

FRANK CASS

MEDICINE AND WAR

International Medical Concerns on War and other Social Violence

Medicine and War is an international journal for medical and health professionals and for peace researchers.

TOPICS

- Behavioural, cultural and biological factors in the causation of wars and other forms of social violence
- Medical effects of mass destructive and conventional weapons
- Human costs of wars and their preparation and of other social violence – mortality, physical and psychological morbidity, damage to health and welfare services
- Medical ethics and social responsibility in relation to nuclear war, non-nuclear war and other forms of social violence

Editor

Dr Jeffrey Segall MRCP

Articles from recent issues include:

- Editorial: Government Nuclear Accident Planning – Do Doctors Have Confidence in it? **Lesley Morrison**
- Doctors' Attitudes on Civil Defence and Nuclear Weapon Issues, **Isobel Hunter-Brown**
- On Population Aspects of Group Disasters: An Evolutionary View, **T Redli and P Lanesky**
- Thoughts after Reading Robert Jay Lifton's 'The Nazi Doctors', **A Bruwer**

Volume 6 1990

Quarterly: March, June, September, December

ISSN 0748-8008

For your free sample copy of *MEDICINE AND WAR* please contact Frank Cass at the appropriate address below.

UK orders: Gainsborough House, 11 Gainsborough Road, London E11 1RS, UK

Tel: (01) 530-4226 Fax: (01) 530-7795

Telex: 897719

US orders: c/o Allen Press, Inc., Subscription Services, PO Box 348, Lawrence, Kansas 66044, USA Tel: (913) 843-1235 Fax: (913) 843-1274



Factors Predisposing Individuals to Support Nuclear Disarmament: An International Perspective*

KEN RIGBY, JACQUES METZER & BIRUTA DIETZ

School of Social Studies, South Australian Institute of Technology

This study investigated whether selected social psychological factors predisposed individuals from four different countries to support the policy of nuclear disarmament. Social surveys were conducted during 1986 in Australia, West Germany, Netherlands and the United States. Community samples (>160) of residents in each of the countries completed measures of worldmindedness, attitude toward institutional authority and stress engendered by the prospect of nuclear war. Other questions tapped support for nuclear disarmament, both attitudinal and behavioural. Results of correlation and regression analyses showed that in each country residents who supported nuclear disarmament were significantly more likely than others to be relatively worldminded, less favourably disposed to institutional authority and more anxious about nuclear war. In addition, there was a tendency for support to be greater among young people and females. It is concluded that whilst local conditions may determine the degree of support for nuclear disarmament, predisposing factors, of which social attitudes are more important, may operate with similar effect across national boundaries.

1. Introduction

This study examines the question of why some people have supported the policy of nuclear disarmament and others have not. More especially, it considers the evidence for supposing that there are common social psychological factors that predispose individuals to support nuclear disarmament, whichever the particular country they inhabit.

It is to be expected that countries (and indeed communities within countries) will differ in the extent to which their people align themselves for or against the maintenance of nuclear weapons. In fact, research evidence has suggested major variations. For example, De Boer (1985) reported that in the United States only 4% of a national sample believed that their government should give up nuclear weapons regardless of whether the Soviet Union did so, while in the Netherlands and in West Germany the corresponding figures were 15% and 23% respectively. Such differences are hardly surprising, given the political circumstances in the USA and

Western Europe. In Western Europe nuclear weapons may be viewed as imposed on them to some degree by an external power to serve its own interests; in the United States the people are more likely to hold themselves responsible for the policy of adoption and maintenance of a nuclear deterrent. Yet despite such contrasting circumstances, it is possible that the same social psychological factors might motivate individuals in the different countries to take a stand for or against nuclear weapons.

