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Measuring Source Credibility with Generation Y: An Application to Messages about Smoking and Alcohol Consumption

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In recent years there have been widespread media campaigns directed at communicating to young people the potential risks associated with excessive alcohol consumption and smoking. Increasingly, these messages are being developed by industry organisations as well as government and health agencies, raising questions as to the credibility of these industry sources. In this study, university students were provided with the names of fourteen sources of campaigns directed at encouraging responsible alcohol consumption and smoking cessation. We found that the overall rating was effective in terms of identifying the different levels of perceived credibility in regards to the sources, but examination of those individual dimensions added useful information as to why a source was perceived as being more or less credible.

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Measuring Source Credibility with Generation Y: An Application to Messages about Smoking and Alcohol Consumption

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Abstract

In recent years there have been widespread media campaigns directed at communicating to young people the potential risks associated with excessive alcohol consumption and smoking. Increasingly, these messages are being developed by industry organisations as well as government and health agencies, raising questions as to the credibility of these industry sources. In this study, university students were provided with the names of fourteen sources of campaigns directed at encouraging responsible alcohol consumption and smoking cessation. We found that the overall rating was effective in terms of identifying the different levels of perceived credibility in regards to the sources, but examination of those individual dimensions added useful information as to *why* a source was perceived as being more or less credible.

Introduction

Tobacco and Alcohol Consumption amongst Australian University Students

It is widely agreed that tobacco smoking is the single largest preventable cause of death and disability in Australia (e.g., Ministerial Council on Drug Strategy, 1999), as it is in other countries. While tobacco usage rates have declined significantly in recent years, this is largely the result of adults making the decision to quit, with the number of young Australians taking up smoking remaining relatively stable (Pyne, 2006a). Those in the 20-29 age group exhibit the highest smoking rates, with 23.5% smoking on a daily basis (AIHW, 2004). People in the 20-29 year age bracket, both male and female, are also most likely to consume alcohol in a manner that places them at risk of harm – with 26.3% consuming alcohol at levels which risk short-term alcohol-related harm, and 10.4% drinking at levels considered 'risky' and 4.3% at 'high risk' levels for experiencing long-term (chronic) alcohol related harm (AIHW, 2004). As with tobacco, this is in contrast to the general decrease in overall per capita alcohol consumption in Australia (Department of Health and Ageing, 2005).

In response to the rising concern about young adults' health-damaging behaviours, there have been widespread media campaigns directed at communicating to young people the potential risks associated with excessive alcohol consumption and smoking. While these attempts have traditionally come from government and non-profit organisations, an emerging trend is for the manufacturers of these harmful products to sponsor education programs and campaigns directed at reducing their use. Such practices are already popular in North America and the United Kingdom, and include Diageo's '*Don't See a Great Night Wasted'* campaign which was run in Ireland in 2003-2004 and Philip Morris' *'Think, Don't Smoke'* initiative launched in the United States in 2000, which targeted youth smokers. Despite the fact that these messages encourage the desired behaviour pertaining to the use of these products, the credibility, and subsequent effectiveness, of these commercial sources has been questioned.

In May of this year, DrinkWise, the national organisation established by Australian alcohol producers to promote responsible drinking through education programs, received $5 million in

funding from the Federal Government (Pyne, 2006b). This decision is regarded as significant, in that it signifies the Government's support for commercial organisations engaging in such activities, and that this trend is likely to continue in the future. Developing a better understanding of the perceived credibility of these various sponsors, amongst target audiences, thus exists as an important research direction for upcoming studies.

In the area of tobacco control, there has been considerable discussion of the impact and appropriateness of tobacco company sponsored youth smoking prevention programs. For example, Assunta and Chapman (2004) analysed industry sponsored campaigns in Malaysia and concluded that they were ineffective in reducing youth smoking but served the purpose of diluting proposed government legislation. In one study that specifically addressed young adults' perceptions of youth smoking advertisements, Henriksen and Fortmann (2002) found that those who knew that Philip Morris is a tobacco company rated the ads less favourably than those who had not heard of the company. In 1994 Christopher Buckley wrote a fictional account of the tobacco industry (*Thank You for Smoking,* which later became a successful movie) in which he described an industry strategy of deliberately developing the most ineffective anti-smoking advertisements possible; in 2002 parallels were drawn between Buckley's novel and the Philip Morris campaign (Jones, 2002), which was found to be the least effective of an array of youth smoking programs.

Source Credibility

The issue of source credibility has been of interest to experts in the field of persuasive communication for over fifty years, with countless studies attempting to assess the extent to which a source is effective in inducing attitudinal, and subsequent behavioural, change amongst audiences (see, for example, Homer and Khale, 1990; Heesackaer, Petty Cacioppo, 1983; McGinnies and Ward, 1980; Dholakia and Sternthal, 1977). Literature addressing the topic generally defines source credibility according to two fundamental dimensions, namely *expertise*, referring to the extent to which a speaker is perceived to be capable of making correct assertions; and *trustworthiness*, which refers to the degree to which an audience perceives the assertions to be valid (Hovland, Janis and Kelly, 1953). This use of the trustworthiness and expertise dimensions in assessing the effects of source credibility, with the majority of studies focusing exclusively on the combined effects of these two variables, is problematic. While these components undoubtedly have a high degree of relevance to the concept of source credibility, one must consider the likely possibility that variables may carry different weightings in terms of importance, thus the use of a single overall measure fails to acknowledge these potential differences. The question should be raised as to whether the inclusion of additional variables, analysed individually, would facilitate a more comprehensive assessment of source credibility effects.

