

The attribution-of-responsibility for occupational stress model in a catholic education system: organisational distancing

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The attribution-of-responsibility for stress model

The attribution-of-responsibility for stress model was developed in studies of a large public education system in New South Wales (McCormick, 1997a; McCormick, 1997b; McCormick and Solman, 1992a; McCormick and Solman, 1992b). The model is essentially concerned with how teachers in an education system cognitively organise domains to which responsibility can be attributed for their occupational stress. Karl Weick (1978) suggested that schools and school systems may be conceptualised as loosely-coupled systems. One possible consequence of loose-coupling is that rather than thinking of themselves, their schools, education authorities and salient others in terms of sub systems within sub systems within systems, teachers may conceptualise these entities as being at varying distances from the self. The more loosely-coupled an entity is with an individual teacher, the more distant the entity is conceptually. Teachers may be expected to develop schemas which relate self to these other entities (Lord and Foti, 1986). One might expect, for example, teachers to generally conceptualise their school organisation as relatively closer to self than the education authority within which they work. In this sense

Although Attribution Theory is generally concerned with causal attributions for specific life events (Forsterling, 1988; Jaspers, Hewstone and Fincham, 1983, Weary, Stanley and Harvey, 1989), some researchers have taken account of the part played by earlier experience and specifically, the development of schemas (Anderson, 1991; Weary, Stanley and Harvey, 1989). Relating this to the occupational stress of teachers, the latter may be expected to develop attribution schemas which explain, or attribute responsibility for aspects of their occupational stress, when the perceived source of that stress is relatively stable over a period of time. For example, a teacher may develop an attribution schema for stress associated with misbehaving students, when some students are perceived to be consistently misbehaving over time.

Although not all stress is negative (Selye, 1976), an important aspect of the attribution-of-responsibility model is the negative nature of distressing occupational stress. This introduces, for some teachers, a notion of success or failure. Barone (1995), for example, found that human service workers reported significantly less stress, when required to sign their names to a survey of work stress, than those who completed the form anonymously. For some teachers, "coping" with occupational stress may equate with personal success and "failing to cope", particularly when the distress is significant, with personal failure. This sense of failure renders the attribution phenomenon known as the self-serving bias salient to the

attribution-of-responsibility for stress model (Anderson, 1991; Forsterling, 1988; Weiner, 1985).

Drawing the various elements of the attribution-of-responsibility model together, teachers may be expected to develop attribution schemas which attribute responsibility for their stress to various domains. Incorporated within these schemas is the psychological mechanism of distancing of those domains. Moreover, teachers will attribute greater responsibility for their stress to domains which are distant from the personal domain (self), distancing the failure (stress) from self.

"Stress as failure" and "conceptual distance" are central to the attribution-of-responsibility model. It is intended, in this study, to incorporate other established and empirically-supported phenomena. Namely, the "basking in reflected glory" and "cutting off reflected failure" phenomena (Cialdini, Borden, Thorne, Walker, Freeman, and Sloan, 1976; Cialdini and Richardson, 1980; Snyder, Lassegard and Ford, 1986). The latter phenomena can readily be identified with the "tendency for people to publicize a connection with another person who has been successful" (Cialdini et al., 1976 p.366). Although initially concerned only with an individual's strategy of enhancing his or her image for an observer (Cialdini et al., 1976), this view was complemented when Snyder et al. (1986) suggested that "...cutting off reflected failure can be understood as an image-protection tactic: that is, the severing of associations with others who have failed, in the interest of avoiding a negative evaluation by others (*and oneself*)" (italics this author's emphasis, p. 383). That is, Snyder et al. (1986) proposed, and supported empirically, the view that there are two related but distinct phenomena; stronger evidence was found for the "cutting-off-reflected failure" process, than for the "basking-in-reflected glory" process. The results of the latter study can be used to extend the attribution-of-responsibility model. This is shown in a much simplified form, diagrammatically in Figure 1. Note that language used here, for the purpose of comparing distances, is only intended to communicate relative differences.