Our own speculations about relevant factors underlying opposition to nuclear disarmament originated in Australia. Politically, this country has much in common with the Netherlands and West Germany. Like them, since World War II, Australia has been in close military alliance with the United States. Successive governments have agreed in principle to the maintenance of a common defence based upon nuclear deterrent. As among Europeans, whether Austrians should support the policy of having nuclear bases in their country has been a controversial one, effectively polarizing public opinion (Clark et al., 1985). During the 1980s clashes between peace demonstrators and the police occurred repeatedly,

* An earlier version of this article was presented at the XXIVth International Congress of Psychology in Sydney, Australia, in August 1988 and subsequently published as Rigby, Metzger & Dietz (1989). Reprinted by permission from Elsevier Science Publishers.

especially outside military bases seen as part of a nuclear defence system. In October, 1989, for instance, more than 400 Australians were arrested for their part in demonstrations at the Nurrangar Joint Defence Space Communication Station in the north of the state of South Australia. However, in one important respect, Australia is different from Western Europe, being widely removed from the geopolitical centre of the earth and with no history of modern war being fought on its soil. The reality of war has not yet been brought home to Australians as it has to Western Europeans.

Studies conducted in Australia in 1986 (Rigby, 1987) focused upon three social psychological factors which were thought to predict support for nuclear disarmament. These were: Worldmindedness; Attitude to Institutional Authority; and Anxiety associated with the prospect of nuclear war. The choice of these variables was determined by a number of considerations.

It appeared likely that supporters of nuclear disarmament were more accepting and trusting in their attitudes towards other nations. For them, it seemed, disarmament posed no great threat from others. They appeared to take a worldminded view of the problems of humanity, emphasizing the need for international cooperation to resolve difficulties. This suggested a general outlook of worldmindedness of a kind first proposed and operationalized by Sampson & Smith (1957). In their view worldminded people adopt a value orientation according to which one's primary reference group was mankind rather than that of a particular nationality. We hypothesized that adherents of the policy of nuclear disarmament were relatively worldminded in this sense.

A distrust of institutional authority also appeared as a factor in supporting nuclear disarmament. Such an attitude implies more than a dislike for political decisionmakers who could be held responsible for the formation of national policies. It extends to encompass a wide range of other authorities who exercise control over others, such as the Police and the apparatus of law enforcement generally. That people do have consistently positive or negative attitudes toward a range

norms. 'It is this environment of critical attitudes', he asserted, 'rather than a quest for peace or an opposition against (sic) nuclear weapons, which induces people to involve themselves in the peace movement' (p. 115). For evidence, Salomon pointed to the affiliations of peace activists with the political parties of the left: the Green Party in Germany, the Socialist Party in Denmark, the Social Democrats in the Netherlands and the Labour Party in Britain. These parties are described by Salomon as containing large groups which ostentatiously display anti-establishment attitudes (p. 123). In other words, they appeared to be opposed to what we had called 'institutional authority'.

The basic aim of this study, then, was to replicate the Australian findings among subjects in a number of countries in different parts of the world, despite varying political or social circumstances. The countries chosen for the replication studies were United States, Netherlands and West Germany. As previously discussed, it was expected that respondents from the United States would differ from others in that their nuclear policy could not be viewed as resulting from external pressure to act so as to support the interests of another nation. In Europe the choice was made of two countries, both politically allied to the United States, but in other respects different. Unlike the Netherlands, West Germany is bordered by communist countries from which the threat of war on German soil has been a constant factor for more than forty years; the Netherlands has buffers between it and the anticipated source of military aggression.

There were, then, expectations that the relevant attitudes and opinions about nuclear weapons would differ widely among the various samples. Our prime consideration, however, was whether the results obtained in one of the countries describing relationships between predictor and dependent variables could not be replicated in varied social milieux. As with studies carried out in different countries, it was considered desirable to check the reliability or internal consistency of the main measures used in this study in each country.

2. The Measures

Questionnaires developed in Australia for use in the Australian study of 1986 (reported in Rigby, 1987) were used for US respondents and translated for use in West Germany and the Netherlands. The questionnaires included the following measures.

Worldmindedness. The measure employed in this study for the Australian, US and Netherlands samples consisted of a 19-item scale selected from a 58-item measure developed by Der-Karabetian (1984), based upon earlier work by Sampson & Smith (1957) and Silvernail (1979). Three items were inadvertently omitted from the scale in the Germany study, leaving a shorter 16-item scale for this sample. (The comparability of the measures in terms of their internal consistency is examined in the Results.)

