. We also measured six pro-peace behavioral intentions (e.g., “I would join a human barricade to promote peace”), and five pro-war behavioral intentions (e.g., “I could not conceive of a situation in which I would do something to support my country going to war.” - Reversed). As in Study 1, there were relatively strong inter-item correlations for the items measuring pro-peace behavioral intentions (US: Mean inter-item  $r = .35$ ; Denmark: Mean inter-item  $r = .36$ ,  $p < .001$ ), and those measuring pro-war behavioral intentions (US: Mean inter-item  $r = .53$ ,  $p < .001$ ; Denmark:  $r = .40$ ,  $p < .001$ ). We, therefore, constructed measures of pro-peace (US:  $\alpha = .73$ ; Denmark:  $\alpha = .73$ ) and pro-war behavioral intentions (US:  $\alpha = .89$ ; Denmark:  $\alpha = .83$ ).

Participants rated their agreement or disagreement with the items of all these measures on a nine-point Likert scale (US: -4 - *strongly disagree*, 0 - *neutral*, +4 - *strongly agree*; Denmark: 1 - *strongly disagree*, 5 - *neutral*, 9 - *strongly agree*).

In addition, we included Braithwaite's (1998) measures of two value orientations – national strength and order (US:  $\alpha = .79$ ; Denmark:  $\alpha = .67$ ) and international harmony and equality (US:  $\alpha = .83$ ; Denmark:  $\alpha = .76$ ). Participants indicated on a seven-point scale (1 - *Reject*, 7 - *Accept as of utmost importance*) how much they accept 16 principles as guides of their judgments and actions. An example for national strength and order is: “National greatness (being a united, strong, independent, and powerful nation),” and for international harmony and equality: “A good life for others (improving the welfare of all people in need).”

We measured personal distress ( $\alpha = .77$ ) and empathic concern ( $\alpha = .79$ ) in the US using the full seven-item subscales from Davis's (1983) IRI. These measures of empathy were, however, not included in Denmark. To investigate the effect of social desirability on responding, we also included a balanced and shortened 10-item Balanced Inventory of Desirable Responding (BIDR, e.g., “I have said something bad about a friend behind his or her back”,  $\alpha = .74$ ), which was developed by Paulhus (1984). The ten items were from the Impression Management subscale, which is more relevant to social desirability demands than the Self-Deception subscale (see Paulhus, 1984). Both the IRI and BIDR used a five-point scale (1 - *Does not describe me well*, 5 - *Describes me very well*). The dataset was corrected for missing values (< 1%) using expectation maximization.

## **Results and Discussion**

We initially conducted an item analysis to select the best 16 items measuring attitudes toward peace and war. We aimed at having an equal number of items (eight, with four protrait

and four contrait) measuring each attitude. After considering the corrected item-total correlations and the correlations of the items with the measure of the other construct (e.g., how strongly each item measuring attitudes toward peace correlates with the measure of attitudes toward war), we selected four protrait and four contrait items to measure attitudes toward peace and equal numbers to measure attitudes toward war. This gave a balanced measure of 16 items.

Next, we ran an EFA in both countries to investigate if the selected items do indeed load on separate factors. We ran an EFA specifying two factors with oblimin rotation. Factor 1 explained 37% of variance in the US and 30% in Denmark, and Factor 2 explained 9% in both countries. As seen in Table 3, items measuring attitudes toward peace and war loaded strongly and significantly on their respective factors. Although there was one item that measured attitudes toward peace in Denmark, with a loading that was lower than .30, we kept it in the measure as it loaded significantly on its factor, its corrected item-total correlation was also significant ( $r = .23, p < .001$ ), and it performed well in both US samples (Study 1 and 2). The two factors were correlated negatively in the US ( $r = -.57, p < .001$ ) and Denmark ( $r = -.50, p < .001$ ), suggesting that attitudes toward peace and war, although opposed to each other, represented two distinct dimensions.

Next, a CFA was conducted to compare the same models as in Study 1 (Model 1, which posited unidimensionality, and Model 2, which posited two dimensions), using the same procedures and fit indices for estimating acceptable model fit. We created four item-pairs for items measuring attitudes toward peace and four for items measuring attitudes toward war. Item pairs consisted of items that had higher and lower loadings in separate mono-factorial CFAs, but attention was also paid to have a protrait and contrait item in each pair. Model 2 had acceptable fit indices (US:  $\chi^2(19) = 24.32, p = .18; \chi^2/df = 1.28, NNFI = .98,$

CFI = .99, RMSEA = .05, SRMR = .04; Denmark:  $\chi^2(19) = 32.36, p = .03; \chi^2/df = 1.70, NNFI = .98, CFI = .99, RMSEA = .03, SRMR = .03$ ), and had a better fit than Model 1, which had unacceptable fit indices (US:  $\chi^2(20) = 104.50, p < .001; \chi^2/df = 5.23, NNFI = .75, CFI = .82, RMSEA = .19, SRMR = .10$ ; Denmark:  $\chi^2(20) = 387.62, p < .001; \chi^2/df = 19.38, NNFI = .75, CFI = .82, RMSEA = .18, SRMR = .11$ ). All the loadings in Model 2 were strong in both countries, and the correlation between the two factors was strongly negative in both the US ( $r = -.67, p < .001$ ) and Denmark ( $r = -.58, p < .001$ ), again suggesting that while the two latent variables were negatively correlated, they were not so strongly related as to indicate unidimensionality. The two correlations were not significantly different from each other.

Descriptive statistics and correlations between the measures in the US and Denmark are presented in Table 4. There was no serious violation of normality for any measure as all kurtosis and skewness values were between -1 and 1 in both countries. Participants were on average positive about peace, but neutral in relation to war.

Correlations in the US showed, as expected, that attitudes toward peace were positively related to empathic concern, international harmony and equality, and pro-peace behavioral intentions, and negatively to SDO. Attitudes toward war were, as expected, positively related to RWA, personal distress, and pro-war behavioral intentions. There were, however, also unexpected correlations, such as negative correlations of attitudes toward peace with RWA and pro-war behavioral intentions, and negative correlations of attitudes toward war with empathic concern, international harmony and equality, and pro-peace behavioral intentions, and positive correlations with SDO. Social desirability was significantly associated, though weakly positively with attitudes toward peace and pro-peace behavioral intentions and moderately with the empathy dimensions (though negatively with personal distress). Nevertheless, it should be noted that social desirability was not the reason for the

association between any of the variables, as the associations were slightly (and not significantly) decreased when we controlled for social desirability.