As a basis for this study, it is proposed that stimulation of an individual, to attribute responsibility for occupational stress to a particular entity, engages a rich, higher order schema, containing lower order attribution schemas. Which attribution schema is selected will be affected by the individual's perception of the success or failure of that entity. If the entity is perceived to be successful, then it is located relatively near the individual, and a relatively low degree of responsibility is attributed. If perceived to be unsuccessful, then it is located relatively distant from the individual, and a relatively high degree of responsibility is attributed. For, example, if an individual is a member of a highly successful organisation, she or he feels close to that organisation, and so attributes less responsibility for occupational stress to the organisation itself. Moreover, as self-reported levels of stress are based on perceptions, one may predict that levels of stress reported are consistent with the attribution pattern.

The study reported here has been guided by the following hypotheses:

H1: Teachers who believe that an education authority to which they attribute responsibility for their occupational stress is successful will attribute significantly less responsibility to that education authority than teachers who believe that the education authority is a failure.

H2: Teachers who believe that an education authority to which they attribute responsibility for their occupational stress is successful will report significantly less stress associated with that educational authority than teachers who believe that the education authority is a failure.

Method

Sample

Six Catholic secondary schools were randomly selected within one metropolitan Catholic education system in New South Wales (NSW) Australia. There are eleven Catholic Education systems in NSW, each administered by its own bureaucracy called the Catholic Education Office (CEO). Teachers at each school were asked to volunteer to participate in the study. Each participant was allocated to 1 of 3 groups, in such a way that the numbers in each of the groups were approximately equal for any school. The final number of teachers in each group was 40. Fifty eight teachers were male and 62 were female.

Instruments

The questionnaire consisted of 3 sections. The first section had an item requesting information on teachers' sex and another on the number of years each teacher had worked for the CEO. The second section was a set of 20 items, scored on a five point Likert-type scale, which were concerned with potentially stressful aspects of teaching. The items were prefaced by "Below is a list of some possible sources of stress. Please indicate ... how stressful each is for you". These were adapted for the Catholic teachers, by replacing "Department of Education" with "CEO", from a set used previously with public school teachers and based upon the attribution-of-responsibility for stress model (McCormick, 1997a). The third section was a set of 9 items (Society, peers, the Church, the Government, superiors, your school as an organisation, parents, the CEO, yourself, students) prefaced by the statement "Below are listed persons and institutions whom you may, or may not, consider responsible for your occupational stress. Please indicate how responsible you feel each is ... Choices range from 1-not at all to 5-extremely". An important aspect of this study was the inclusion of two contrived pieces of text, which are reproduced in Appendix 1. Both were written in a genre consistent with an extract from an official report or evaluation. However, one described the CEO as more successful than its public school counterpart whilst the other described the reverse. For clarity, the group which was exposed to the scenario in which the CEO was relatively successful shall be called "CEO-successful"; the group which was exposed to the scenario in which the CEO was relatively unsuccessful shall be called "CEO unsuccessful"; the third group is the control group.

Although the manipulation was clearly about perceived success, or failure for the CEO, other items and aspects were included, primarily for two purposes. First, it was considered desirable to test the proposition that the manipulation could have non-specific effects in domains unrelated to the CEO, hence negating the main thrust of the study. Second, it was considered that the actual purpose of the contrived text would be less readily discerned by participants if the questionnaire contained a broader, coherent range of items.

Administration

The instrument was administered to small groups in the teachers' schools at times of the day when the teachers were not required to teach. Overall, three distinct groups were established. Immediately before completing the questionnaire, teachers in group 1 were required to read the contrived text which portrayed the CEO as relatively successful, group 2 were required to read the text portraying the CEO as relatively unsuccessful. Control group 3 did no reading preliminary to completing the questionnaire. At each administration, teachers were reminded that the research was concerned with the occupational stress of teachers

and were asked to read the contrived texts, if in groups 1 and 2, and to complete the questionnaire, without discussion.