Items tapping 'worldmindedness' related to a wide variety of social issues, namely, race, religion, immigration, government, economics, education and ecology. Examples are: 'The rich nations should share their wealth with less fortunate people of the world' (pro-worldmindedness) and 'Immigrants should not be permitted to come to our country if they compete with our workers' (anti-worldmindedness). The scales were approximately balanced. Six response categories were employed, ranging from 'strongly agree' to 'strongly disagree'. After appropriate reverse scoring, high scores indicate a highly worldminded view.

Attitude toward Institutional Authority.

This was measured in each of the countries using 19 items from the General Attitude to Authority Scale (Rigby, 1982, 1986). The authorities included in the test are the police, the law, the army, doctors and teachers. Previous studies had shown that attitudes towards these authorities were significantly and positively intercorrelated. An example of a pro-authority item is: 'The police in this country are pretty trustworthy'; an anti-authority item is: 'A person should obey only those laws that seem reasonable'. Five response categories are provided ranging from 'agree strongly' to 'disagree strongly'. High scores reflect favourable attitudes to institutional authority.

Nuclear stress. This was inferred from

answers to a single question: 'How anxious are you concerning the possibility of nuclear war?' There were seven response categories, ranging from 'not at all anxious' to 'extremely anxious'.

Attitude to nuclear disarmament. Respondents were asked whether there should be nuclear weapons in their country. Response categories were 'yes' (coded 1), 'unsure' (coded 2) and 'no' (coded 3).

Perceived negative consequences of nuclear weapons. The degree to which negative consequences were seen as flowing from the existence of nuclear weapons was inferred from answers to the questions: 'Does the existence of nuclear weapons (a) in your country and (b) in the world increase or decrease the likelihood of war?' Answers to each of these questions, scored with five response categories, from 'increase greatly' to 'decrease greatly', were combined to form a ten-point scale with high scores indicating perceived greater likelihood of war or more negative consequences.

Action to support for nuclear disarmament. This was inferred from answers to the question: 'Have you been part of any mass political action (donation, letter writing, or demonstration) concerning the danger of nuclear war?'

Finally, data were also collected on the age of the respondents (in years) and their gender.

Prior to their administration in the Netherlands and West Germany, questionnaires were translated into Dutch by Jacques Metzger and Jan van Dommelen, and into German by Biruta and Christian Dietz. Back translations confirmed the adequacy of the translations for each language.

3. Data Collection

As in the Australian sample the data from USA were collected by means of a door-knock carried out by students assisting in the work. Students were from the South West Texas State University and respondents were selected from local communities in Central Texas. In the Netherlands a mail survey was employed addressed to a random sample of householders in Nijmegen. There was a 40%

return rate. In West Germany data were collected employing a quota sample of respondents in two townships, West Berlin and Freiburg.

Sample sizes were as follows: USA: 154 males, 162 females; Netherlands: 222 males, 118 females; West Germany, 89 males, 80 females. The mean ages were: USA, 36 years; Netherlands, 44 years; and West Germany, 31 years.

4. Results

The reliability of the two scales assessing Worldmindedness and attitudes to institutional and traditional authority was confirmed for each of the samples. Coefficient alpha values for Worldmindedness were: USA, 0.81; Netherlands, 0.90; and West Germany, 0.83. For Attitudes to Institutional Authority, the alpha values were: USA, 0.79; Netherlands, 0.84; and West Germany, 0.83. Corresponding values in the Australian samples were: 0.89 (Worldmindedness) and 0.88 (Attitudes to Institutional Authority). For each of the samples an adequate level of scale reliability was found.

