Adolescent Students’ Beliefs about Aggression and the Association between Beliefs and Reported Level of Aggression: A Study of Senior High School Students in Ghana

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ABSTRACT

This study examines the gender differences among Ghanaian adolescent students’ beliefs about aggression and its association with their reported level of aggression. A total of 800 students selected from eight same-sex senior high schools participated in the study. It was hypothesized that male and female students will score high on the instrumental and expressive beliefs of aggression respectively. Instrumental belief will be positively related to reported level of aggression while expressive belief will relate negatively with reported level of aggression. The EXPAGG (Revised) Questionnaire and the Fuch’s Questionnaire on levels of aggression were the instruments used. It was found that male students scored high on the instrumental belief scale and female students on the expressive belief scale. Instrumental beliefs about aggression correlated positively with reported levels of aggression while expressive beliefs about aggression correlated negatively with reported levels of aggression. The study adds to our understanding of the relationship between beliefs and levels of aggression by considering it in a non-western culture.

INTRODUCTION

There seems to be agreement among researchers on the differences in the forms of aggression among adolescents. Researchers have found that while boys employ more direct aggression than girls, girls use more indirect aggression than boys (Borkgquist, Lagerspetz & Kankianen, 1992; Campbell et al., 1997; Crick & Groteter, 1995; Osterman, 1999; Owusu-Banahene, 2005; Tapper and Boulton, 2004). However, the reasons for the sex differences remain controversial (Tapper & Boulton, 2004). Whilst some authors suggest that sex differences may have a biological basis (Campbell et al., 1997), others place more emphasis on cultural influence (Eagly & Wood, 1999), the socialization process of children (White, 2000), and use of the effect/danger ratio (Osterman, 1999). Tapper and Boulton suggest that to get a full account of the reasons for sex differences in aggression, a mechanism by which biological pre-dispositions and cultural influences are translated into behaviour is required.

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Tapper and Boulton (2004) cite one such possible mechanism as the differing beliefs about aggression. This view had earlier been pointed out by Campbell et al. (1997) as far as gender differences in aggression are concerned. Campbell and colleagues identified beliefs about aggression as the role of social representation in aggressive behaviour while Archer and Haigh (1997a) and Tapper and Boulton (2004) refer to it as the beliefs about aggression. Campbell et al. (1997) further categorize beliefs of aggression into two, an expressive belief about aggression and an instrumental belief about aggression. Archer (2004) explains that instrumental beliefs about aggression emphasise the necessity of aggression and its effectiveness in making others comply. These beliefs serve to justify actions. Expressive beliefs about aggression emphasise loss of control in an aggressive incident. They serve to excuse actions.

Women tend to view their aggression as expressive, while men tend to view their aggression as instrumental (Archer, 2004; Campbell 1999). For instance, Archer (1997) reports that women tend to view aggression, particularly physical aggression in expressive terms, as a loss of control, whereas men tend to view it more instrumentally, in terms of having control over someone.

These differing beliefs about aggression have been put forward as a possible causal influence on the level of aggression (Archer & Haigh, 1997a; Campbell et al. 1993; Campbell, et al 1999). Archer and Haigh (1997a) predict a link between belief about aggression and level of aggression. Referring to the expectancy value theories of Fishbein and Ajzen, (1975) and cognitive social learning theory by Bandura (1973), they suggested that the anticipated consequences of aggression might influence behaviour. According to Archer and Haigh, the instrumental scale from their modified version of EXPAGG would be associated with positive anticipated outcomes of aggression whereas the expressive scale would be associated with more negative anticipated outcomes. They, therefore, predicted that instrumental beliefs would show a positive correlation with aggression while the expressive beliefs would show a negative correlation. Since the items on their scale tended to be concerned with physical aggression, they also predicted that the correlation between an instrumental belief and level of the aggression would be higher for physical aggression than for verbal aggression.

Using these scales to examine instrumental and expressive beliefs, Archer and Haigh (1997a) examined the relationship between belief about aggression and self-reported aggression among university students. They used Buss and Perry’s (1992) Aggression Questionnaire (AQ) as their measure for the respondents’ level of aggression. The aggression questionnaire contains four sub-scales: physical aggression, verbal aggression, hostility and anger. As predicted, there were significant correlations between scores on the physical aggression subscale and the instrumental scale for both men (r = .53) and women (r = .50). However, the correlation between the instrumental belief and verbal aggression was lower, 0.31. The researchers did not report separate correlations for the male and female respondents.