<u>The present study:</u> While studies have addressed the effects of source credibility in a commercial context in significant depth, an area that has been largely neglected is the nature of these effects in a social marketing context (with the exception of a small body of literature, discussed above). The primary purpose of this study was to identify which sources young Australians perceive to be credible when seeking information on the health effects of cigarette smoking and alcohol consumption. A second objective was to explore additional dimensions that might help explain differences in the perceived credibility, thus serving as effective measures in the assessment of source credibility effects.

Method

Survey Instrument/data collection: Participants were provided with the names of fourteen different sources that served as plausible sponsors of campaigns directed at encouraging (a) responsible alcohol consumption and (b) smoking cessation; seven for each of the two behaviours. These sources were selected to include a combination of organisations that would represent industry, government, non-government and academic sources. To ensure that no potential sources were overlooked, in the week prior a separate group of subjects were asked to list three sources that they would consider when seeking information regarding the health effects of each behaviour; and, on the basis of responses generated, additional sources were included. The final list of sources for smoking were Philip Morris International (PMI), International Tobacco Grower's Association (ITGA), Non-Smoker's Movement of Australia (NSMA), Nicorette, Quitline, The Cancer Council New South Wales (TCCN) and the National Health and Medical Research Council (NHMRC); and for alcohol were Diageo, Australian Nightclub and Bar Association (ANBA), Australian Associated Brewers (AAB), Australian Clearinghouse for Youth Studies (ACYS), Alcoholics Anonymous (AA), NSW Department of Health (NSWDOH), and National Drug & Alcohol Research Centre (NDARC).

A brief description of each organisation was given in cases where participants may not have been aware of the nature of the source (for example 'interest group' or 'cigarette manufacturer'). Participants were asked to identify their perception of these organisations, as a source, for information relating to the health effects of cigarette smoking and alcohol, on the basis of six items designed to measure various dimensions of source credibility (non-expert-expert, unethical-ethical, biased-unbiased, inaccurate-accurate, unbelievable-believable, worthless-valuable). Participants rated their assessment on seven point scales ranging from 1 (low perceived credibility) to 7 (high perceived credibility).

Participants: The participants were 103 undergraduate marketing students taking compulsory second year subject, who were invited to participate on a voluntary basis. Of the 94 who responded (response rate 91.26%), 68 (66%) were female, with 66 (70.2%) of participants in the 18-21 year age bracket, and all but one student (98.9%) aged between 18 and 25 years. The majority of participants were full time students (97.9%), domestic students (78.7%), and had an average weekly income of $250 or less (63.8%).

Results

Participants' credibility ratings for the organisations of interest can be considered in terms of both the overall rating and the scores given to each of the six individual dimensions. The results for each of the two behaviours under investigation are provided, below.

Cigarette Smoking: As shown in Table 1, the TCCN and NHMRC attracted the two highest overall (composite) credibility ratings, scoring 34.32 and 33.72 respectively, the difference between their scores being only marginal and both significantly different to the overall average composite score of 27.87 ($t = 9.475$, $p = .000$ and $t = 8.671$, $p = .000$, respectively). Quitline was also rated as a relatively high credibility source, with an average score of 32.56 ($t = 6.643$, $p = .000$). Nicorette represented the median score, with a rating of 27.99 ($t = .203$, ns); while the ANSM received a similar rating with a score of 25.65 ($t = -3.445$, $p = .001$). PMI attracted the lowest rating (mean = 19.77, $t = -10.386$, $p = .000$), with industry group the ITGA also receiving a relatively low score (mean = 21.77, $t = -7.732$, $p = .000$).

Table 1: Perceived Credibility of Sources of Information on Health Effects of Smoking

Source	Composite score	t	Sig.	Expert	Ethical	Unbiased	Accurate	Believable	Valuable
Cancer Council NSW	34.32	9.48	.000	6.12	6.12	4.60	5.82	5.76	5.91
National Health & Medical Research Council	33.72	8.67	.000	5.96	5.73	4.90	5.69	4.72	4.85
Quitline	32.56	6.64	.000	5.62	5.78	5.61	5.41	5.52	5.67
Nicorette	27.99	.20	.840	5.02	4.85	3.84	4.69	4.72	4.85
Non-Smoker's Movement of Australia	25.65	–3.45	.001	4.22	4.73	3.39	4.27	4.41	4.63
International Tobacco Grower's Association	21.77	–7.73	.000	4.53	3.32	2.97	3.63	3.63	3.68
Philip Morris International	19.77	–10.39	.000	4.30	2.77	2.56	3.45	3.37	3.19
Average	27.87	-	-	5.09	4.75	3.82	4.69	4.72	4.82

Alcohol consumption: As shown in Table 2, the scores of those two sources that received the highest overall rating were again very similar, with NDARC perceived as the most credible, with a score of 34.35 (t = 10.120, p = .000), closely followed by the NSWDOH (mean = 34.04; t = 10.084, p = .000). ACYS represented the median score, with a rating of 29.59, while AA scored above the median (31.19) and AAB below the median (24.47). Diageo, with a score of 22.01, received the lowest rating of the seven sources (t = -7.29, p = .000), with participants rating ANBA as being only slightly more credible (22.78).