As expected, there was considerable variability in the samples in their attitudes towards nuclear weapons. In response to the question, 'Do you think there should be nuclear weapons in this country?' the responses from the USA (Texan sample) were exceptional: only 28% of the sample said 'no', adopting what might be called a nuclear disarmament position, compared with sample percentages of 62% (Netherlands) and 75% (West Germany). In the Australian sample 69% supported a nuclear-free status, thus occupying an intermediate position. Similarly, wide variations were found in the respondents' perceptions of the consequences of the existence of nuclear weapons. For example, in the United States sample some 50% of respondents indicated that they believed that having such weapons in their own country decreased the likelihood of war; the corresponding figures elsewhere were 25% (Netherlands), 15% (Western Germany) and 12% (Australia).

On the question of whether people had taken any political action in relation to

nuclear disarmament, there were again marked contrasts. In each of the two European samples some 43% reported having taken some action; in the US sample there were only 5%. Once more, the Australian sample occupied an intermediate position, with 15% reporting having taken some political action. Although the sampling undertaken in this study was that of convenience and cannot lay claim to representativeness, it is clear that our samples varied widely in the proportions of respondents who adopted different positions on issues of nuclear disarmament.

The relationship between the predictor and dependent variables was examined in two ways: first by Pearson product-moment correlations, and secondly by means of either multiple regression analyses or discriminate analyses, as appropriate, in which all five variables, Worldmindedness, Attitude towards Institutional Authority, Nuclear Stress, age and sex, were entered into the equation. In Table I, zero order correlations are given, together with beta coefficients, to provide estimates of the relative importance of the different contributions.

The results were generally as predicted. Across each one of the national samples, Worldmindedness and Nuclear Stress were positively related to the measure of support for nuclear disarmament, whilst Attitude to Authority was negatively related. The beta coefficients indicate that significant independent contributions were made by both

Worldmindedness and Attitude to Authority for each national sample. The relationship with attitude to institutional authority was somewhat stronger in the European samples. The Nuclear Stress variable showed significant zero order correlations for all samples, but failed to provide significant independent contributions in the US and Netherlands samples. Age and sex were of minor importance, with a slight but inconsistent tendency for younger people and females to favour nuclear disarmament. As indicated by the multiple correlations, the amount of variance accounted for ranged from 18% in the US sample to 32% in the West German one.

A similar pattern of results was found when a measure of the perceived negative consequences of the existence of nuclear weapons was used as a dependent variable. The results given in Table II show that the predictions were confirmed across samples. Significant independent contributions, as indicated by the beta coefficients, were made in relation to each of the three predictor variables for all samples. Again the demographic variables were relatively unimportant as predictors, although there was a small but consistent tendency across samples for younger people and females to perceive the consequences of the existence of nuclear weapons as more serious. Variance accounted for by the predictor variables ranged from 23% (US sample) to 46% (West German).

Finally, a measure of reported action to

Table I. Relationship between Five Independent Variables and Rejection of Nuclear Weapons in One's Own Country for Four National Samples

Independent Variables	Australia		USA		Holland		West Germany	
	r	beta	r	beta	r	beta	r	beta
Worldmindedness	0.40	0.30	0.30	0.25	0.40	0.19	0.48	0.26
Attitude to Authority	-0.28	-0.10	-0.26	-0.24	-0.44	-0.24	-0.51	0.32
Nuclear Stress	0.25	0.15	0.16	0.07*	0.30	0.19	0.30	0.06*
Age (years)	-0.23	-0.12	-0.12	-0.04*	-0.28	-0.16	-0.03*	0.03*
Sex (m=1; f=2)	0.10	0.03*	0.16	0.19	0.10	0.01*	0.18	0.10*
Multiple r	0.46		0.43		0.53		0.57	

Note. All correlations and beta coefficients significant at the 0.05 level, except those indicated by asterisk*.

oppose nuclear weapons was employed as the dependent variable. For this, taking 'some political action' was scored as 1 and 'none' as 0. Point bi-serial correlations were computed with each independent variable, followed by discriminant analysis to assess the relative contribution of each factor.

From Table III again a similar pattern of relationships was found for each sample: that is, Worldmindedness, Attitude toward Institutional Authority and Nuclear Stress, correlated significantly as predicted with reported political action. A slight tendency was evident for younger people to take action, but gender was for each sample a non-significant predictor. The amount of variance accounted for by the predictor variables ranged from 12% in the US sample to 31% in the West German one.