It is clear from these studies (Archer, 2004; Tapper & Boulton, 2004) that there is a correlation between one’s belief about aggression and one’s level of aggression. This idea is supported by both theoretical and empirical evidence.

The purpose of this study was to examine gender differences in beliefs about aggression among Ghanaian adolescent students in senior high schools and to investigate the relationship between adolescent students’ beliefs about aggression and their level of reported aggression. The research hypotheses are: (1) male adolescent students would obtain a higher score on the instrumental scale of aggression than female adolescent students; (2) female adolescent students would obtain a higher score on the expressive scale of aggression than male adolescent students; (3) there is a positive relationship between adolescent students’ instrumental belief in aggression and their reported level of aggression; and (4) there is a negative relationship between adolescent students’ expressive belief in aggression and their reported level of aggression.

The present study differs from previous research in two main ways. First, correlational studies between beliefs and levels of aggression, and the sex differences in the beliefs about aggression, were all conducted in western cultures. Their findings lack generalizability in non-western cultures (e.g., in the Africa countries). Differences in the social and cultural influences within the two cultures that could affect the direction or the strength of relationships among phenomena. Conducting the present study in an African context widens the cultural generalizability of the findings. Secondly, while most work on beliefs...
about aggression focused on early adulthood (e.g., Archer & Haigh, 1997a, 1997b; Campbell et al. 1997) and mid-childhood school pupils (Tapper & Boulton 2004), the present study focuses on adolescent students (that is middle and late adolescents).

**METHOD**

The descriptive survey design was used for the study. A total of 800 adolescent students were selected from eight senior secondary schools in the Ashanti Region of Ghana. They were made up of 400 males from four boys-only schools and 400 female adolescent students from four girls-only schools. Both random and non-random sampling procedures were used in selecting participants. The quota sampling technique was used to select the four boys’ schools and four girls’ schools and also to select 100 students from each school selected. A simple random sampling procedure was used to select individual students to participate from each of the eight selected schools. The student, therefore, was the sampling unit. The ages of the participants ranged between 14 years to 19 years, with the mean age of 16.5 years.

**Instrumentation**

The research instrument used for the study was a questionnaire. Some sections of the questionnaire were adopted from existing questionnaires while other sections were developed by the researchers. The EXPAGG (Revised) Questionnaire was adapted to examine the adolescent students’ beliefs about aggression. The EXPAGG (Revised) Questionnaire was designed by Campbell, Muncer and Coyle (1992). It is a psychometric measure of social representation of aggression or the beliefs that individuals have about aggression. The EXPAGG (Revised) Questionnaire is made up of eight items on Expressive Scale and eight items on Instrumental Scale. It has a Likert response scale. Respondents are to indicate how much they agree or disagree with each statement by choosing one of five responses: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree.

Fuch (2003) developed a questionnaire to measure students’ level of aggression. This was adapted to measure students’ level of aggression in the current study. This subset of the questionnaire is made up of 21 items. The items are concerned with verbal violence, physical violence against objects in school, physical violence against classmates and psychic violence against classmates. The items in this section of the questionnaire are designed along a 5-point Likert response scale with the following responses: never, seldom, occasionally, often, and very often. Respondents were required to indicate how often they personally joined in the listed acts. The reliability co-efficient (coefficient alpha) for the questionnaire used for the study was 0.73.

**Data Collection**

The questionnaires were administered by the researchers with assistance from class teachers after permission had been sought from the head of the selected schools. The questionnaires were administered to students in class groups with each class taking theirs at different times. In each class, the researcher sexplained to the students the essence of the study and also took them through the set of instructions for each of the sections of the questionnaire. The average response time for the questionnaire was 30 minutes. The selected students responded to the questionnaire in class and returned it after completing. The return rate for the questionnaire administered was 97.8%.

**RESULTS**

Hypothesis 1 investigated sex differences in adolescent students’ instrumental belief about aggression. The t-test for independent measures was used for data analysis. The results are presented in Table 1.
Male adolescent students obtained a higher score on the instrumental belief about aggression (M = 35.05, SD = 2.4) than female adolescent students (M = 20.38, SD = 7.36). On the average, the spread of the scores was greater among the females than males. The differences in the mean scores was statistically significant, t (778) = 37.67, p < .05.

Hypothesis 2 also investigated sex difference in adolescent students’ expressive beliefs about aggression. The t-test for independence measures was used for the data analysis. The results are presented in Table 2.