Due to the large sample size all the correlations in Denmark were significant, though the pattern was mainly as expected, with attitudes toward peace more strongly related to SDO, international harmony and equality, and pro-peace behavioral intentions, and attitudes toward war more strongly related to pro-war behavioral intentions. Attitudes toward war were, as expected, strongly related to RWA and national strength and order, but also to SDO and international harmony and equality.

As in Study 1, the strong relationship between some of the variables and especially between attitudes toward peace and war as well as the existence of the measurement error for the instruments could have been responsible for some of the unexpected effects. Accordingly, to fully test the proposed models of antecedents and consequences of attitudes toward peace and war in the US and Denmark, we conducted a series of SEM analyses. In each country, we used the same procedure for constructing item parcels (with three item parcels loading on each latent variable) and the same fit indices as in previous CFA and SEM analyses. Model 1 was in line with the theoretical reasoning that values precede ideology, that is, that RWA is influenced by values of national strength and order, and that SDO is influenced by values of international harmony and equality. The model included the paths from international harmony and equality to SDO to attitudes toward peace to pro-peace behavioral intentions, and the paths from national strength and order to RWA to attitudes toward war to pro-war behavioral intentions. There were also reciprocal paths between attitudes toward peace and war (and the correlated error terms of these latent variables). In the US, we also included direct paths of empathic concern on attitudes toward peace and of personal distress on attitudes toward war. Exogenous variables were allowed to freely intercorrelate. Model 2 was in line with the

alternative explanation that personality and ideology precede values, and therefore, the model was the same as Model 1 except that instead of the paths from values to ideological beliefs, there were paths from ideological beliefs to values, that is, from RWA to national strength and order and from SDO (and empathic concern) to international harmony and equality. Personal distress appeared to be more explicitly related to opposition to war and not to valuing national strength and order, and therefore we modeled a direct effect of personal distress on attitudes toward war.

In both countries, we first tested the measurement models, with the manifest indicators loading on their respective latent variables, with freely estimated correlations between the latent variables. In both countries the measurement model was supported (US:  $\chi^2(360) = 501.63, p < .001; \chi^2/df = 1.39, NNFI = .94, CFI = .95, RMSEA = .06, SRMR = .08$ ; Denmark:  $\chi^2(224) = 648.58, p < .001; \chi^2/df = 2.90, NNFI = .96, CFI = .97, RMSEA = .06, SRMR = .06$ ). The structural regression Model 1 had, in general, acceptable fit indices, apart from SRMR, in both countries (US:  $\chi^2(388) = 655.87, p < .001; \chi^2/df = 1.69, NNFI = .91, CFI = .92, RMSEA = .08, SRMR = .13$ ; Denmark:  $\chi^2(242) = 1217.01, p < .001; \chi^2/df = 5.03, NNFI = .92, CFI = .93, RMSEA = .08, SRMR = .13$ ), but was clearly worse than the structural regression Model 2 in relation to all fit indices (US:  $\chi^2(388) = 610.82, p < .001; \chi^2/df = 1.57, NNFI = .92, CFI = .93, RMSEA = .07, SRMR = .11$ ; Denmark:  $\chi^2(242) = 857.81, p < .001; \chi^2/df = 3.54, NNFI = .95, CFI = .96, RMSEA = .07, SRMR = .08$ ). Accordingly, we accepted Model 2 as having a better fit to the data. Model 2 (see Figures 2 and 3) therefore suggested that low SDO (and high empathic concern in the US) appeared to predispose people to hold the values of international harmony and equality, which in turn led to positivity toward peace, which in turn led to intentions to engage in peace promoting activities. On the other hand, RWA predisposed people to hold the values of national strength and order, which together with low personal

distress contributed to positivity toward war, which in turn led to intentions to engage in warlike activities. The models appeared to almost fully replicate each other in the two countries, apart from the difference in the two empathy dimensions, which were not included in Denmark.

The findings have, therefore, largely confirmed the findings of Study 1, and our expectation that attitudes toward peace and war represent two dimensions. In addition, they also supported the role of ideologies and values (and empathy dimensions in the US) as antecedents of attitudes toward peace and war, and the role of attitudes in shaping people's behavioral intentions in relation to peace and war. The structural regression models also showed that it appeared that the values of international harmony and equality mediated the effects of SDO (and empathic concern) on attitudes toward peace and that the values of national strength and order mediated the effect of RWA on attitudes toward war.

It is also important to note that the findings from the US and Denmark were generally similar even though the two countries tend to be quite different (e.g., in contrast to the US, Denmark is a welfare state and has rarely participated in wars). However, the correlation between attitudes toward peace and war was stronger in the US in Study 2 than in Study 1 (the effect for the differences between the CFA correlations was marginally significant,  $z = 1.79, p = .07$ ). One possibility is that the difference was due to the two samples: Study 1 was conducted in the Midwest, and Study 2 in New York City, which is known to have a much more liberal climate than the Midwest. So, it is possible that there were more conservatives in Study 1 and more liberals in Study 2.

One possibility is that political orientation predisposed some conservatives to approve of attitudes toward both peace and war. Self-categorization theorists (Reynolds & Turner, 2006; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) assume that attitudes may vary with

situations and group memberships. As such, different attitudes may cohere together strongly in a person if they are found to exist in groups with which the person identifies. Thus, it was possible that attitudes toward peace and war appeared to be more strongly opposed in liberals in the US than in conservatives. In other words, given the political situation in the US, when our studies took place (2003-2004), with a conservative administration justifying its wars in Iraq and Afghanistan as conducive to peace, we suspect that among conservatives the two kinds of attitudes could have been somewhat more compatible than among liberals, who were generally opposed to the conservative administration and its wars. It is possible that given the widely pronounced claims by conservative politicians that the wars in Iraq and Afghanistan were fought to promote peace, many conservatives (but not liberals, who are less likely to be influenced by ideological outgroups) may have been influenced to perceive positive attitudes toward both peace and war as compatible. This explanation, therefore, also implicates the role of the context, group memberships, institutions, and leaders as additional influences on the relationship between both kinds of attitudes.

Finally, it is important to note that the findings in the US in Study 1 and 2 were somewhat distinct in that RWA was not significantly related to attitudes toward peace in Study 1 but was related in Study 2. Additionally, Studies 1 and 2 had somewhat smaller samples, and participants in both Denmark and the US in Study 2 seemed to consist of somewhat more liberal populations. Accordingly, to address the limitations, to investigate the aforementioned ideas further, and to further ascertain how generalizable our findings are, Study 3 was conducted with a large sample size in the US in the period from 2007 to 2010.