5. Discussion

We have seen that the Australian results were replicated cross-nationally. Despite marked variations in the degree of support for nuclear disarmament - with European samples showing strongest support, the US sample least, and the Australian sample occupying the intermediate position - in each of the samples support for nuclear disarmament was related, as predicted, to the same three social-psychological variables. In each case the supporters of nuclear disarmament, as inferred from their rejection of nuclear weapons, their perceptions of nuclear weapons

as having more negative consequences and their reportedly taking action over the dangers of nuclear war, were comparatively worldminded, more negatively disposed towards institutional authorities and relatively anxious about the prospects of nuclear war.

These results throw some light upon the nature of those who support nuclear disarmament. It does appear that Salomon (1986) was right in asserting that the Peace Movement provides, to a significant extent, an opportunity for the expression of generalized anti-authority feeling, arguably a justification for venting anger upon an Establishment that individuals have come to hate or distrust. But as a total explanation it is simplistic. In each of the four countries from which samples were drawn there is evidence that the positive quality of worldmindedness operates independently of the judgements people make of institutional authorities. Indeed, this study suggests that this factor is of at least equal importance in motivating individuals to participate in the Peace Movement.

The findings related to Worldmindedness are consistent with those obtained in recent studies by Larsen et al. (1988) and Clark et al. (1989). In their cross-cultural study, Larsen et al. found that a measure of patriotism was correlated negatively with an attitude towards nuclear disarmament scale. In some respects worldmindedness is the antithesis of patriotism, as, for example, in the scale item in Larsen et al.'s measure: 'No duties are

Table II. Relationship between Five Independent Variables and Perceived Negative Consequences of the Existence of Nuclear Weapons for Four National Samples

Independent Variables	Samples							
	Australia		USA		Holland		West Germany	
	r	beta	r	beta	r	beta	r	beta
Worldmindedness	0.34	0.20	0.25	0.17	0.44	0.20	0.50	0.18
Attitude to Authority	-0.26	-0.08	-0.30	-0.26	-0.46	-0.21	-0.58	0.33
Nuclear Stress	0.37	0.28	0.26	0.17	0.44	0.34	0.51	0.30
Age (years)	-0.26	-0.17	-0.22	-0.13	-0.25	-0.14	-0.15	-0.09*
Sex (m=1; f=2)	0.20	0.13*	0.17	0.21	0.16	0.06*	0.20	0.07*
Multiple r	0.51		0.48		0.62		0.68	

Note. All correlations and beta coefficients significant at the 0.05 level, except those indicated by asterisk*.

Table III. Relationship between Five Independent Variables and Reported Political Action on the Dangers of Nuclear War for Four National Samples

Independent Variables	Samples							
	Australia		USA		Holland		West Germany	
	r	dfc	r	dfc	r	dfc	r	dfc
Worldmindedness	0.35	0.49	0.26	0.64	0.45	0.52	0.40	0.29
Attitude to Authority	-0.39	-0.63	-0.23	-0.58	-0.46	-0.52	-0.51	0.68
Nuclear Stress	0.22	0.28	0.17	0.34	0.26	0.27	0.28	0.22
Age (years)	0.16	0.07	-0.07*	0.03	-0.24	-0.18	-0.22	-0.33
Sex (m=1; f=2)	0.02*	-0.08	-0.01*	0.05	0.09*	-0.03	0.01*	0.20
Multiple r	0.46		0.35		0.54		0.56	

Note. Point-biserial correlations were used to compute zero-order correlations (r). Correlations all significant at 0.05 level, except those indicated by asterisk*. To estimate the relative importance of the contribution of the independent variables, a discriminant analysis was used, providing discriminant function coefficients (dfcs).

more important than duties towards one's own country'. Worldmindedness also encapsulates an outlook contrary to the dog-eat-dog philosophy of Social Darwinism, a measure of which was reported by Clark et al. (1989) as showing an inverse relationship with support for nuclear disarmament. The value of the present findings lies in the demonstration that positive ideals placing international considerations above national ones (and not merely the absence of ethnocentrism or the view that the fittest shall survive) contribute significantly to the promotion of the policy of nuclear disarmament.