Female adolescent students obtained a higher score on the expressive scale of aggression (M = 32.74, SD = 4.85) than male adolescent students (M = 15.50, SD = 3.42). The difference in the mean scores was statistically significant, t (779) = -57.66, p < .05.

The correlation between adolescent students’ level of instrumental aggression and their level of reported aggression was tested (hypothesis 3). Pearson correlation was used to determine the extent of the relationship between the variables and a correlation coefficient of .60 was obtained.

The results for hypothesis 3 show that there was a positive correlation between adolescent students’ level of instrumental belief about aggression and their reported level of aggression, indicating that adolescent students who hold a high level of instrumental belief about aggression reported a higher level of aggression. The correlation was significant, r (776) = .60, p < .05.

The relationship between adolescent students’ level of expressive belief about aggressive behaviour and their level of aggression was also tested using Pearson correlation. The result shows a negative correlation between expressive beliefs about aggression and level of aggression, (r = -0.62, N = 779). This indicates that adolescent students who hold high level of expressive belief about aggression exhibit a lower level of aggression. The correlation coefficient was found to be significant, r (777) = -.62, p < .05.

**DISCUSSION**

Hypothesis 1 sought to determine if male adolescent students would obtain a higher score on the instrumental scale of aggression than female adolescent students. The data showed that male adolescent students obtained a significantly higher score on the instrumental scale of aggression than female adolescent students. This finding is consistent with the findings of Campbell (1999) and thus provides support to the finding that, in general, males are more inclined to describe their aggression in instrumental terms. Tedeschi, Smith and Brown (1974) suggest that males endorse instrumental aggression because of...
the benefits inherent in it. They identified these as having one’s needs met by others as well as the personal informal justice used to remedy personal affronts by those who lack access to formal legal process. African males, through socialization, learn to be domineering and seek to control others. They resort to physical ways of resolving conflicts. They, therefore, have a stronger belief in the use of instrumental aggression compared to females. The social expectation that males should be physical and strong compared to females reinforces their instrumental values. Wolfgang and Ferracuti (1967) argue that high instrumental values of males establish and maintain public face and private self-esteem. Wolfgang and Ferracuti (1967) argue that high instrumental values of males establish and maintain public face and private self-esteem. Campbell (1999) related instrumental social representation of aggression to justification of aggressive acts by an aggressor. The actor accepts responsibility for the act but denies the inherent blameworthiness of his or her action. For example, in the EXPAGG (Revised) Questionnaire adapted, an instrumental representation item like “aggression is necessary to get through to some people” shows aggression as intentional and justifiable action. Campbell argues that males view their aggression as a form of legitimate social control of others’ misbehaviour.

In the boys’ schools, the majority of students held the view that the best way to deal with others in a conflict situation on campus or outside campus was to use physical means such as fighting, destroying offenders’ properties, or attacking offenders’ personality. This belief among the male students often results in quarrels and confrontations in their dormitories. This perception also informs their behaviour whenever there is a conflict between the student body and the school authorities. In Ghana, school demonstrations and student unrest between boys and school authorities is a common occurrence, but this is rare in girls’ schools. This may be because male students believe that the use of physical and destructive means in conflict situations (especially against school authorities) sends a strong signal of their disapproval of the issue. In such student demonstrations and unrest in Ghanaian boys’ Senior Secondary Schools, the students accept responsibility for damages done to schools’ properties and agree to repay the cost but shift the blame to the school authorities for failing to consider their view, ignoring their concerns, or taking a decision without their consent.

The acquisition of this instrumental social representation of aggression among males is inherent in the use of reinforcements and punishments during their socialization process in childhood. During their socialization process, Ghanaian boys are encouraged and rewarded (by social approval) for exhibiting characteristics of bravery, having control over problems that arise during play, fighting back at those who threaten or fight them, showing skills and ability of strength and courage, and above all, being a champion in the group. Boys who often cry, run away for fear of being victimized, look timid or avoid physical activities that test their strength are reprimanded by their colleagues and some older men. They are encouraged to be courageous as “a man”, since a man is supposed to be strong, brave and courageous. These ideas and behaviour patterns develop into their belief systems and make boys feel the need to behave according to this social expectation of men.