### **Study 3**

One of the aims of the study was to test the relationship between attitudes toward

peace and war among three political groups in the US: conservatives, liberals and moderates (who tend to combine liberal and conservative views) in order to ascertain the role of the context and political group memberships on the relationship between the two kinds of attitudes. In line with previous arguments, we expected that the negative correlations between attitudes toward peace and war would be strongest in liberals, followed by moderates, and would be weakest in conservatives. We, however, also expected that liberals would be most positive toward peace and most negative toward war, followed by moderates and then conservatives (given that conservatives tend to be generally high on RWA, SDO, national strength and order, and low on international harmony and equality; e.g., Braithwaite, 1998; Jost, Glaser, Kruglanski, & Sulloway, 2003). In addition, we also investigated the structure of attitudes toward peace and war across the different political groups, and further tested the proposed model of the ideological beliefs and personality influences on attitudes toward peace and war.

## Method

**Participants.** There were 3,930 (2,262 males, 58%) members of the general public from the US who participated in an on-line study at <http://www.YourMorals.org>. This is a data collection website where participants take psychological measures in return for feedback about their personality, values, and attitudes. All 3,930 participants elected to take part in a study titled “War and Peace Measure – What are your attitudes toward war and peace?”. Their mean age was 40.18 ( $SD = 16.45$ ), and there were 2,963 Whites (75%), 98 Asians (2%), 46 Latinos (1%), 38 Blacks (1%), 222 of mixed ethnicity (6%), 57 of other ethnicities (1%), and 506 (13%) participants did not state their ethnic background. There were 2,530 (64%) participants who identified as liberals, 510 (13%) as conservatives, and 355 (9%) as

moderates; 535 participants (14%) chose not to classify themselves on the liberal-moderate-conservative spectrum.

**Materials and Procedures.** All participants completed the 16-item APW Scale to measure attitudes toward peace ( $\alpha = .83$ ) and war ( $\alpha = .90$ ). A number of these participants also agreed to complete other measures: 849 participants completed a 16-item measure of SDO (Pratto et al., 1994;  $\alpha = .92$ ), 838 participants completed a 15-item, shortened version of Altemeyer's RWA (Zakrisson, 2005;  $\alpha = .91$ ), and 622 participants completed the full seven-item subscales of empathic concern ( $\alpha = .86$ ) and personal distress ( $\alpha = .84$ ) from the IRI (Davis, 1983). Participants rated their agreement with items measuring attitudes toward peace and war on a 9-point scale (1 - *Very strongly disagree*, 9 - *Very strongly agree*), SDO on a 7-point scale (1 - *Strongly disagree*, 7 - *Strongly agree*), and RWA on a 6-point scale (1 - *Strongly disagree*, 6 - *Strongly agree*). Empathic concern and personal distress used a five-point scale (1 - *Does not describe me well*, 5 - *Describes me very well*).

## Results and Discussion

We imputed the dataset only for the items measuring attitudes toward peace and war (< 1%), and conducted three different CFAs for each political group: liberals, conservatives, and moderates. We tested the same two models (Model 1 that posited one dimension and Model 2 that posited two dimensions) using the same fit indices as in Studies 1 and 2, and using item pairs, which were formed as in Study 2. Covariance matrices of the item pairs were submitted to a maximum likelihood procedure. In each political group, Model 2 was acceptable (liberals:  $\chi^2(19) = 139.44$ ,  $p < .001$ ;  $\chi^2/df = 7.34$ , NNFI = .98, CFI = .99, RMSEA = .05, SRMR = .03; conservatives:  $\chi^2(19) = 57.78$ ,  $p < .001$ ;  $\chi^2/df = 3.03$ , NNFI = .96, CFI = .97, RMSEA = .06, SRMR = .04; moderates:  $\chi^2(19) = 22.49$ ,  $p = .26$ ;  $\chi^2/df = 1.18$ , NNFI = .996,

CFI = .997, RMSEA = .02, SRMR = .03), and was superior to Model 1, which generally had poor fit indices (liberals:  $\chi^2(20) = 1034.3, p < .001; \chi^2/df = 51.72$ , NNFI = .83, CFI = .88, RMSEA = .14, SRMR = .08; conservatives:  $\chi^2(20) = 354.46, p < .001; \chi^2/df = 17.72$ , NNFI = .69, CFI = .78, RMSEA = .18, SRMR = .11; moderates:  $\chi^2(20) = 148.10, p < .001; \chi^2/df = 7.41$ , NNFI = .85, CFI = .89, RMSEA = .13, SRMR = .08). It should be noted that the higher value of the  $\chi^2/df$  ratio for Model 1 in the liberal subsample was due to the very large subsample size ( $n = 2530$ ) and the  $\chi^2$  test being sensitive to large sample sizes; the other indices, however, are less susceptible and these were all acceptable.

For Model 2, the correlations between the factors varied depending on one's political orientation:  $r = -.56, p < .001$ , for conservatives;  $r = -.70, p < .001$ , for liberals, and  $r = -.69, p < .001$ , for moderates. The difference between the correlations for conservatives and liberals was significant ( $z = 4.82, p < .001$ ), as well as the difference between the correlations for conservatives and moderates ( $z = 3.81, p < .001$ ). However, contrary to our expectations there was no significant difference between the correlations for liberals and moderates ( $z = .34, p = .73$ ). The findings, however, supported our main expectation that in the United States it was one's political orientation that influences the relationship between the two kinds of attitudes, with conservatives finding the two kinds of attitudes less incompatible than liberals (and moderates).

Next, we investigated the influence of political orientation on the extent to which participants endorsed attitudes toward peace and war. A univariate ANOVA showed that there was a significant impact of political orientation on both attitudes toward war  $F(2, 3392) = 797.97, p < .001, \eta^2 = .32$ , and attitudes toward peace,  $F(2, 3392) = 665.22, p < .001, \eta^2 = .28$ . The group most approving of war were conservatives ( $M = 7.03, SD = 1.35$ ), moderates were on average around the mid-point of the scale ( $M = 5.27, SD = 1.65$ ), whereas liberals were

opposed to war ( $M = 4.10$ ,  $SD = 1.57$ ). Post-hoc pairwise comparisons (with Bonferroni correction) showed that all three means were significantly different from each other ( $p < .001$ ). When it comes to attitudes toward peace the most approving group were liberals ( $M = 7.03$ ,  $SD = 1.15$ ), followed by moderates ( $M = 6.16$ ,  $SD = 1.26$ ), whereas conservatives were on average neutral about peace ( $M = 4.95$ ,  $SD = 1.37$ ). Post-hoc pairwise comparisons (Bonferroni corrected) again showed that all the means were significantly different from each other ( $p < .001$ ). The findings confirmed our expectations, and also provided evidence for the known-group validity for our scale. Interestingly, the mean for attitudes toward peace for liberals was the same as the mean for attitudes toward war for conservatives ( $M = 7.03$ ), suggesting that conservatives were as positive toward war as liberals were toward peace.