After the questionnaire was administered to all participants in a school, each teacher was individually debriefed and the nature of the contrived texts and the purpose of the experiment were discussed.

Results

Factor analysis

Although the sample size $n=120$ was smaller than desirable for confirmatory factor analysis (Loehlin, 1992), it was still considered the appropriate technique to establish the extent to which the structure found with a sample of public school teachers (McCormick, 1997a) was evident with teachers in the Catholic school system. Consequently, a four factor model, identical to that found with the (McCormick, 1997a) public school data was hypothesised for the 20 item sources of stress set, but found to be inadequate ($\chi^2 < 0.05$, GFI=0.71, AGFI=0.64, RMSR=0.25, $\chi^2/df=3.33$). Considerations of structural differences between the public and Catholic education systems suggested an arguably more appropriate model for the Catholic teachers. Public school teachers' in McCormick's (1997a) study did not differentiate the Department of Education from government and other external forces. However, the CEO was likely to have been differentiated by teachers in the Catholic Education System. Hence, a 5 factor model was proposed which separated the factor discussed above into two factors, *CEO domain* and *external domain*. This model was considered adequate ($\chi^2 < 0.05$, GFI=0.81, AGFI=0.75, RMSR=0.20, $\chi^2/df=1.78$) given the sample size, the χ^2/df statistic and that it was theoretically meaningful. Moreover, it was a more satisfactory model given the primacy of the CEO in the manipulation.

The five factors essentially are concerned with the extent of occupational stress experienced in domains whose organisation is consistent with the attribution-of-responsibility for stress model. That is, the domains have a conceptual distance from the self. The *student domain* is concerned with stress attributable to students and consists of items such as "difficulty in motivating students" and "having to deal with students who constantly misbehave". The factor *school domain* is concerned with the school as an organisation in which stress may occur because of a lack of support from the principal and peers and consists of items such as "lack of a supportive and friendly atmosphere" and "not being appreciated by the principal". The factor *personal domain* is related to stress from personal inadequacy exemplified by "feeling of not being suited to teaching" and "personal failings". *CEO domain* consists of items such as "the relationship the CEO has with its schools" and "unrealistic demands from the CEO". The factor *external domain* refers to aspects of the environment "beyond" the CEO. For example, "the conviction that the education system is getting worse" and "the government's education policies". Unweighted factor scores were generated for each of the factors. It is important to distinguish between these factors and the responsibility items. The factors reflect self-reported stress in domains at varying conceptual distances from the teacher, and measure perceived level of occupational stress. The responsibility items measure the degree of responsibility for occupational stress attributed to specific entities. So these constructs are related but distinct.

Hierarchical regression analyses

Hierarchical regression analyses were carried out as recommended by Kerlinger and Pedhazur (1973). Biographical data were recoded into dummy variables and regressed, with two-way interactions, on each of the five factors and the attribution of responsibility scores.

The order of entry took into account a logical hierarchy of explained variance (sex, years of teaching for the CEO, group membership, then two-way interactions). This method is equivalent to analysis of variance, but avoids the potential problems associated with the use of a raft of ANOVA tests.

For most variables, there were no significant differences, and treatment group differences only occurred for the CEO domain and responsibility-Church, suggesting that there was no generic effect from the manipulation. Statistically significant differences are shown in Table 1.

Males reported significantly greater stress in the *CEO domain* (male mean=2.83, female mean=2.30). Figure 2 illustrates the significant sex X group membership interaction. Whilst there were no statistical differences between treatment groups for *responsibility-CEO*, perusal of the group means showed a trend in the anticipated direction. That is, the descending order of the degree of responsibility attributed was: CEO unsuccessful, control, CEO successful (2.79, 2.56, 2.50 respectively).