We should note also that nuclear stress or anxiety about nuclear war has not been shown to have the effect of inducing a sense of impotence (so-called 'psychic numbing') about what can be done to reduce the threat of nuclear war. Even in the sample with the greatest amount of expressed anxiety about nuclear war, the West German sample, the correlations indicate that it is the most anxious who tend to be most supportive of nuclear disarmament. In this regard our findings are similar to those reported by Bochnke (1988) for young people (aged 9 to 20) in Australia and West Germany, where those respondents expressing greater worries about political events, including nuclear weapons, participated more in peace movement activities. These results suggest that raising concern over nuclear issues may motivate people to protest more, although one

cannot discount the possibility that participation in peace activities can increase anxiety about the use of nuclear weapons.

Compared with the sociopolitical factors examined in this study demographic considerations within countries emerged as relatively unimportant. The tendency for young people to support nuclear disarmament is slight, though consistent across countries. Here the direction of the relationship is opposite to that reported by Larsen et al. (1988), who found that older people tended to express greater support. This difference between the studies is probably due to Larsen et al.'s samples being from student groups rather than the wider community. In an Australian study the student supporters of nuclear disarmament were reported as having a higher mean age than non-supporters (Rigby, 1987).

The factor of gender was consistently but weakly correlated with attitudinal support for nuclear disarmament and females were slightly more prone than males to judge the consequences of having nuclear weapons as negative. Whilst these findings are consistent with other similar studies (Peterson et al., 1988; Larsen et al., 1988) and may reflect a more compassionate outlook among women, gender accounts for very little of the variance in the reported relationships. It clearly does not provide substantial support for Erickson's (1968) radical suggestion that peace would be promoted more effectively if the female

gender was made a prerequisite for military decisionmaking. The attitudinal factors examined in this study were of considerable greater importance and operated independently of gender effect.

In conclusion, the factors predisposing individuals across nations to support nuclear disarmament are more similar than one might have thought. From the viewpoint of Education for Peace the results are encouraging. Though there may be among members of the Peace Movement a significant element of negative feeling directed against 'institutions - in general', this is clearly not all. The attitude of worldmindedness has emerged from our analyses as conceptually and empirically distinctive, and related to both attitudinal and action tendencies to promote nuclear disarmament. Worldmindedness appears as a coherent and potentially powerful philosophy that may be adopted as a basis for educational programmes designed to inculcate attitudes and behaviours conducive to Peace.

REFERENCES

- Boehnke, Klaus A. 1988. 'Affects and Attitudes towards the Nuclear Issue and Their Impact on Political Participation - a Cross-Cultural Study'. Paper presented at the XXIVth International Congress of Psychology, Sydney, Australia.
- Clark, Alfred W., Richard C. Trahair, Robert J. Powell & Robyn M. Walker, 1985. 'Australians' Attitudes to Nuclear Disarmament'. *La Trobe Sociology Papers*, no. 73. Melbourne.
- Clark, Alfred W., Richard C. Trahair & Brian R. Graetz, 1989. 'Social Darwinism: a Determinant of Nuclear Arms Policy in Action'. *Human Relations*, vol. 42, no. 4, pp. 289-303.
- De Boer, Connie, 1985. 'The Polls, the European Peace Movement and the Deployment of Nuclear Missiles'. *Public Opinion Quarterly*, vol. 49, no. 1, pp. 119-132.
- Der-Karabetian, Aghop, 1984. 'A Questionnaire to Assess Worldmindedness', unpublished paper. Department of Psychology, University of La Verne, CA.
- Erikson, Erik H., 1968. *Identity, Youth, and Crisis*. London: Faber.
- Larsen, Knud, S.; Gyorgy Csepli, Hanns-Dietrich Dann, Howard Giles, Reidar Ommundsen, Robert

Elder & Ed. C. Long, 1988. 'Attitudes Toward Nuclear Disarmament: International Comparisons of University Students and Activists'. *Journal of Peace Research*, vol. 25, no. 3, September, pp. 265-271.