Research hypothesis two sought to find out if female adolescent students would obtain a higher score on the expressive scale of aggression than male adolescent students. Female adolescent students obtained a significantly higher score on the expressive scale of aggression than male adolescent students. This finding is consistent with the research findings of Archer and Haigh (1997b), Campbell and her colleagues (1992, 1997), Campbell (1999), and Tapper and Boulton (2004). The result provides support to the findings that females hold a stronger expressive social representation (or belief) of aggression than males. Campbell (1999) argues that the expressive belief about aggression that females hold reflects the inner guilt that females hold when they exhibit acts of aggression which society sees as a “taboo” for females. She notes that expressive representations or beliefs about aggression are “excuses” that females use to account for their aggression. She observes that in general, females hold an expressive belief about aggression, and this is a reflection of regretted loss of self-control caused by high level of stress.

The socialization process of Ghanaian girls during their childhood and the use of reinforcement techniques account for female expressive beliefs about aggression. Unlike boys, Ghanaian girls are discouraged from engaging in excessive physical activities. They are positively reinforced for exhibiting socially approved feminine behaviour such as showing care and sympathy for friends and also showing lady-like acts in the way they talk, walk and in how they carry themselves. They are expected to avoid
masculine games such as climbing of trees and fighting. Girls who exhibit masculine behaviour such as fighting and being aggressive are reprimanded or punished. These socially approved behaviours for females are usually learned early in life and reinforced by relevant others such as parents, siblings, and friends.

Females grow up believing that it is socially unacceptable for a female to engage in aggressive behaviours, particularly physical and direct bodily aggression, since these are masculine features not characteristic of females. This belief makes females feel guilty when they resort to aggression to show their anger or disapproval of a situation. They see their aggression as “loss of self-control, caused by high level of stress” (Campbell, 1999, p. 245). In Ghanaian Senior Secondary Schools, female students who engage in physical aggressive acts such as physical fighting, slapping or kicking peers in conflict situations are called by nicknames to show that such behaviour is a deviation from the standard and acceptable norm. Names include “yaa asantewaa” (a heroine), “man-woman”, “iron-lady” or “witch”. However, on the whole, female students in Ghana do not employ direct physical aggressive behaviour in registering their displeasure with other students or between the student body and school authorities. In fact, it is rare to hear of school demonstrations or student unrest in girls’ schools in Ghana.

Although conflict between the student body and school administration may arise, female students tend to use the student-teacher consultative councils to resolve issues. In situations where students fight among themselves in the dormitories or the classroom or playground, it is common to find the students involved weeping afterwards to show their remorse for fighting. They also explain to school authorities that they lost their self-control due to extreme provocation from their peers, resulting in a physical attack. In the girls’ schools studied, the students mostly employ indirect aggressive methods to “fight back” at those who annoy or provoke them. These include gossiping about their aggressors, insulting each other, and refusing to talk to peers as a way of showing their disapproval.

It is of interest to note comments on the stigmatization of female aggression by society, particularly by men (Campbell, 1999). White and Kowalski (1994) argue that such stigmatization may serve to four purposes: to maintain female dependence upon men for protection; to exclude women from warfare and from consequent political power; to deflect attention from the fact that much female aggression is in response to men’s domestic abuse; and to control the use of aggression by women against dependent children. Campbell (1999) observes that given the taboo nature of female aggression and the greater institutional power of men, females will more likely subscribe to “excuses” as an explanation for their engagement in aggression rather than “justify” their aggressive behaviour.

Research hypothesis three and four sought to find out if there is a correlation between adolescent students’ beliefs about aggression and their reported level of aggression. The data showed that there was a positive correlation between adolescent students’ level of instrumental belief about aggression and their reported level of aggression, while in the case expressive belief and level of aggression there was a negative relationship. The correlation coefficient for instrumental belief and level of aggression was quite strong (r = .60) while that of expressive and level of aggression was 0.-62. These findings are consistent with the findings of Archer and Haigh (1997a), Campbell and colleagues (1993, 1997); Campbell (1999) and Tapper and Boulton (2004). These results provide further support to the findings that people who hold a high or have more instrumental social representation of aggression (or instrumental belief of aggression) would obtain higher score or report a high level of aggression. In other words, people who hold a high level of instrumental belief about aggression will exhibit or report a higher level of aggression. In like manner, people who score high on the expressive belief scale would obtain lower score or report a low level of aggression.