Interestingly, within this sample, 1,161 individuals scored above the mid-point of both measures, attitudes toward peace and war (74 participants scored below the mid-point of both measures, and the rest tended to have incompatible attitudes toward peace and war: 2,117 were pacifists, that is, pro-peace/anti-war, and 578 were militarists, that is, pro-war/anti-peace). We therefore created a warlike peacenik index by averaging attitudes toward peace and war ( $M = 5.63$ ,  $SD = .70$ ). A univariate ANOVA showed that there was a significant impact of political orientation on this index,  $F(2, 3392) = 90.812$ ,  $p < .001$ ,  $\eta^2 = .05$ , with post-hoc pairwise comparisons (Bonferroni corrected) indicating significant differences between the three means ( $p < .001$ ). The major finding is that conservatives ( $M = 5.99$ ,  $SD = .70$ ) were more likely to be warlike peaceniks than moderates ( $M = 5.71$ ,  $SD = .70$ ) and liberals ( $M = 5.56$ ,  $SD = .65$ ).

Table 5 shows that, in the subsample of individuals who completed the attitudes toward peace and war measures, empathy, SDO, and RWA measures ( $n = 410$ ), attitudes toward peace were, as expected, related positively to empathic concern and negatively to

SDO, whereas attitudes toward war were related negatively to personal distress and positively to RWA. However, attitudes toward peace were also, although weakly positively, correlated with personal distress and negatively with RWA, and attitudes toward war were negatively correlated with empathic concern and positively with SDO.

Given the quite strong relationships among attitudes toward peace, attitudes toward war, SDO and RWA, and the existence of the measurement error, we used SEM to test an aspect of our model in which attitudes toward peace and war are grounded in personality and ideological beliefs. We used the same procedure to construct item parcels (with three item parcels loading on each latent variable) and same fit indices as in previous CFA and SEM analyses. The model included direct paths from empathic concern and SDO on attitudes toward peace, and from personal distress and RWA on attitudes toward war, as well as reciprocal effects for attitudes toward peace and war (and the correlated error terms of these latent variables). Additionally, we allowed exogenous variables to freely intercorrelate.

We initially tested a measurement model, in which manifest indicators loaded on their respective latent variables and the correlations between the latent variables were freely estimated, and subsequently tested the structural regression model. The measurement model was indeed supported ( $\chi^2(120) = 216.09, p < .001; \chi^2/df = 1.80, NNFI = .99, CFI = .99, RMSEA = .05, SRMR = .03$ ), as well as the proposed structural regression model ( $\chi^2(122) = 217.73, p < .001; \chi^2/df = 1.78, NNFI = .99, CFI = .99, RMSEA = .04, SRMR = .03$ ), with all the proposed paths significant (see Figure 4). Accordingly, there were a positive effect of empathic concern and a negative effect of SDO on attitudes toward peace, a negative effect of personal distress and a positive effect of RWA on attitudes toward war, and reciprocal negative effects of attitudes toward peace and attitudes toward war. This model has, therefore, largely confirmed our expectation about the role of ideology and personality in affecting

attitudes toward peace and war.

### **General Discussion**

In this paper, we set out to investigate the proposition that attitudes toward peace and war may represent two distinct dimensions. Indeed, every EFA and CFA that we conducted supported this proposition. The two-factor structure was replicated in two societies (the US and Denmark), and within three political groups in the US (conservatives, liberals, and moderates). In addition, although the correlations between attitudes toward peace and war were generally strong and negative, they were never strong enough, even controlling for measurement error, to indicate unidimensionality (see Kline, 2004, who assumes that, for example, the correlations corrected for measurement error need to be at least .85 to indicate unidimensionality).

The study supported our expectations that attitudes toward peace and war are outcomes of ideologies, values, and personality characteristics. Accordingly, attitudes toward peace were primarily influenced by low SDO (i.e., egalitarian ideology), international harmony and equality, and empathic concern for others, whereas attitudes toward war were primarily influenced by high RWA, national strength and order, and absence of personal distress. As expected, attitudes toward peace predicted primarily intentions to promote peace, and attitudes toward war predicted intentions to engage in warlike activities. Additionally, it appeared that the values of national strength and order mediated the effect of RWA on attitudes toward peace, whereas the values of international harmony and equality mediated the effect of SDO (and empathic concern) on attitudes toward peace. Accordingly, we have generally found support for the nomological network in which attitudes toward peace and war are situated, and thus supporting the construct validity of the measure, the APW Scale.

Our findings support the theoretical views that attitudes toward peace and war appear to have their origin in ideological beliefs and values (cf. Braithwaite, 2009b, 2009a; Duckitt, 2001; McFarland, 2005; Pratto et al., 1994), with attitudes toward war being primarily based on values and ideologies concerned with security, strength and defense against threats, and attitudes toward peace being primarily concerned with harmonious values and egalitarian ideologies. These attitudes also appear to be differentially affected by personality differences, such as empathy dimensions (cf. Davis, 1983), and their relationship appears to vary as a result of relevant situational and group factors (cf. Reynolds & Turner, 2006; Turner et al., 1987), with political conservatives in the US at the time of our studies being more approving of both attitudes toward peace and war than liberals and moderates, for whom the two kinds of attitudes, although distinct, appeared more incompatible. Our findings therefore support the views that attitudes toward war and peace, although caused by distal, more stable characteristics (i.e., ideologies, values, personality), which tend to be more central and precede attitudes (cf. Braithwaite, 1998), may also be shaped by more contemporary influences (i.e., situations and group memberships).

Our study also found more support for the model positing that ideological beliefs (i.e., SDO and RWA) preceded values rather than for the model positing that ideological beliefs follow from values. This finding appears inconsistent with Heaven et al.'s (2006) finding that the values of international harmony and equality and national security and order precede ideological beliefs in causing attitudes toward war (see also Cohrs, Moschner, Maes, & Kielmann, 2005), but is consistent with more traditional views of ideological beliefs and personality determining people's values. Although this model was superior in two diverse cultures, Denmark and the US, it should be further tested in other, more diverse populations and, if possible, in representative samples.