Peterson, Candida, C.; Jeanette A. Lawrence, Irene Dawes & Philip Jennings, 1988. 'The Relationship of Law-and-Order and Gender Orientations to Nuclear Opinions'. Paper presented at the XXIVth International Conference of Psychology, Sydney.

Ray, John J. & Frances H. Lovejoy, 1983. 'The Behavioral Validity of Some Recent Measures of Authoritarianism'. *Journal of Social Psychology*, vol. 120, pp. 91-99.

Rigby, Ken, 1982. 'A Concise Scale for the Assessment of Attitudes Towards Institutional Authority'. *Australian Journal of Psychology*, vol. 34, no. 2, pp. 469-487.

Rigby, Ken, 1986. 'Acceptance of Authority, Self and Others'. *Journal of Social Psychology*, vol. 126, no. 4, pp. 493-501.

Rigby, Ken, 1987. 'Factors Influencing Support for Nuclear Disarmament in Australia'. Paper presented at the XIVth Annual Social Psychology Conference, Australian National University, Canberra.

Rigby, Ken; Jacques Metzger & Biruta Dietz, 1989. 'A Cross-Cultural Study of Factors Predisposing Individuals to Support Nuclear Disarmament', pp. 23-32 in R. C. King & J. K. Collins, eds. *Social Applications and Issues in Psychology*, vol. 8, *Proceedings of the XXIVth International Congress of Psychology*, Amsterdam: Elsevier.

Rigby, Ken & Eric E. Rump, 1979. 'The Generality of Attitudes to Authority'. *Human Relations*, vol. 32, no. 6, pp. 469-489.

Rump, Eric, E.; Ken Rigby & Leonie K. Waters, 1985. 'The Generality of Attitudes to Authority: Cross-Cultural Comparisons'. *Journal of Social Psychology*, vol. 52, no. 3, pp. 307-312.

Salomon, Kim, 1986. 'The Peace Movement: An Anti-Establishment Movement'. *Journal of Peace Research*, vol. 23, no. 2, June, pp. 115-127.

Sampson, Donald L. & Howard P. Smith, 1957. 'A Scale to Assess Worldminded Attitudes'. *Journal of Social Psychology*, vol. 45, pp. 99-106.

Silvernail, David L., 1979. 'The Assessment of Teachers' Future World Perspective Values'. *The Journal of Environmental Education*, vol. 10, no. 2, pp. 7-11.

Van Donmelan, Jan, 1986. 'The Relationship Between Anxiety and Opinions about Nuclear Arms in a Dutch Sample'. Paper presented at the IXth Annual Scientific Meeting of the International Society of Political Psychology, Amsterdam.

Zweigenthal, Richard, L.; Philip Jennings, Steven C. Rubinstein & Judith Van Hoorn, 1986. 'Nuclear Knowledge and Nuclear Anxiety: A Cross-Cultural Investigation'. *Journal of Social Psychology*, vol. 126, no. 4, pp. 473-484.

KEN RIGBY, b. 1932, PhD in Psychology (University of Adelaide, 1977), BSc in Economics, 1956 (London University); Principal Lecturer in Psychology and Research Methods, South Australian Institute of Technology; current research interests: social attitudes, authoritarianism, AIDS and ethnic groups in Australia.

JACQUES C. METZGER, b. 1946, PhD in Psychology (University of Adelaide, 1980); Senior Lecturer in Psychology and Research Methodology in the School of Social Studies at the South Australian Institute of Technology; publications in the areas of reinforcement theory and attitude and psychological assessment; special interests: clinical psychology applications.

BIRUTA R. DIETZ, b. 1944, Diploma Psychology in Clinical Psychology (Freie Universität, Berlin, 1975), BA in Psychology (University of Adelaide, 1968); Lecturer in Psychology, South Australian Institute of Technology; current research interests: mental health - anxiety, depression and suicide; AIDS and ethnic groups in Australia.