There was a statistically significant difference between males and females (male mean=2.05, female mean=1.76) for *responsibility-Church*. However, again there was a sex X group membership interaction which is illustrated in Figure 3.

There were statistically significant differences between males and females for *responsibility-self* (male mean=2.79, female mean=3.31) and *responsibility-students* (male mean=2.78, female mean=3.15).

Discussion

The significant main effect sex differences are consistent with what was found in an earlier study (McCormick, 1997b) and a general result that females tend to make more internal attributions for failure than males (Feather and Simon, 1975). Whilst the latter may also be relevant for the significant sex main effect for *responsibility-Church*, it should also be acknowledged that there is empirical evidence to suggest that females generally have more positive attitudes towards religion than males (see, for example, Levitt, 1995).

Hypothesis 1 was not supported, although, as has been noted, there was a trend evident. Hypothesis 2 was not directly supported, but qualified support was provided by the significant sex by *CEO domain* interaction. Two points are worth noting. First, Table 2 shows that although a trend was evident for females, it was clearer for males. Second, the perception that the CEO was an unsuccessful organisation may have been more salient for the CEO unsuccessful group than the CEO being successful was for the CEO successful group.

That the interaction of sex by group membership should be significant for *responsibility-Church* is explainable, in part, by the relationship of the Church and the CEO. Each CEO is diocese-based with a bishop wielding the ultimate authority. In a sense, a CEO may be a split personality, particularly for its Catholic teachers. Although there is typically a number of Catholic religious filling positions in a CEO and much of the activities of the CEO would be expected to be embedded in Catholic doctrine, a CEO is also an employing body and arguably a somewhat distant bureaucratic entity. Notwithstanding this, the mean scores of the males and females, particularly in the control group, are somewhat surprising. It is highly speculative, but, assuming that the control group is representative of the other groups before the manipulation, it is possible that these differences are able to be explained by the generally different ways which males and females in the treatment groups reacted to the contrived texts. Both males and females may, in most circumstances, distinguish the Church

as an institution from the CEO. However, exposure to the contrived texts may have emphasised the Church's role in the CEO. This may have resulted in both males and females re-evaluating and perhaps clarifying the Church's responsibility for their stress. In terms of the attribution-of-responsibility for stress model, the males may have generally moved the Church closer to self and the females generally further away from self. However, the speculative nature of this explanation needs to be reinforced and further research is needed to test this proposition.

This study has provided some inconclusive evidence that the reporting by these teachers of stress associated with an education authority, involves an attribution process with identifiable sex differences for internal and external attributions. Males generally externalised more than females. There is evidence that the perceived success or failure of an education authority interacting with the sex of the teacher played a part in the level of stress reported to be associated with the education authority.

Figure 1. Schema model for attribution of responsibility for stress

Table 1. Statistically significant differences for stress domain factors and attribution scores

Dependent variables	Biographical variables	df	F
CEO domain	sex	1	11.39***
	sex X group membership	2	3.98**
responsibility-Church	sex	1	4.98*
	sex X group membership	2	2.21***
responsibility-self	sex	1	5.81*
responsibility-students	sex	1	4.02*

* $p < .05$

** $p < .01$

*** $p < .001$

Figure 2. CEO domain means for males and females by group membership

Figure 3. Responsibility-Church means for males and females by group membership

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Appendix: contrived reading material

Summaries by State:

NSW Catholic Education Offices

KEY RESULT 3.3.1

Clear evidence exists that in NSW the central offices of the Catholic education systems (CEOs) are considerably more successful in the administration of education programs than the public school counterpart, the Department of School Education.

Note

The rapidly changing climate for education in Australia, in the last decade, has had far-reaching effects on the administration of all education systems, as discussed earlier (see 3.2.4). The data analyses show that the Catholic Education Offices place greater emphasis on the outcomes of educational programs than the central office of the Department of School Education. Moreover, although inconclusive, there is evidence that their more effective administration is related to their relative success in program outcomes.

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