Another theoretical implication of the findings is focused on the role of institutions and leaders. As seen in our studies, some people favor peace to war, some favor war to peace, some have favorable attitudes toward both, and still some dislike both (this was by far the smallest group, but still not negligible). That attitudes toward peace and war are distinct means that institutions and leaders may engage diverse kinds of groups in order to promote certain policies. This is exactly what president Bush was doing with his claim that war and peace can be equal under certain conditions. He was able to engage and generate support from both militarists (who would support wars and who do not care much about peace) and warlike peaceniks (i.e., those who appear to favor war, but for whom peace is also important). Accordingly, institutions and leaders may engage more individuals with a rhetoric that is favorable toward both peace and war. They can also be expected to engage more people in times of peacemaking, that is, they can engage support from pacifists, but also from warlike peaceniks. Furthermore, institutions and leaders may also modify and affect people's attitudes and convince individuals that positive attitudes toward war and peace are not incompatible. This is indeed a plausible explanation for why attitudes toward peace and war were more compatible among conservatives than among liberals in Study 3.

This means that in order to gain a better understanding of the dynamics at work during the times of preparations for war or peacemaking, political psychologists need to engage with the complexity of generalized attitudes that people hold toward peace and war rather than just their specific attitudes in relation to a specific war or peace. It seems that these broad and generalized attitudes can predispose people to be favorable or unfavorable toward a particular war or peace. Extreme pacifists can probably never be convinced that war is necessary, and extreme militarists can probably never be convinced in the ultimate value of peace. However, it is exactly the people who value both who could be convinced of the value of peace and/or

the value of war under specific circumstances. Additionally, it is those who are moderate pacifists or militarists who could be convinced that war or peace are useful ways of resolving a particular conflict. Accordingly, we argue that in order to fully understand how people feel and behave in relation to specific wars, we need to understand the complexity of their generalized attitudes.

A practical implication of the study is the development of the APW Scale, which is positioned within a nomological network and has good psychometric properties (reliability and construct, convergent, discriminant, predictive, and known-group kinds of validity). The measure is also fully controlled for acquiescence. Our measure has already demonstrated pragmatic utility for researchers, who have used the measure to study differences between attitudes toward peace and war in terms of social representations (Van der Linden, Bizumic, Stubager, & Mellon, 2011) and moral psychology variables (Iyer, Koleva, Graham, Haidt, & Ditto, 2010),

Future research may also use the present measure to discern how it relates to attitudes toward specific wars. For example, it might be expected that attitudes toward peace might be more related to support for wars that have a potential to redress structural violence, whereas attitudes toward war might be primarily related to support for wars that aim to address threats to national security and interests (cf. Henry et al., 2005; McFarland, 2005). Further research may also want to investigate the stability of attitudes toward peace and war. We argued that it is plausible that they can be affected by the context, but we also assume that certain individuals, such as extreme pacifists or militarists may never change their attitudes. For example, it can be expected that many Buddhists may never accept wars to be conducive to peace as they believe that violence can only lead to violence and never to peace.

It is important to note that our aim was to investigate attitudes toward peace and war

as two generalized and broad dimensions. Psychological constructs, however, tend to have a hierarchical structure, and generalized attitudes toward peace and war may comprise further specific dimensions. Future research may further explore the dimensionality of both attitudes toward peace and war at a higher level of specificity. For example, during the time of early research into attitudes toward peace and war, Jones (1942) showed that scores on certain items varied over time and others did not, and argued for a more nuanced investigation into attitudes toward peace and war, supposing multiple dimensions.

Finally, it is important not to overstate the distinction between attitudes toward peace and war. Indeed, the correlations (in the CFAs, corrected for measurement error) between the factors representing attitudes toward peace and war were strong and ranged from  $-.51$  in the first study to  $-.70$  among US liberals in the third study. This showed that positivity toward war (or peace) shares a lot of variance with negativity toward peace (or war). Accordingly, in some cases, a unidimensional measure of peace versus war attitudes may be useful for future researchers. The thrust of this research, however, is to point out that, even though attitudes toward peace and war may share a lot of common variance, additional explanatory power can be gained by measuring these two attitudes separately.

To conclude, our study showed that attitudes toward peace and war represent two distinct, though negatively related, dimensions, which means that there may be individuals who may favor (or oppose) both. In addition, attitudes toward peace and war appeared to have different causes and outcomes. Furthermore, it seemed that warlike peaceniks are particularly likely to be found among US conservatives rather than among US liberals or moderates. If we had used existing traditional measures of attitudes toward war and peace, such findings would not have been possible. Accordingly, our research shows that attitudes toward peace and war are more complex, and indicates that a more comprehensive and nuanced view, specifically

separating these attitudes, is required. Such a study could further help us explain when and why some people may be convinced in the value of wars or peace initiatives, and under what circumstances people may be prepared to engage in wars or promote peace.

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Table 1

*Factor Loadings for EFA With Oblimin Rotation of Items Measuring Attitudes Toward Peace and War in the United States (N = 98)*

Items	F1	F2
We must devote all our energy to securing peace throughout the world.	-.09	<b>.43</b>
People who place a high value on peace are usually weak and cowardly. (R)	.00	<b>.44</b>
I believe that peace is extremely important.	-.08	<b>.48</b>
In some cases, preservation of peace can have very negative consequences. (R)	-.07	<b>.32</b>
Living in peace is more important than anything else.	-.03	<b>.43</b>
Those who promote peace often create disunity in our country. (R)	.09	<b>.59</b>
In general, I am not too concerned about peace in the world. (R)	.22	<b>.76</b>
Our country's first priority should be world peace.	-.02	<b>.75</b>
The preservation of peace may sometimes hinder our country's progress. (R)	-.13	<b>.33</b>
We have a powerful need for an effective world peace organization.	-.02	<b>.67</b>
There is no conceivable justification for war. (R)	<b>.70</b>	-.07
War is a futile struggle resulting in self-destruction. (R)	<b>.71</b>	-.23
Although war is terrible, it has some value.	<b>.77</b>	-.05
The evils of war are greater than any possible benefits. (R)	<b>.75</b>	.07
Under some conditions, war is necessary to maintain justice.	<b>.78</b>	.14
War breeds disrespect for human life. (R)	<b>.54</b>	-.15

*Note.* N = 98. Loadings of higher than .30 are in boldface.