Table 2: Perceived Credibility of Sources of Information on Health Effects of Alcohol

Source	Composite score	t	Sig.	Expert	Ethical	Unbiased	Accurate	Believable	Valuable
Diageo	22.01	–7.290	.000	4.31	3.56	3.01	3.81	3.76	3.63
Australian Nightclub and Bar Association	22.78	–5.447	.000	3.98	3.69	3.29	3.74	3.75	3.94
Australian Associated Brewers	24.47	–3.475	.001	4.51	4.05	3.23	3.95	3.99	4.12
Australian Clearinghouse for Youth Studies	29.59	2.110	.038	4.90	5.19	4.42	4.85	5.02	5.20
Alcoholics Anonymous	31.19	3.416	.001	5.17	5.32	4.41	5.16	5.23	5.37
NSW Department of Health	34.04	0.084	.000	5.94	5.88	5.09	5.64	5.63	5.79
National Drug & Alcohol Research Centre	34.35	10.120	.000	6.06	5.80	5.36	5.72	5.66	5.73
Average	28.13	-	-	4.98	4.78	4.12	4.69	4.70	4.81

Individual dimensions: PMI (smoking) and Diageo (alcohol), who rated lowest on overall perceived credibility in their categories (19.77 and 22.01 respectively), both received a moderate rating for the individual dimension of expertise (t = – 4.031, p = .000), but the lowest scores in their category for the ethical, unbiased and value dimensions. The NHMRC, TCCN, NSWDOH and NDARC, who were perceived as being the most credible sources, all attracted high ratings on dimensions of unbiased, ethical, expertise and valuable.

Discussion

In terms of overall perceived credibility, the non-commercial sources clearly stand out – including two Government agencies (NSWDOH and NHMRC), a high profile charity (TCCN) and a research centre in a tertiary education institution (NDARC). On the basis of relative scores they attracted, the sources perceived as being of neutral credibility were Nicorette and the NSMA for information regarding the health effects of smoking; and AAB, ACYS and AA for information regarding alcohol. These organizations were, respectively, an organization with a commercial interest in encouraging smoking cessation, an interest group, a local industry group, a less prominent charity group and an 'informal society' or 'fellowship.'

The lowest levels of perceived credibility were the large commercial companies PMI and Diageo (for smoking and alcohol respectively). Essentially these two sources were representative of those for profit entities who are increasingly committing resources to education programs targeted at discouraging use of their products. The results provide evidence to support claims that commercial organisations may not in fact exist as credible sources for public health messages, at least of this nature. Essentially, then, concerns over their ability to communicate an appropriate message may indeed be warranted, suggesting that their effectiveness in terms of persuading audiences has the potential to be somewhat limited.

While the overall rating were effective in terms of identifying the different levels of perceived credibility in regards to the sources, examination of those individual dimensions on which they were assessed is useful in terms of gaining an understanding of precisely *why* the source was perceived as being either more or less credible. Analysis of these dimensions lead to the identification of those that were most influential in determining a source's overall perceived credibility, as well as the establishment of a number of interesting relationships between both certain dimensions and overall perceived credibility, giving substance to the hypothesis that where a source is perceived as being of high (low) credibility, it is not necessarily the result of all of its components receiving a similarly high (low) rating. These patterns were relatively consistent across both behaviour categories.

Implications and further research: While the sample size for this study was relatively small and predominantly female, and only a limited number of organisations were selected for inclusion, it has still produced a number of important findings regarding source credibility in the context of public health campaigns that target smoking cessation and responsible alcohol consumption. Essentially, not-for-profit organisations were perceived as being highly credible, while those organisations with a primarily commercial orientation attracted the lowest credibility ratings. On the basis of the characteristics of those sources that attracted neutral scores, it appears that a number of factors might contribute to the neutralization of a source's level of perceived credibility, including the level of public awareness of the organisation as well as the extent to which it is driven by commercial gain. This study also offers some insight into the dimensions of source credibility and the extent to which they contribute to overall credibility. The findings gave substance to the argument that one overall credibility rating is largely ineffective in that it provides little insight as to the composition of a source's perceived credibility, and that a far more effective approach is to consider various dimensions individually and the interaction between them. However, further study is required in order the understand whether these different perceived levels of credibility will, in fact, induce differing levels attitude change amongst the target audiences when social marketing messages are attributed to them.

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