In recent times, however, Campbell (1999) proposed an alternative account of the relationship between the beliefs about aggression and the levels of aggression. She argues that beliefs about aggression are causally independent of levels of aggression and that any association may result from a third variable, say social reinforcement. She supports her assertion by explaining that instrumental and expressive beliefs about aggression are “post hoc” rhetorical devices employed by socially situated individuals to explain their actions” (Campbell, 1999, p. 213). The relative position of men and women in society in general and in relation to aggression in particular has an impact on the kind of explanation they are likely to offer for
their aggressive action. For instance, men, mostly in position of authority will justify their aggression against others, whilst women, who are mostly subordinates to the authority of men, would use excuses to explain their aggression. For example, males typically believe that “the best thing about physical aggression is that it makes the other person get in line”, whilst females typically believe that “her aggression comes from losing their self-control”. Campbell, therefore, suggests that the beliefs about aggression are a function of the sex of the aggressor. Tapper and Boulton (2004) argue that “Campbell’s interpretation of a causal link between beliefs and levels of aggression remains viable for children” (p. 144). They urge against definitive statements to suggest that the level of one’s beliefs about aggression causes the person’s level of aggression.

Observation of how adolescent students in Ghanaian Senior Secondary Schools exhibit their aggression confirms the views of Campbell (1999) and Tapper and Boulton (2004). During the study, it was observed that some students engaged in aggressive behaviours due to the social reinforcement they receive from their peers or gang members. In an earlier study among adolescent students in Ghana, Owusu-Banahene and his colleagues (2000) found that peer influence had the highest ranking on the causes of aggression among adolescent students. In the boys’ schools studied, the activities of gangsters and cliques on campus are quite common, although such groups are forbidden. Some of the gangs are named “terror squads”, “Israel” and Al-qaeeda”. Some members of the gang or cliques exhibit aggressive behaviour because of the vicarious reinforcement they receive from other gang members. Newberger (2002) agrees on the strong effect of negative peer group influence on the other students. He noted that “boys in groups may pay off each others aggressiveness and commit acts most of them would be incapable of – or at least far less capable of – if they were acting alone” (p.5). A student commented on this by noting that, “some of the students are influenced to misbehave in school by their seniors or their gang members, who turn out to be their role models because of their popularity.”

In as much as the researchers support the role of social reinforcement as a factor that can explain the positive association between level of instrumental belief about aggression and level of aggression, the researchers are not convinced by Tapper and Boulton’s (2004) claim that the positive correlation between the two variables could be “due to similarities in the variables that influence both belief and behaviour” (p. 21). In the present study, students’ instrumental belief about aggression was shaped independently of the extent to which they engage in aggressive behaviours. This is because the EXPAGG (Revised) Questionnaire that measured beliefs about aggression did not make reference to “levels” of aggression, which makes it seem unlikely that the students could be reinforced for a correspondence between instrumental belief and level of aggression. Instead, the significant positive association may have been a result of similar contingencies between the two variables. For example, peers who reinforce a student for behaving aggressively may also reinforce his or her talking about aggression in an instrumental manner. Similarly, fellow students or adults who punish aggressive behaviour may likewise disapprove of a student justifying aggression in an instrumental manner, whilst reinforcing the student who explains aggression in an expressive manner. Since an instrumental belief about aggression involves justifying one’s aggressive acts, whilst an expressive belief involves excusing aggressive acts (Campbell, et al. 1997), it is plausible to believe that peers who encourage aggressive behaviours would simultaneously justify their use, and it is difficult to see how a peer might encourage aggressive behaviour whilst at the same time excusing it as “loss of control” (Tapper & Campbell, 2004).

The strength and limitations of the current study also need to be acknowledged. The use of Ghanaian adolescent students in the study strengthens the cultural generalisability of the research findings that males explain their aggression in instrumental terms whilst females explain their aggression in expressive terms. Similarly, fellow students or adults who punish aggressive behaviour may likewise disapprove of a student justifying aggression in an instrumental manner, whilst reinforcing the student who explains aggression in an expressive manner. Since an instrumental belief about aggression involves justifying one’s aggressive acts, whilst an expressive belief involves excusing aggressive acts (Campbell, et al. 1997), it is plausible to believe that peers who encourage aggressive behaviours would simultaneously justify their use, and it is difficult to see how a peer might encourage aggressive behaviour whilst at the same time excusing it as “loss of control” (Tapper & Campbell, 2004).

In conclusion, the present study supports and adds to our knowledge of sex differences in the beliefs about aggression and the relationship between beliefs about aggression and reported levels of aggression.
Males report a high level of instrumental beliefs about aggression and females report of a high level of expressive beliefs about aggression. This finding supports existing research and of particular interest was recorded in Ghana, a non-western culture. Additionally, the study adds to the relatively smaller body of research linking beliefs and reported levels of aggression, particularly for adolescent students. The finding of significant relationship between beliefs and levels of aggression provides impetus for longitudinal studies that can address causal hypotheses.

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