Table 2

*Descriptive Statistics and Correlations Between Measures in the United States (N = 98)*

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8
1. Empathic Concern	.78	.66	-							
2. Personal Distress	-.70	.64	.13	-						
3. SDO	-1.03	1.33	-.37***	.09	-					
4. RWA	-1.13	1.29	-.23*	.10	.36***	-				
5. Attitudes Toward Peace	1.00	1.11	.40***	.19	-.53***	-.12	-			
6. Attitudes Toward War	.94	1.57	-.22*	-.39***	.31**	.12	-.41***	-		
7. Peace – Behavioral Intentions	.23	1.92	.25*	.13	-.58***	-.29**	.65***	-.37***	-	
8. War – Behavioral Intentions	-.59	2.04	-.16	-.26**	.14	-.07	-.20*	.36***	.00	-

Note. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

Table 3

*Factor Loadings for EFA With Oblimin Rotation of Items Measuring Attitudes Toward Peace and War in the United States (N = 112) and Denmark (N = 596)*

Items	F1		F2	
	US	D	US	D
Our country's first priority should be world peace.	-.03	-.04	<b>.64</b>	<b>.70</b>
People who place a high value on peace are usually weak and cowardly. (R)	-.09	-.17	<b>.56</b>	<b>.30</b>
We must devote all our energy to securing peace throughout the world.	.20	.01	<b>.87</b>	<b>.73</b>
I believe that peace is extremely important.	.05	.08	<b>.77</b>	<b>.68</b>
Peace brings out the best qualities in a society.	-.09	.00	<b>.61</b>	<b>.48</b>
There are many things in life that are more important than peace. (R)	-.08	-.07	<b>.49</b>	<b>.40</b>
In general, I am not too concerned about peace in the world. (R)	-.11	.06	<b>.44</b>	<b>.59</b>
The preservation of peace may sometimes hinder our country's progress. (R)	-.18	-.08	<b>.36</b>	.16
There is no conceivable justification for war. (R)	<b>.68</b>	<b>.73</b>	-.09	.01
War is sometimes the best way to solve a conflict.	<b>.67</b>	<b>.77</b>	-.13	.06
War is a futile struggle resulting in self-destruction. (R)	<b>.75</b>	<b>.54</b>	-.06	-.21
Under some conditions, war is necessary to maintain justice.	<b>.92</b>	<b>.93</b>	.17	.23
Although war is terrible, it has some value.	<b>.88</b>	<b>.70</b>	.12	-.08
The evils of war are greater than any possible benefits. (R)	<b>.58</b>	<b>.66</b>	-.22	-.10
War breeds disrespect for human life. (R)	<b>.40</b>	<b>.35</b>	-.16	-.20
The desirable results of war have not received the attention they deserve.	<b>.30</b>	<b>.47</b>	-.20	-.12

*Note.* Loadings of higher than .30 are in boldface.

Table 4

*Descriptive Statistics and Correlations Between Measures in the United States (N = 112; Below the Diagonal) and Denmark (N = 596; Above the Diagonal)*

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Empathic Concern	.87	.67	-										
2. Personal Distress	-.53	.71	-.09	-									
3. SDO	-1.82(-1.93)	1.33(1.07)	-.35***	.00	-	.59***	-.46***	.26***	-.50***	.43***	-.40***	.35***	
4. RWA	-1.13(-1.84)	1.22(.98)	-.03	-.12	.50***	-	-.30***	.33***	-.32***	.30***	-.35***	.32***	
5. International Harmony and Equality	5.67(5.56)	.75(.63)	.42***	.10	-.49***	-.21*	-	.16***	.52***	-.46***	.45***	-.31***	
6. National Strength and Order	5.48(4.46)	.93(.90)	.17	-.15	.12	.37***	.27**	-	-.09*	.25***	-.20***	.33***	
7. Attitudes Toward Peace	1.13(1.86)	1.37(1.01)	.42***	.13	-.48***	-.28**	.57***	.02	-	-.47***	.46***	-.31***	
8. Attitudes Toward War	.09(-.25)	1.68(1.52)	-.21*	-.20*	.40***	.34***	-.41***	.33***	-.58***	-	-.44***	.60***	
9. Peace – Behavioral Intentions	-.31(.26)	1.50(1.35)	.33***	.17	-.36***	-.35***	.17	-.36***	.52***	-.45***	-	-.18***	
10. War – Behavioral Intentions	-.54(-1.03)	1.90(1.43)	.02	-.19*	.31***	.26**	-.29**	.22*	-.50***	.67***	-.13	-	
11. Social Desirability	-.35	.65	.36***	-.28**	-.15	.18	.03	-.02	.24**	-.18	.26*	.03	-

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . The values in brackets are for Danish participants. To make US and Danish statistics comparable we

converted the scales of SDO, RWA, attitudes toward peace and war, and behavioral intentions in Denmark to be the same as in the US (-4 to +4).

Table 5

*Descriptive Statistics and Correlations Between Measures in the United States (n = 410)*

Measure	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Empathic Concern	3.70	.84	-					
2. Personal Distress	2.30	.83	.09	-				
3. SDO	2.46	1.16	-.51***	-.12*	-			
4. RWA	2.21	.97	-.24***	-.04	.58***	-		
5. Attitudes Toward Peace	6.36	1.67	.46***	.15**	-.67***	-.56***	-	
6. Attitudes Toward War	4.85	2.08	-.38***	-.18***	.65***	.61***	-.75***	-

*Note.* \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

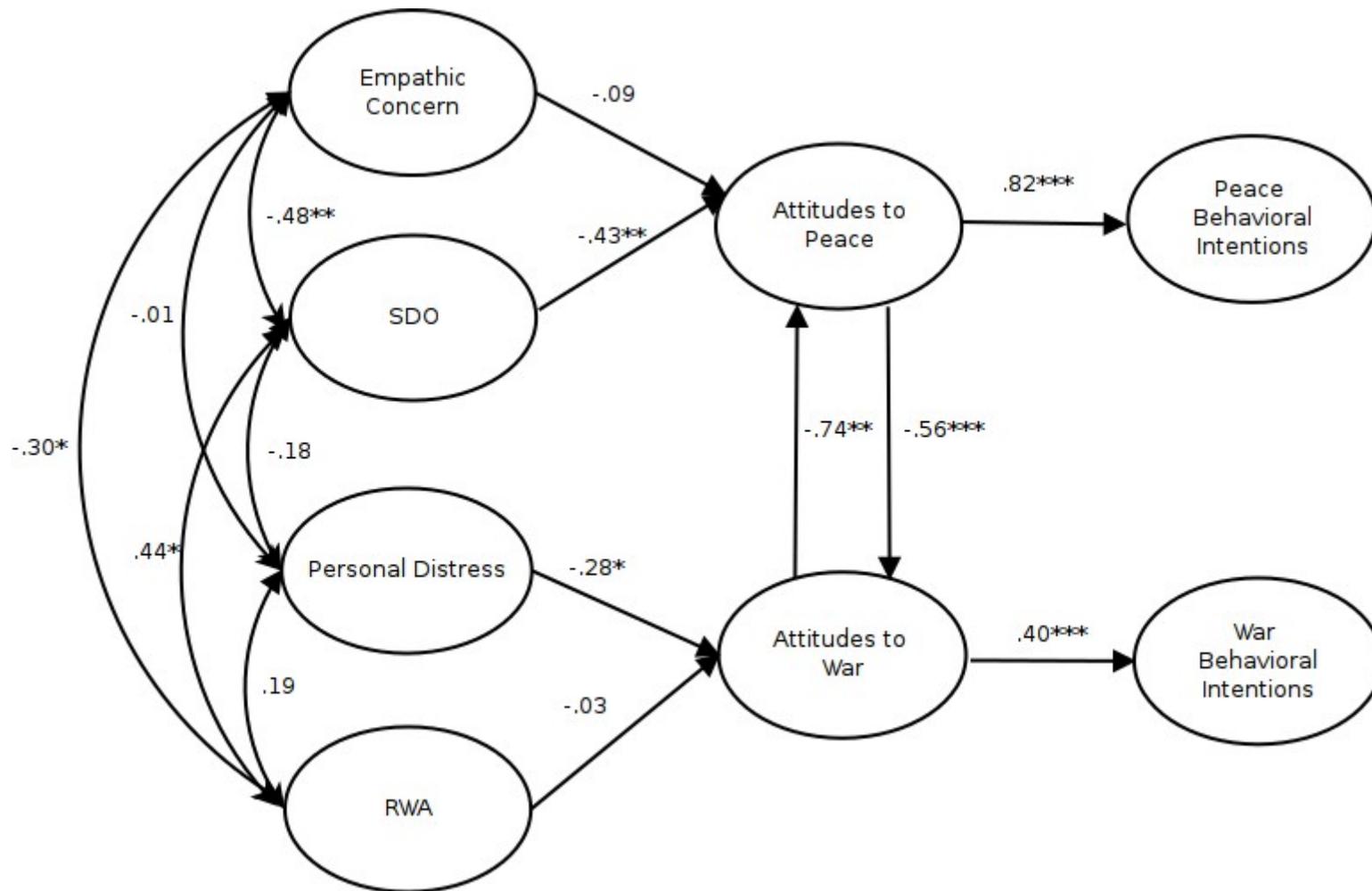


Figure 1. Structural equation model of antecedents and consequences of attitudes toward peace and war in the US ( $N = 98$ ). Manifest indicators and error terms are not presented. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

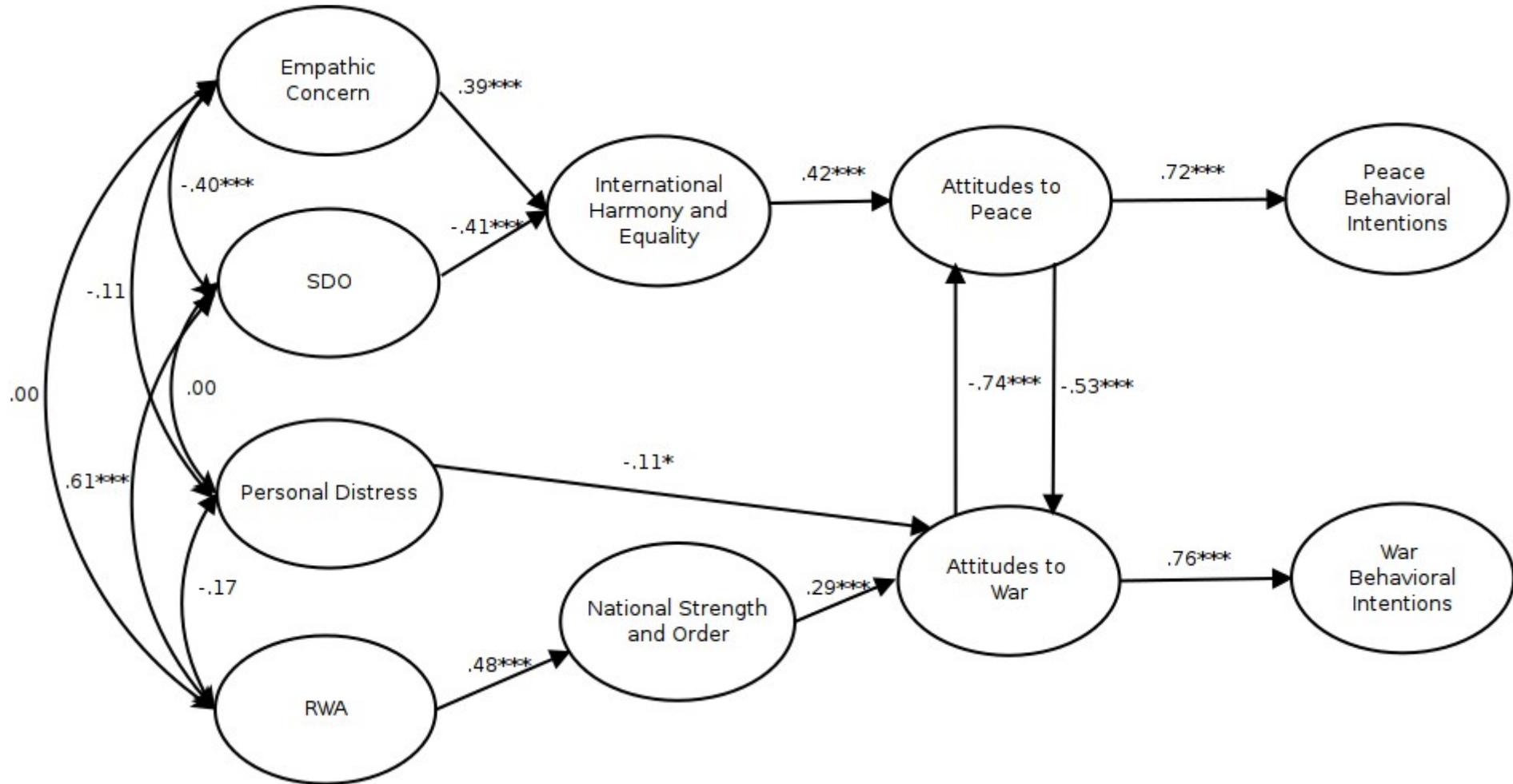


Figure 2. Structural equation model of antecedents and consequences of attitudes toward peace and war in the US ( $N = 118$ ). Manifest indicators and error terms are not presented. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

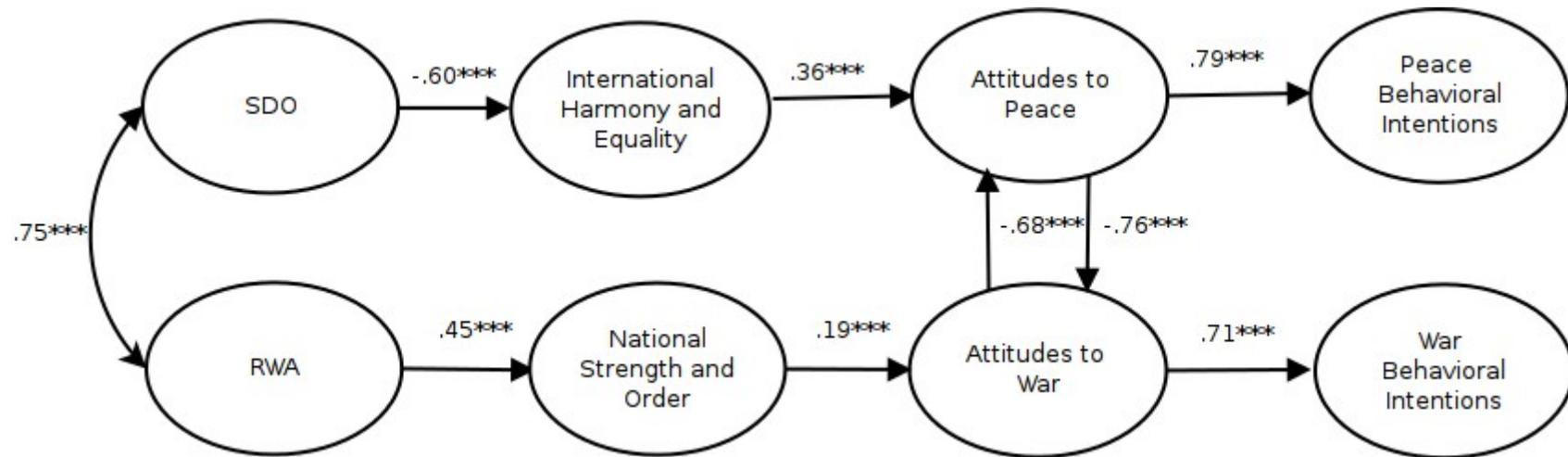


Figure 3. Structural equation model of antecedents and consequences of attitudes toward peace and war in Denmark ( $N = 596$ ). Manifest indicators and error terms are not presented. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

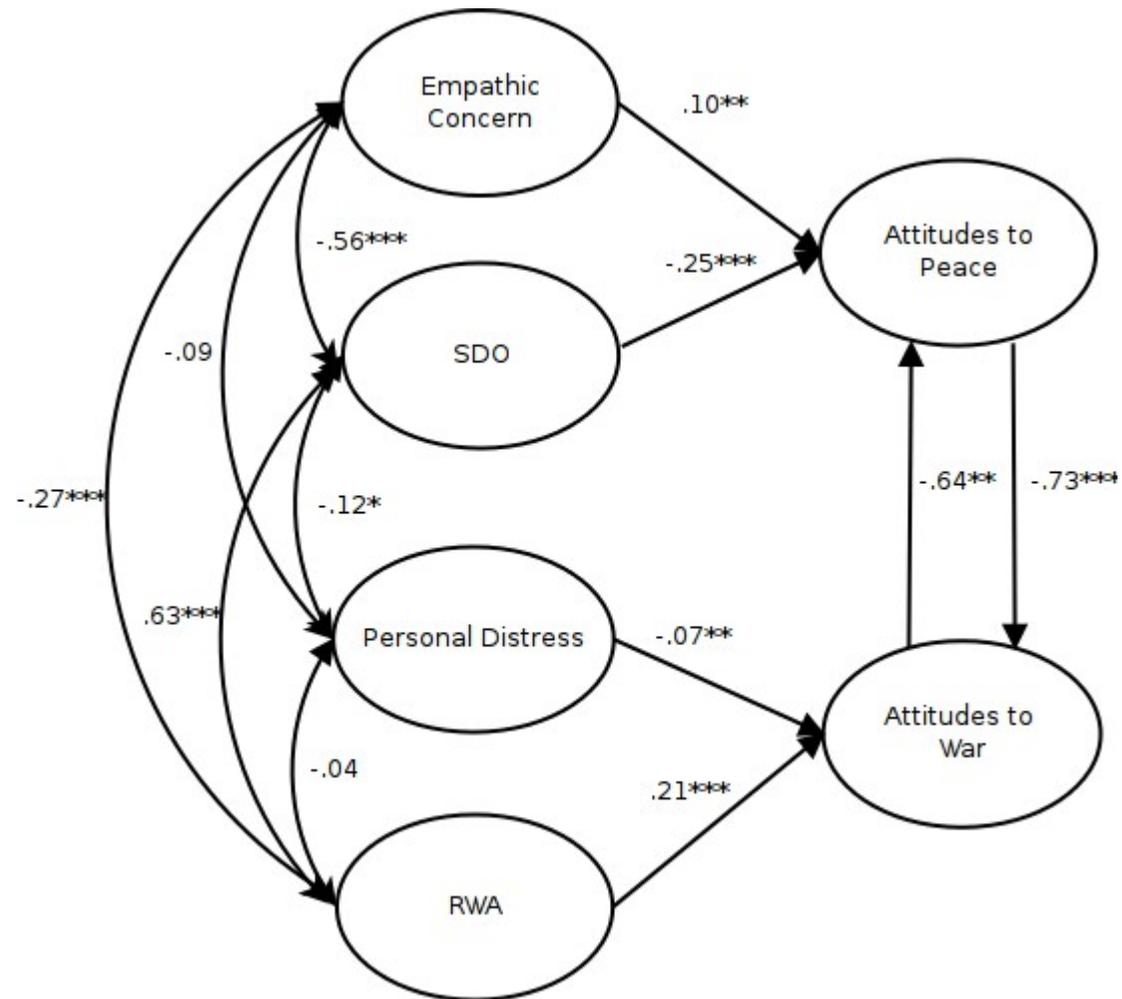


Figure 4. Structural equation model of antecedents of attitudes toward peace and war in the US ( $n = 410$ ). Manifest indicators and error terms are not presented. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .