

**The Escalation of Aggression in people as measured by the progression of
insult severity**

**A Thesis
Submitted in partial fulfilment
Of the requirements for the Degree
of
Master of Arts in Psychology
By
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2009

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Acknowledgements

First of all, I would like to acknowledge my supervisor, Dr Andy Martens, who provided an outstanding amount of support and advice without which I would have not been able to complete my thesis. Thank you for your continuous hard work and enthusiasm and for agreeing to supervise this research project, it was and is greatly appreciated. I would also like to thank Professor Garth Fletcher for his help when required. Furthermore, I would like to thank Phil Kavanagh and Liz Kyonka who supported me with remarkable tips for my research, as well as Matt for his very useful tips on statistical analysis.

Finally, special thanks to my family and friends who always supported and encouraged me and were there every step of the way.

Abstract

Research investigating the underlying causes and factors involved in violence and aggression has suggested there is a tendency for aggression to escalate as a means to justify prior aggression. In addition, past research has also examined the effect of perceived similarity towards the target of aggression on intensity and escalation of aggression. This study looked at the relationship between initial level of aggression and the escalation of aggression and at perceived similarity to the target of aggression as a possible factor influencing this escalation. Individuals engaging in severe initial aggression who experience higher perceived similarity to their targets of aggression should be more prone to justifying their actions and so might escalate more. To examine this, subjects could administer any of 10 levels of negative reinforcement (insults) to a learner for incorrect responses. Half of the subjects were required to practice this procedure with a mild and half with a severe insult. Results indicated that an effect of perceived similarity emerged, with individuals using less severe insults when perceived similarity to the learner was high. Contrary to predictions, high-perceived similarity to the learner stemmed escalation for participants insulting the learner with a severe insult initially. Moreover, participants who insulted with a mild insult initially escalated in their aggression when perceived similarity was high. In addition, an interaction effect of gender and perceived similarity was found, with men engaging in more severe subsequent aggression than women when perceived similarity to the target of aggression is high. The limitations, further directions, and implications of this study are discussed.

Chapter 1

Introduction

The escalation of violence has troubled us throughout history. From robbery to genocide and war. This escalation may result in various heinous forms of violence, such as rape, murder, and even war. This in turn threatens the welfare of the world and the people who live in it. It is a known fact that most murders that occur are a result of arguments or altercations that grew out of domestic fights, jealousy or arguments over money (Berkowitz, 1993). Laboratory studies have also shown a tendency for aggression to escalate (Buss, A.H., Booker, & Buss, 1972; Russell, Arms, Loof, & Dwyer, 1996). Many have used the so-called 'aggression machine' (Buss, 1961). This is where the subjects are asked by the experimenter to assign a task to a learner (confederate of the experimenter) and deliver electric shocks when errors are made. Over the course of repeated trials, these studies have shown that participants tend to give increasingly severe electric shocks to learners, a sign of escalating aggression, even in the absence of instructions to escalate (Bandura, Underwood, & Fromson, 1975; Buss, et al., 1972; Geen & Stonner, 1973; Goldstein, Davis, & Herman, 1975; Russell, et al., 1996).

One explanation for this tendency for increasingly aggressive acts, drawing from cognitive dissonance theory (L. Festinger, 1957) is that the continued aggression is a means to justify the prior aggression. That is, this continued aggression may help to show that the initial aggressive act was justified and in turn shield the perpetrator against any guilt or discomfort that would otherwise result from that initial act of aggression (Lifton, 1986). This may occur particularly when people commit more to that act (Walster & Prestholdt, 1966).

The current study tested this idea by assessing whether engaging in more severe verbal abuse initially will motivate an individual to engage in harsher subsequent verbal abuse, particularly when experiencing high similarity to the target of aggression. In other words, this research study investigated whether insulting another person more severely will lead to harsher subsequent insults as opposed to using with more mild insults initially. This effect should emerge particularly for those with high-perceived similarity towards their target, since they should experience even more dissonance as they are harming a person who they perceive to be similar to themselves. Research looking at the effects of perceived similarity on the cycle of aggression found that in some cases, similarity fuels the escalation of aggression (Lange & Verhallen, 1978; Shuntich, 1976). That is, aggressing against a similar other should lead to greater guilt and discomfort and thus to a greater need to justify such behaviour. Therefore, the effect of severe initial aggression on subsequent aggression should be evident particularly for participants feeling more similar to the target.

1.1 The aggression escalation cycle explained

This basic hypothesis can be explained in terms of the cognitive dissonance theory (Leon Festinger & Carlsmith, 1959). This states that individuals tend to justify behaviours that are discrepant with their beliefs. When a person holds a certain belief about something and is forced to act in opposition to that belief, a discrepancy between the person's beliefs and attitudes occurs. The tension of dissonance motivates people to change either the behaviour or the belief in an effort to avoid the distressing feelings. The greater the commitment to one's behaviour or the more important the issue, for example violence and aggression against others, and the greater the discrepancy between the behaviour and the belief, the higher the magnitude of dissonance the person will feel. Thus, Festinger (1957)

argues that one way to reduce this discomfort is for the individual to see the behaviour as justified, which in turn will lead to an increase in that behaviour. Several empirical studies (Chase, Treboux, O'Leary, & Strassberg, 1998; Fujihara, Kohyama, Andreu, & Ramirez, 1999; Mintah, Huddleston, & Doody, 1999; O'Leary et al., 1989; Winstok, Eisikovits, & Fishman, 2004) reported in their findings that people tend to justify aggressive behaviour, whether it was during dating, at school or in sports.

Interestingly, Walster and Prestholdt (1966) suggested that a possible factor contributing to people actively engaging in behaviour justification is the degree of commitment to that behaviour. They proposed that individuals, who are quite uncommitted to a behaviour they do not necessarily agree with, would anyhow attempt to over-compensate to make up for that behaviour. However, when strongly committed to a behaviour perceived to have strong negative consequences, the discrepancy between one's values and actions would motivate the individual to justify the action by changing the beliefs surrounding that behaviour. The more disliked the behaviour to which a person commits himself is, the greater the magnitude of dissonance the person will feel. In consequence there will be an increase in viewing the committed act as acceptable (Brehm, 1960). Commitment then may be a crucial variable in determining whether people will over-compensate for the initial misjudgement or attempt to reduce their discomfort by justifying the behaviour and increasing their engagement with it (Walster & Prestholdt, 1966).

1.2 Previous research on the escalation of aggression

There is evidence from research conducted around the world that is consistent with the possibility that aggression has the ability to escalate, with minor acts of aggression turning into more serious and harmful aggressive behaviours. This could be a direct consequence of dissonance from commitment to an initial violent act. For example, Miller, Dinitz, and Conrad (1982) analyzed the criminal records of Ohio men who have been convicted of more serious offences, such as murders or aggravated assault (Berkowitz, 1993). They found that only thirty percent of these men had only one offence in their criminal records. Most of the convicted men had a long history of violence and antisocial behaviour that lasted into middle age. This seems to show that severe aggression may be a result of initial acts of less severe aggression.

More evidence comes from a modified verbal operant-conditioning situation (Goldstein, et al., 1975), where participants were given repeated opportunities to punish a confederate of the experimenter, however, instead of delivering electric shocks, subjects could administer positive reinforcement to a "learner" for correct verbal responses or administer negative reinforcement for incorrect responses. Findings indicated that participants steadily increased the intensity of the punishment over the trial blocks. In other words, subjects gave more intense reinforcements as the learning trials progressed. In addition, those who administered negative reinforcements devalued the learner relative to those who administered positive reinforcements. This could be interpreted in terms of the dissonance theory—perhaps individuals who committed an act of aggression against another attempted to justify this in order to cope with the discomfort and guilt experienced. In this example, participants did so by developing an increased disliking towards the target of aggression and giving increasingly harsh punishments.

In another example, Chase et al. (1998) researched dating aggression and its justification in high-risk adolescents as a response to interpersonal problems. It was found that use of aggression against a dating partner is predictive of an individual's use of aggression against a subsequent dating partner. However, this finding was only true for males. In yet another study, Staples & Walters, (1964) subjects were asked to deliver electric shocks as punishments for "errors" to a confederate of the experimenter. During a training period, subjects in the experimental condition were verbally reinforced for delivering shocks of relatively high intensity. Increases in intensity of shock were significantly greater for subjects who were reinforced than for those who were not. However, this increase was confined to subjects who used an initially high or medium level of intensity. Subjects using low initial intensities were not influenced by the reinforcement procedure. This could be explained by arguing that subjects who engaged in higher intensities initially were more committed and so more susceptible to justifying their actions by increasing the severity of the electric shocks. That is those using higher levels of shock initially who thus felt particularly committed to their actions, might have felt they had already gone too far to try to go back now and so would experience a greater need to justify what they have done by engaging in aggression even more vigorously.

Investigating the notion that more severe initial aggression leads to harsher subsequent aggression than that of mild initial aggression, (Martens, Kosloff, Greenberg, Landau, & Schmader, 2007) developed a method in which participants believed they were killing bugs (though in actuality they were not). Participants were asked to engage in an initial bug-killing trial, in which they killed either one or five bugs, followed by a self-paced bug-killing task. The main finding of this study was that the more bugs the participants killed in the initial task, the more bugs they killed in the self-paced task. The

results showed that inducing greater initial killing led to more self-paced killing in the next task.

In addition, the authors measured the participant's perceived similarity to bugs before the study began—whether or not they perceived a connection with bugs; that is that we are all living creatures with the same basic needs. They reasoned that participants who reported high similarity to bugs should experience increased dissonance due to increased initial killing, and so be the most likely to justify this by killing more bugs subsequently. Indeed, prior work has suggested that perceived similarity towards a target of one's violent actions is more likely to be dissonance arousing. Research shows that people like those who share similarities with them and dislike those who differ from them in their attitudes, interests or physical appearance. Since people find aggressing against someone they like more difficult, then it seems possible to suggest that aggressing towards similar others should arouse dissonance. In accordance, similarity appears to play a significant role in the inhibiting of aggression. For example, some studies reveal that people have a tendency to show significantly more aggression to a dissimilar partner (Lange & Verhallen, 1978; Shuntich, 1976).

Consistent with this theorizing, similarity to a victim should render aggression towards that target dissonance-arousing. The effect of initial bug killing on subsequent bug killing emerged particularly for those who reported some perceived similarity to bugs prior to the study. In sum, the study is consistent with theorizing about cognitive dissonance and commitment (Walster & Prestholdt, 1966) in that the more aversive the initial behaviour, the more likely participants are to commit to their actions. That is, participants killing more bugs initially could have experienced greater commitment to their behaviour, as they might consider that they have already gone 'too far' to turn back, and so killed more as a means of reducing their dissonance.

1.3 The proposed research

The current study will further investigate the concept that commitment to initial acts of aggression increases subsequent aggression as a result of dissonance aroused from that initial act. Though the Martens et al. (2007) research specifically examined this hypothesis, it did so with bugs as targets of aggression, rather than with people. The present research aims to examine this hypothesis by examining people to utilize a verbal aggression paradigm. Participants chose the level of the verbal insult to use to punish a learner for incorrect responses (Appendix C). Specifically, participants were asked to listen to a recording of a person forming sentences with several pronouns. Their task was to look for sentences with the pronouns “I” and “WE” and insult the ‘learner’ whenever they heard a sentence without these pronouns. They were able to choose each insult from a provided list and the severity of these insults was recorded. Beforehand, however, participants were asked to complete a similarity questionnaire designed to perceived similarity to the learner in order to measure whether high similarity created greater dissonance from initial aggression. Then, in order to manipulate the initial severity of insults used, participants were divided in two groups to practice the insult procedure five times with either mild or severe insults. If the proposed theory is right and aggression escalates in order to justify the initial insults, then we should find that particularly those participants who feel more similar to the target (i.e., those who should experience dissonance from administering insults), using initial severe insults, should lead to a pattern of harsher successive insults.

Chapter 2

Method

2.1 Participants and Design

2.1.1 Participants

The study consisted of seventy-seven participants who were recruited from the University of Canterbury by emailing the psychology class list and by posting advertisement fliers around campus. The participants volunteered for the study in exchange for a seven-dollar UCSA voucher that could be used at any of the UCSA cafes around campus. One participant withdrew from the study after reading the information sheet and consent form. In addition, five participants were excluded from the analysis due to them having strong suspicions about the experimental procedure. The suspicions were around them realizing the insults will never reach the learner or that the experiment was more about their tendency to use more severe insults towards the end.

2.1.2 Design

As a result, the sample consisted of seventy-one subjects (21 males and 51 females), all university students, with ages ranging from 18 to 45 with a median of 23. Participants were randomly assigned to one of the two groups. One group practiced five times with a mild insult and the other group practiced five times with a more severe insult. Participants

were randomly assigned to these two groups by flipping a coin (heads = mild and tail = severe).

2.2 *Procedure and measures*

2.2.1 *Recruiting*

Both the advertisement flier posted and email message sent to recruit participants, contained a brief message saying participants are wanted for a learning performance and human behaviour study of 45 minutes in exchange for a seven dollar voucher. After participants who emailed back showing interest in participating, they were provided with several available times for the experiment and were then booked in.

2.2.2 *The pre-experiment session*

Before starting the recruitment process, the two learners were asked to come in and record the statements to be used in the experiment. They were each asked to make a short video about themselves and then read the sentences out loud, five for the practice task and forty for the experimental session. Their videos were then edited and separated into chapters. The first chapter was called 'Personal Introduction', where the learners talked for a couple of minutes about themselves. The next chapter was the 'Practice Task', where the learner read the five statements. This was then followed by the forty statements, each preceded by the respective statement number showing on a black screen (e.g. 'Statement 1').

When participants arrived for the experiment, they were seated at a table on the right side of the room. A laptop was positioned on the table and a video camera on a tripod faced the participant. They were then provided with a cover story for the experiment. The experimenter explained that “this is an experiment meant to study the effects of different types of feedback (rewards and criticism) on learning performance”. One group will offer rewards and one group will offer criticism and you are part of the group offering criticism.” The experimenter then continued saying that “a person will be acting as the learner. In the first phase, he/she was asked to form sentences with several pronouns (I, YOU, SHE, HE, WE and THEY). This was video recorded and you will be watching the recording only. Now, your job is to get him to form sentences with the pronouns ‘I’ and ‘WE’. You will do that by offering an insult every time you hear a sentence that does not contain ‘I’ or ‘WE’. You will also be recorded while doing this. This is because we will give your feedback to the learner and then ask him to form sentences again. We will be looking to see whether the feedback worked and if there are differences the second time the learner forms sentences as a result of receiving rewards or criticism”. The purpose of the cover story was to reduce suspicion about what the insulting task was really designed to measure, which was the escalation of aggression. The participants were then asked to read the information sheet (Appendix A) which would provide them with more details of how the experiment will unfold. If they still agreed to participate, they were then asked to sign the consent form (Appendix B).

After participants signed the consent form, the experimenter explained in detail what their role was during this experiment. There were two people who ‘acted’ as learners – one female and one male. Before starting the recruitment process, the two learners were asked to come in and record the statements to be used in the experiment. They were each asked to make a short video about themselves and then read the sentences aloud, five for

the practice task and forty for the experimental session. Their videos were then edited and separated into chapters. The first chapter was called 'Personal Introduction', where the learners talked a couple of minutes about themselves. The next chapter was the 'Practice Task', where the learner read the five statements. This was then followed by the forty statements, each preceded by the respective statement number showing on a black screen (e.g. 'Statement 1'). Participants were told that because they were not actually to meet the person acting as a learner, he/she was asked to make a short 2-minute video about themselves, which they were asked to watch. After watching it, the experimenter asked the participants to make a short video about themselves so that the learner can get an idea of who will be doing the feedback. Participants were informed that the learner would view this video recording when he/she formed statements again. The male participants were to be given the video recording of the male learner and the female participants were to be given the video recording of the female learner. This is to ensure that male participants would always insult another male and that the female participants would insult another female. Participants were told they could watch the video by pressing the space bar on the laptop which acted as 'play' and as 'pause' throughout the experiment. The participants were then asked to make a short video about themselves, in which they could say a few words about what they studies and what their interests were.

Once participants finished with the recording, they were asked to fill out a questionnaire in order to control for some baseline measurements. The similarity questionnaire (Perceived Similarity Questionnaire, PSQ; Appendix D) was designed to measure participants' perceived similarity to the learner. The questionnaire consisted of 12 Likert type items, designed specifically for this experiment, on a scale from one to five, where one is 'strongly disagree' and five is 'strongly agree'. The questions were from the physical (e.g. "I would say this person and I have similar physical features"), social (e.g.

“This person seems to engage in the same activities as I do”) and academic areas (e.g. “My career goals are quite similar to this person’s career goals”).

2.2.3 *The practice session*

Once participants had filled out the similarity questionnaire, they were asked to do a practice task in which they would have to listen to five of the learner’s sentences and offer an insult (mild or severe, depending on the group they were randomly assigned to) every time they heard a sentence that does not contain either ‘I’ or ‘WE’. Participants were provided with a list of insults (Appendix C) numbered from one to ten. The participants who were assigned to the mild group were asked to practice with insult number two (“That’s wrong”) and participants assigned to the severe group were asked to practice with insult number seven down the list (“You’re a jerk”). Once they listened to the sentence, they were instructed to press space bar, offer the insult if needed, then press space bar again to hear the next sentence. In the case of the sentence being correct and containing either “I” or “WE”, they were asked to reply with “OK, that’s fine”. In the practice task, participants heard two correct and three incorrect sentences. After the experimenter made sure that participants understood their role, they left the participant alone in the room to begin the practice task. Participants were also instructed to press space bar (which acts as pause) once they finished listening to the five practice sentences and knock on the door for the experimenter to come back.

2.2.4 *The experiment session*

After the practice task, participants were told they would proceed with the actual experiment. The experimenter explained that they would hear forty sentences like the ones from the practice task. The sentences were the same for both the female and the male participants. There were forty-five sentences formed in total (Appendix E), five for the practice task and forty for the experiment. An example of a correct sentence is “I was glad to find the bus pass in the kitchen drawer” and an example of an incorrect sentence is “She believed in Santa Claus for most of her childhood”. They were told they can press space bar to pause (just like in the practice session) and offer any insult they wanted from the list whenever they heard a sentence that did not contain either ‘I’ or ‘WE’. Participants were then instructed that if they heard a sentence that did contain “I” or “WE”, to offer the neutral response (ok, that’s fine) that they had practiced. Participants were then left alone in the room and were asked to call the experimenter back once they had finished listening to all the sentences.

2.2.5 *Debriefing session*

At the end of the experiment, participants were debriefed about the experiment, where the true purpose was explained in a sensitive manner. Participants were informed that their insults will never reach the learner and that there is no reason to feel bad about it. They were also told that the introductory video recording they made would be erased and not shown to anyone else. Then, the experimenter explained that the experiment was video recorded with the aid of another camera in the room and the reasons why participants were not aware of this. All participants were then given a re-consent to read through and were

informed that the video recording can be erased without even looking at it if they were not comfortable with this. If participants agreed with their video data to be used, they were asked to sign the re-consent form and were then given the seven-dollar voucher and dismissed.

Chapter 3

Results

3.1 Mean intensity of subsequent insults

The primary hypothesis for this study stated that participants practicing the insult procedure at a mild level, high similarity to the learner would lead to mild subsequent insults, whereas for the severe practice condition it would lead to harsher subsequent insults as a way of justifying the severe insult used in the practice task. High similarity could possibly lead to less aggression for participants in the mild condition because people are not committed yet to the aggressive act. On the other hand, using a severe insult, might commit people to this aggressive behaviour even more, and therefore, they would be more likely to make justifications for and thus engage more in their aggressive behaviours. Since participants insulted at a reasonably high level, they would feel committed to their actions and would feel they had gone too far with their initial insulting to insult less now, so would escalate in their insults to justify the initial action.

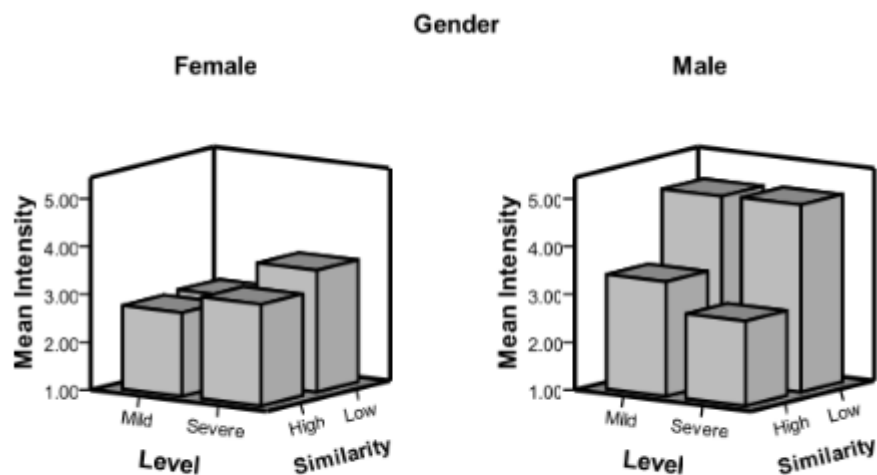
The mean intensity of the subsequent insults should therefore be the highest for those participants who practiced the insult procedure with a severe insult and who reported initial high-perceived similarity. This effect should be reversed for those practicing with a mild insult who reported high similarity to the learner, in that the mean intensity of insults should be the lowest in order to avoid feeling guilty.

Although not part of the original hypothesis, gender was also included as a predictor to test for any gender effects on subsequent insults used. While it is unclear whether men and women differ in their aggressiveness, it is relatively certain that they differ in the way they express aggression. According to theories regarding gender roles

(Fivush, Brotman, Buckner, & Goodman, 2000; Kinney, Smith, & Donzella, 2001; Zeman & Shipman, 1996), men might feel more comfortable insulting another person than women do. This could be attributed to women's tendencies to inhibit any direct aggressive urges (e.g., verbal or physical), while preferring to use more indirect forms of aggression (e.g., rumour spreading). Leading on from this idea, on average, men should use harsher subsequent insults during the experiment than women do.

FIGURE 1

Intensity of subsequent insults as predicted by practice task, perceived similarity to learner and gender

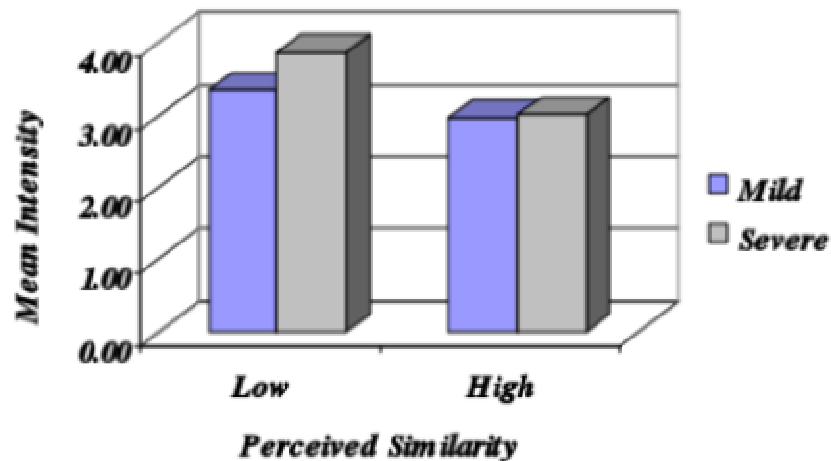


To examine this hypothesizing more closely, a median split was used to identify participants with low and high similarity scores on the continuous measure of perceived similarity (PSQ). Following from this, a 2 (mild vs severe practice task) x 2 (low vs high similarity) x 2 (female vs male) analysis of variance (ANOVA) on mean intensity of subsequent insults was conducted. In other words, the analysis looked at the effects of practice task, similarity and gender on mean insults level, as well as the effects of their

two-way and three-way interactions. For a complete graphical representation of these effects, see Figure 1.

FIGURE 2

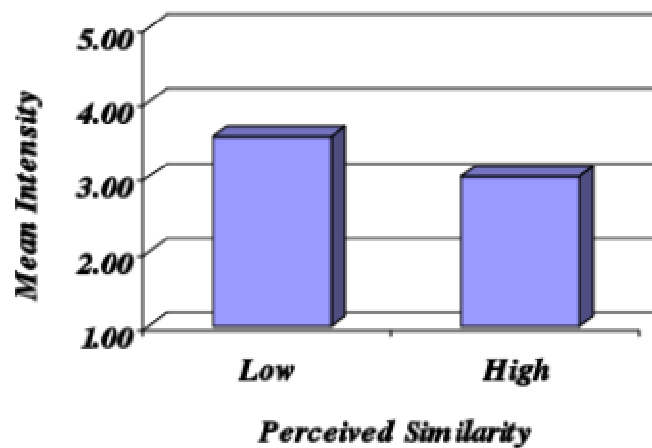
Effect of practice task and perceived similarity on mean intensity of insults



In this investigation, the combined effect of practice task and similarity on mean intensity of insults was of primary interest. However, there was no effect of this interaction on mean intensity level used, $F(1, 60) = 0.46$, $p = 0.50$. Though this predicted interaction did not emerge, we did find a main effect for perceived similarity (see Figure 3), $F(1, 60) = 7.33$, $p < 0.01$. Participants seeing themselves as less similar ($M = 3.54$, $SD = 1.59$) to the learner used more severe insults subsequently than those feeling more similar to the learner ($M = 3.00$, $SD = 1.27$).

FIGURE 3

Effect of perceived similarity on mean intensity of subsequent insults



Therefore, it would seem that high similarity inhibited participants from using severe insults subsequently. This likely occurred because, consistent with much research (Alimaras, 1976; Eidelman & Biernat, 2003; Lange & Verhallen, 1978; Shuntich, 1976; Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003), people like others who are more similar to them and empathize with them and therefore generally respond more positively to them and with less aggression. However, similarity did not interact with the severity of the practice insults as we expected. Instead of participants with high similarity to the learner, justifying discomfort experienced after the severe practicing of the insults, highly similar participants, regardless of practice level, gave more mild insults subsequently. Thus, severity of the practice insults did not appear to have any effect on high similarity participants. Perhaps this is because inducing participants to practice with severe insults did not commit participants to the act more than the mild insults, as we intended. Alternatively, perhaps highly similar participants simply did not justify their initial aggression under the specific conditions we set up in this experiment.

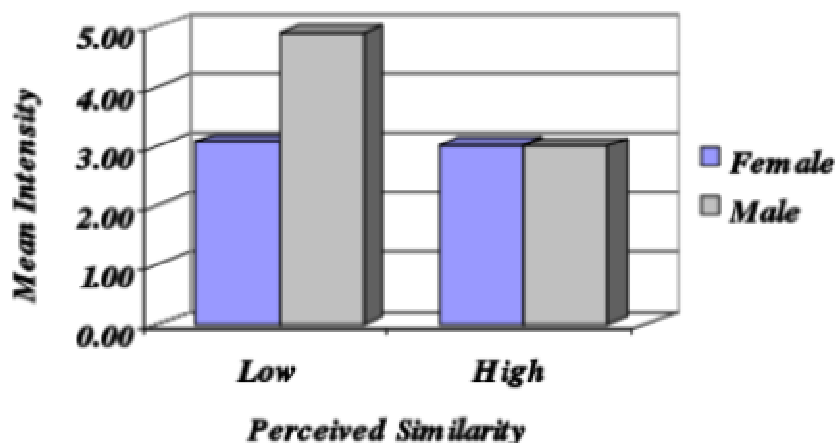
In addition a main effect of gender emerged, $F(1, 60) = 6.21, p < .05$, revealing gender differences in mean intensity level used. Females ($M = 3.03, SD = 1.22$) used lower

mean intensities than males ($M = 3.85$, $SD = 1.79$) when insulting the learner subsequently. This seems to be consistent with initial predictions, in that males generally score higher on verbal aggression than females. A suggested reason for this was that for females, displays of physical or verbal aggression are seen as less socially acceptable. It could be that women prefer other types of aggression (more indirect, such as rumour spreading), which would account for the difference in mean intensity level used by males and females when insulting the learner.

Further, the main effects of similarity and gender were qualified by a significant gender and similarity interaction, with $F(1, 60) = 4.40$, $p < .05$. As displayed in Figure 4, when perceived similarity to the learner was low, males ($M = 4.90$, $SD = 1.53$) used significantly more severe insults than females ($M = 3.06$, $SD = 1.32$), $t(32) = -3.44$, $p < 0.01$. The same effect was not found when perceived similarity was high, with males ($M = 3.01$, $SD = 1.13$) and females ($M = 2.99$, $SD = 1.57$) using similar mean intensity levels, $t(32) = 0.02$, $p = 0.98$.

FIGURE 4

Effect of gender on mean subsequent insults at two levels of perceived similarity to learner



It appears that females used lower mean intensities than males only when perceived similarity to the learner was low. A possible reason for this is although men seem to be less reserved than women about insulting another person, high similarity inhibited males from severely insulting the learner. That is, contrary to predictions based on dissonance theory, males in the high similarity condition might have experienced increased discomfort and in an attempt to reduce it used lower mean intensity levels subsequently. Alternatively, these results could be explained in terms of guilt levels as well. That is, the reason for males using harsher subsequent insults could be that females expected to experience more discomfort if using severe subsequent insults. This might have contributed to them using more mild insults throughout, as a way to avoid feeling guilty. The same kind of reasoning can be applied to explain the effect of gender and perceived similarity interaction on mean intensity level. That is, it could be that male participants in the high similarity condition expected to feel more discomfort if severely insulting a similar other and so used more mild insults in an attempt to avoid experiencing increased discomfort.

There were no other significant effects or interactions found, all p s > 0.25 ¹.

¹ The main analysis was also conducted in regression. The mean intensity of insults was regressed onto practice task, the continuous measure of perceived similarity and gender in a first step, their two-way interactions in the second step and three-way interaction in the last step. Gender and the interaction of gender and similarity significantly predicted mean level of insults. The effect of similarity was no longer significant, $t(64) = -1.40$, $p = 0.17$. Although the pattern of results remained the same. There were no other effects or interactions significant, all p s > 0.30 .

3.2 *Escalation of subsequent insults*

As findings revealed, more severe initial insulting and initial high similarity to the learner did not lead to harsher subsequent insults as predicted. Although participants did not vary as predicted in the mean intensity of subsequent insults, it could be that there was a difference in how much they escalated in insult level over the course of the twenty insults. Therefore, the next set of analyses looked at whether participants showed an overall escalation trend by increasing the severity of subsequent insults over the course of the experiment and whether this escalation differed depending on conditions.

According to initial theorizing based on dissonance theory, participants practicing with a severe insult and feeling highly similar to the learner should experience the greatest discomfort and show a greater need to cope with this discomfort than participants in other conditions. The initial prediction that I based on the dissonance theory, held that this need to reduce the discomfort would lead to participants looking to justify their initial behaviour by viewing their insults as acceptable. This in turn would lead to them increasing the severity of subsequent insults over the course of the experiment.

On the other hand, results so far have not supported this prediction. It could be that dissonance reduction worked in a different way with the escalation of verbal aggression. For example, perhaps participants tried to diminish excessive discomfort by progressively using less severe insults as the procedure went on and not by justifying their initial aggression. According to this line of reasoning, participants in the severe practice task, who reported high similarity to the learner, should de-escalate in their subsequent insults as a way of diminishing the discomfort experienced from the initial insulting.

To test this idea, a new variable was created to represent escalation of subsequent insults over time. For each participant a correlation coefficient was calculated by computing the

correlation between the intensity of each insult delivered and the order the insults were delivered in (the intensity of insult one represented first insult delivered and the intensity of insult twenty represented the last insult delivered). In this case, a high correlation coefficient would represent escalation of insult severity over time.

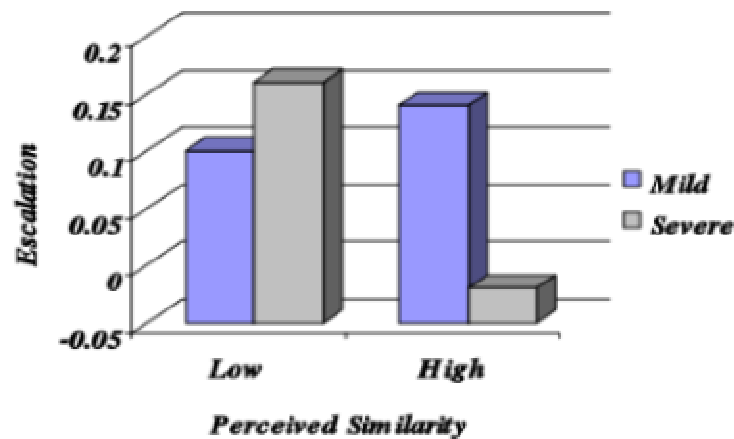
Then, a 2 (mild vs severe practice task) x 2 (low vs high similarity) x 2 (male vs female) analysis of variance (ANOVA) was conducted on the escalation of subsequent insult intensity over time to test for any interactive effects.

A significant interaction between perceived similarity and practice was found, with $F(1, 60) = 5.56, p < 0.05$. As Figure 5 depicts, for participants practicing with a mild insult. There was no significant difference in the escalation of subsequent insults between participants with lower ($M = 0.09, SD = 0.16$) and higher levels of perceived similarity ($M = 0.14, SD = 0.18$), $t(31) = -0.71, p = 0.48$. However, for those practicing with a severe insults, there was less escalation occurring when similarity to the learner was high ($M = -0.02, SD = 0.19$) than when similarity was low ($M = 0.16, SD = 0.19$), $t(33) = 2.58, p < 0.05$. In other words, high perceived similarity seemed to reduce escalation of insults among those who practiced with a more severe insult, but not for those practicing with a mild one.

This is consistent with the alternative explanation that participants in the severe condition, feeling highly similar to the learner, became less aggressive by using more mild subsequent insults, in order to diminish the guilt experienced from the initial severe insulting. High similarity to the learner acted as an inhibitor for further aggression, but only for participants practicing with a severe insult. At the beginning of this analysis, it was suggested that dissonance might have worked in a different way than predicted, and that is that it could have lead to participants in the severe high similarity condition to de-escalate in insult intensity in order to cope with the discomfort experienced.

FIGURE 5

Effect of practice task on escalation of subsequent insults at two levels of perceived similarity



However, results showed that participants in the severe high similarity condition did not really show a de-escalation of insults over time. As can be seen in Figure 5, the mean escalation coefficient for the high similar, severe practice participants, was about 0—where positive numbers reflect escalation and negative numbers would reflect de-escalation. Instead, it seems that high similarity stemmed escalation for participants in the severe condition. Perhaps in an attempt to cope with the discomfort experienced from the initial severe insulting, participants inhibited any tendency to escalate in their insults that emerged among other participants. The same inhibitory tendency did not seem to occur in participants with lower perceived similarity or those practicing with a mild insult. There were no other significant effects or interactions found to influence escalation of subsequent insults all $ps > 0.25^2$.

² The escalation of subsequent insults was also analyzed by regressing it first unto practice task, the continuous measure of perceived similarity, gender, their two-way in the second step and then their three-way interactions using a hierarchical regression. In this case, there were no significant effects or interactions found, with all $ps > 0.30$.

3.3 *Insult block analysis*

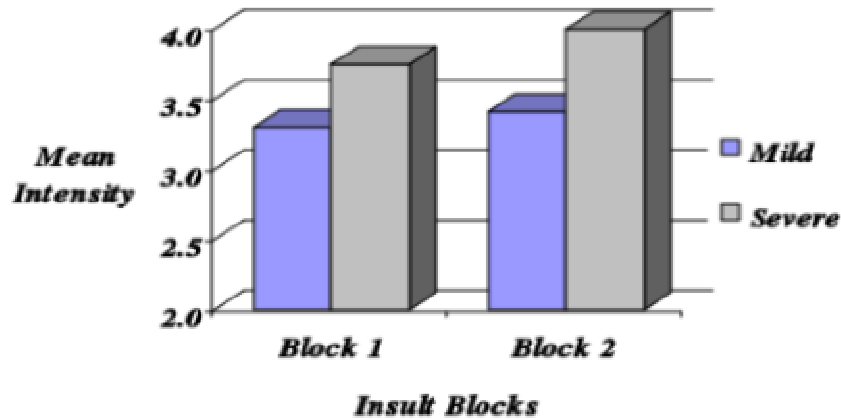
In summary, it seems that high perceived similarity to the learner lead to escalation of insults for participants in the severe practice task, but did not stop the escalation of insults for those practicing with a mild insult. Furthermore, there is the question of how come the similarity and practice task interaction was not significant in the analysis on the mean level of subsequent insults. Another way to look at escalation was to divide the insults delivered into two blocks of ten insults each and examine whether the level of subsequent insult intensity from one block to the next differed across conditions. This allowed for also looking at aggression levels over the course of the experiment.

To investigate this idea, a 2 (mild vs severe practice task) x 2 (low vs high similarity) x 2 (male vs female) x 2 (insult blocks: mean of trials 1-10 vs. mean of trials 11-20) ANOVA with insult block as a repeated measure was computed. Insult block escalation appears to have been at least partially dependent on the interaction between practice task and perceived similarity, $F(1, 60) = 5.32$, $p < .05$. It appeared in the previous escalation results that participants generally escalated over time, with the exception of participants in the severe practice task, where high similarity to the learner stopped escalation.

Examining participants low in initial similarity (Figure 6a), it appears that for participants in the severe low similarity condition.

FIGURE 6a

Effect of practice task for participants with low similarity scores on insult block escalation

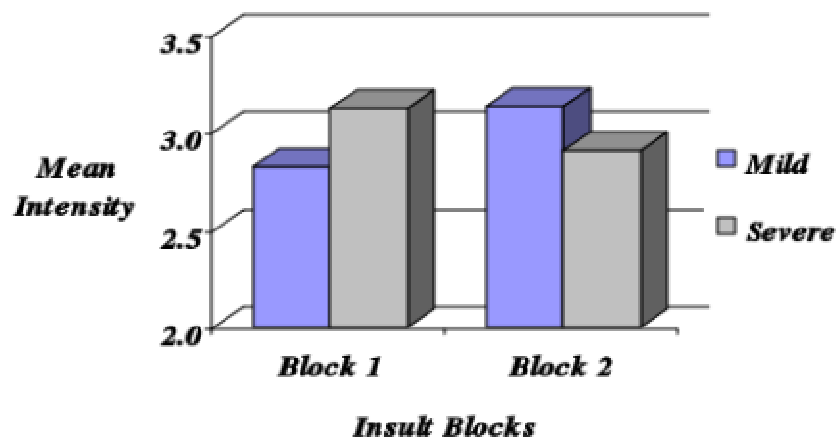


There was no difference between first ($M = 3.75$, $SD = 1.65$) and second block ($M = 4.03$, $SD = 1.58$), $t(11) = -1.31$, $p = 0.22$. There was also no difference between first ($M = 3.31$, $SD = 1.62$) and second block of insults ($M = 3.41$, $SD = 1.61$) for participants in the mild low similarity condition, $t(21) = -1.04$, $p = 0.31$.

However, examining participants high in initial similarity, we did find a significant escalation of subsequent insults for participants in the mild high similarity condition $t(10) = -2.46$, $p < 0.05$, with an increase in mean intensities from the first block ($M = 2.83$, $SD = 1.14$) to the second block ($M = 3.13$, $SD = 1.51$). Participants in the severe practice task showed no escalation from one block ($M = 3.12$, $SD = 1.43$) to the next ($M = 2.91$, $SD = 1.17$), $t(22) = 1.55$, $p = 0.14$, but the pattern, though not significant, is one of decreasing in intensity over time, from block 1 to block 2 (see Figure 6b).

FIGURE 6b

Effect of practice task for participants with high similarity scores on insult block escalation



This pattern of results is exactly the opposite of what we initially predicted. It was predicted that participants in the severe high similarity condition would escalate the most and high similar participants who practiced with mild insults would insult the least or de-escalate. Instead, it was participants practicing with a mild insult and who reported high initial similarity that escalated. Perhaps dissonance might still help explain the results, but it seems it worked differently than predicted initially. It could be that participants in the severe high similarity condition did not feel dissonance as expected because they thought of the committed act of aggression not as a choice, but as an instruction they had to comply with as part of an experiment. Perhaps the severe nature of the insults made them more aware of the fact that their insulting was a result of taking part in an experiment and so did not take them as seriously as participants in the mild condition did. That is, it became more salient that participants were just responding to the demands of the experiment, so they would have reduced personal responsibility, and thus reduced the guilt/dissonance experienced. That is, perhaps participants were able to find external justification for their behaviour and so did not need to change their views on aggression to justify their actions.

Therefore, for participants in the severe practice task, high similarity stopped any escalation of subsequent insults in an attempt to avoid feeling guilty.

However, maybe for participants in the mild practice task, the mild initial insults did not as easily allow for external justification. Because these mild insults were more subtle, perhaps when participants insulted at a mild level, they were less likely to blame the experimenter for their actions and more likely to blame themselves. Further, the mild initial insults used (“you were wrong”) are insults that the participants likely use more in real life and so may have felt real and believable, and perhaps were taken more seriously, leading to feeling more dissonance and guilt, particularly when feeling high similarity to the learner. Finding external justification for their behaviour (i.e., blaming the experimenter) would have been less feasible and so participants looked at other ways to justify their actions. According to initial predictions based on dissonance theory, in this case participants might have escalated in their subsequent aggression to justify their initial insulting by showing that it was an acceptable way to behave in the first place.

There were no other significant effects involving the repeated measures Block 1 vs. 2 factor, all p s > 0.10 ³.

³ Looking at the individual scores, there appeared to be oscillation based on whether participants just insulted the learner or offered a neutral response. That is, it seemed that the insults used straight after insulting the learner were not as severe as the insults used right after an affirmation. Except the within subjects after insult vs after affirmation effect, $F(1, 60) = 3.51$, $p = 0.05$, no other effects or interactions were close to being significant, all p s > 0.09

Chapter 4

Discussion

4.1 Background information

The present study tested the assumption that people who engage in severe initial aggression towards someone will engage in even harsher subsequent aggression, particularly when they see themselves as highly similar to that person. This prediction was based on Festinger's (1957) cognitive dissonance theory, which holds that an individual commits an act that goes against his/her beliefs, an incongruence/dissonance between their thoughts and attitudes occurs, making the individual experience increased discomfort. In an attempt to diminish or reduce the discomfort, people will try to justify their prior behaviour, regarding it as acceptable and thus increasing the intensity of that behaviour. In the severe practice task, it was predicted that commitment to the initial aggression would lead to participants experiencing greater discomfort. In attempting to diminish that discomfort, he/ she would engage in more of the same behaviour as a way to justify his/her commitment to a behaviour that is incongruent with his/her thoughts and beliefs. Moreover, high similarity to the learner should commit participants in the severe condition even more, thus leading to his/ her engaging in harsher subsequent insults. Participants in the mild condition would be quite uncommitted to their behaviour, whereas high similarity should ensure more mild subsequent insults as a way to avoid feeling guilty.

The interaction effect between the initial level of aggression and similarity to target of aggression was of main interest in this study, as it was predicted that the tension of dissonance would be greater when participants practice with a severe insult, particularly

when perceived similarity to the learner is high. The discomfort experienced by participants in this condition would motivate them to reduce or diminish it, by justifying the severe initial insulting, thus making it acceptable, which would lead to an increase in intensity when insulting subsequently.

To test this hypothesizing, the present research measured aggression by the mean insult severity. Specifically, participants took on the role of ‘teachers’ and tried to get the ‘learner’ (confederate of the experimenter) to use as many “I” and “We” sentences by insulting him or her whenever they did not use these pronouns. Before doing this, participants rated how similar they felt towards the learner and then took part in a ‘practice’ round where they were asked to practice insulting the learner with either a mild or a severe insult, depending on which group they were assigned to. Using these experiments, we were able to examine whether people high in initial similarity to the learner would interact with the severity level of insults they were led to use during the practice task.

Contrary to predictions, this interaction effect was not found. There was no evidence found to prove the theory that severe initial aggression leads to harsher subsequent aggression when target is seen as highly similar. What results did reveal however, was that high similarity to the learner stemmed any escalation of subsequent insults for participants in the severe condition. Moreover, it seems that high similarity did fuel the escalation of verbal aggression, but contrary to predictions, it was for participants practicing with a mild insult initially.

4.2 *Cognitive Dissonance*

Perhaps participants insulting with a severe insult initially and feeling highly similar to the learner, did not use more severe insults subsequently because they did not experience sufficient dissonance to motivate a change in attitude towards the prior behaviour. In fact, high similarity stopped participants in this condition from escalating or using more severe insults. A reasonable explanation for this could be that participants in this condition did not take their initial behaviour as seriously as it was intended. In other words, by telling participants to insult a similar person severely, made participants more aware of the context for their insults, and so were able to find external justification for their actions.

Once individuals assumed less responsibility for their initial aggressive behaviour, they would have considered their transgression as simply complying with the experimenter's instructions. As Brock and Buss (1962) argued, the greater the choice one has in carrying out an act of aggression, the greater the need to justify the aggressive act. As people are more likely to hold themselves more accountable for their actions when seen as being their own choice, the guilt and discomfort experienced would be greater. Therefore, by perceiving their actions as something they did not chose to do, there was no dissonance and thus no increased discomfort as predicted. As a result, perhaps in an attempt to keep from feeling guilty, particularly when similarity to the learner was high, participants used more mild insults during the experiment and so the subsequent insults were not harsher and there was no escalation found.

Alternatively, perhaps this occurred as a desire for participants to assert personal control over their actions. That is, Burger (2009) predicted in his replication of Milgram's experiments (Milgram, 1963) that a high desire for control would increase the likelihood that participants would act according to their own feelings rather than obeying the

experimenter and aggressing against the target. The same reasoning can be applied to this study in that the severe initial insulting that participants were told to do could have lead to a strong desire to re-assert their own will and take control of their behaviour. As a result, they chose to insult less severely subsequently in order to feel like they regained some control over their behaviour and thus no escalation occurred.

The same kind of rationalization cannot be used to explain the escalation of aggression found for participants in the mild condition with high similarity to the learner. Perhaps this is because with this condition, participants started out with lower insult levels and thus did not feel their behaviour was out of their control as insults were not as harsh and uncomfortable to use on another. In fact, in Milgram's experiments, the incremental nature of the task most likely contributed to the high rates of obedience (Gilbert, 1981, in (Burger, 2009)). Cialdini and Goldstein (2004) emphasized the importance of the gradual increase in demands as an effective tactic of changing attitudes and behaviour. Therefore, participants in the mild practice task would have started with lower levels, and by slowly increasing the intensity of insults, they would have already started to change the way they view themselves. Feeling similar to the learner would have increased people's guilt and discomfort and thus increase the discrepancy between the way they behaved and their values and beliefs. As a result, dissonance could still help explain the results. In the severe condition, participants regarded their initial aggression as complying with the experiment and felt they had no choice in severely insulting the other person. For participants in the mild condition however, it was less feasible to think that their actions were a consequence of participating in an experiment. Therefore, the sense of hurting the other person would be more real and would be dissonant with participant's ideas of what they should behave like. Festinger (1997) emphasized that personal responsibility for undesirable consequences is the ultimate cause for dissonance (Griffin, 1997). Therefore, for participants in the mild

practice task, their mild insulting did not allow for external justification, dissonance was experienced and so participants changed their attitudes in order to justify their actions. According to initial predictions based on dissonance theory, in this case participants might have escalated in their subsequent aggression to justify their initial insulting by showing that it was an acceptable way to behave in the first place.

Thus, it seems that high similarity has opposing effects on the escalation of aggression, depending on the level of initial aggression committed. When initial aggression towards another person is severe, high similarity inhibits it, however when initial aggression is mild, high similarity fuels the escalation of aggression. As suggested in the introduction, people are more inclined to like those who share similarities with them (Alimaras, 1976; Eidelman & Biernat, 2003; Vaes, et al., 2003). Therefore, an alternative explanation for this study's results could be that participants dealt with the dissonance experienced from initial aggression in a different way than predicted. That is, instead of changing their attitudes regarding verbal aggression, they diminished the discomfort experienced by using progressively less severe insults. Thus, since higher perceived similarity caused greater discomfort, participants in this situation decreased the severity of subsequent insults in order to cope with the guilt from severely insulting a similar other.

4.3 *Gender differences and perceived similarity*

Throughout history and still today, the majority of individuals who perpetuate violence are men. There have been many speculations as to why these gender differences exist. The current study looked at the extent to which males and females differed in their aggression and in this case verbal aggression in the form of the insults.

We predicted that males would generally be more aggressive than females, particularly when it comes to physical and verbal aggression. Since it is generally regarded as less socially acceptable for females to insult another person, it was expected that males will use harsher subsequent insults overall and will escalate more than females. Indeed, we found a consistent effect throughout the results and that was that males insulted more severely than females, particularly when perceived similarity was low. This is consistent with other work in which males engaged in more severe aggression than females, particularly when verbal and physical aggression were concerned (Arnold H. Buss & Perry, 1992; Crick & Grotpeter, 1995; Hubbard, 2001; Kinney, et al., 2001; Richardson & Hammock, 2007; Woodall & Matthews, 1993).

Due to the inconsistent research results as to which gender is more aggressive, the idea that gender differences in aggression appear to result from a complex interaction of biology, cognition, and socialization became more popular (Leonard, 2005). For example, there is a difference in how men and women are socialized regarding aggression. Aggression is not only tolerated in men, but is expected of them. Women on the other hand are expected to show higher levels of sympathy and empathy and to be less aggressive (Fivush, et al., 2000; Kinney, et al., 2001; Stapley & Haviland, 1989; Zeman & Shipman, 1996). The observed phenomenon of girls' tendency to display significantly less overt aggression (Cairns & Cairns 1994 in (Loeber & Hay, 1997)) and the development of other

ways of expressing anger may be partially subjective to the cognitive aspects of the sex-typing process. Bandura (1973) argued that low aggressiveness among women might not represent a lack of ability as such, but could be mainly a matter of inhibitions against performance. Therefore, one explanation of the finding that men are more verbally aggressive than women could be that women inhibit their tendencies for direct aggression.

Roles generate different expectancies when it comes to gender characteristics, which leads to different patterns of behaviour. These patterns however are transmitted to future generations through socialization processes (Eagly, 1987, 1997; Eagly, Wood, Diekmann, Eckes, & Trautner, 2000). Boys but not girls learn that aggressive responding is appropriate as part of a set of instrumental behaviours that are better suited for a masculine role. Expectations associated with the feminine role inhibit aggression as part of an expressive set of responses.

Alternatively, Richardson and Hammock (2007) suggested that more insight into the reasons for gender differences in aggression could also be provided by investigating the interactions of gender within the social and cultural context. According to Richardson and Green (1999), the differences between men and women in aggression depend on the type of aggression, the gender of the target, and perhaps the relationship to the target. Gender differences are subjective to situational factors, in that in laboratory settings, it seems that males tend to be more aggressive than females (Hyde, 1984). For example, when they are not first angered and are able to engage in direct, non-physical aggression, males tend to be more aggressive than females (Frodi, Macaulay, & Thome, 1977). In addition, gender differences are also more apparent when the aggression is justified, that is, when the experimenter asks them to behave that way. Moreover, the sex of the target, in this case the learner is also important. Despite the fact that some research studies found no differences in aggression toward women and men (Larsen, Coleman, Forbes, & Johnson, 1972; Levitt &

Viney, 1973; Silverman, 1971), most studies revealed that women in general are aggressed against less than men by both men and women in laboratory settings (Harris & Huang, 1974; Harris & Meyer, 1973; Taylor & Epstein, 1967; Taylor & Smith, 1974).

However, this gender effect on verbal aggression seemed to occur when participants reported initial low similarity to the target of aggression. A possible reason for this finding could be that high-perceived similarity acted as an inhibitor towards further aggression, explaining why men only used more severe subsequent insults when feeling less similar to the learner. Although this is inconsistent with initial predictions, which stated that high-perceived similarity would lead to more severe aggression, it seems to be in line with previous research looking at the inhibiting effect of high similarity to the target of aggression. That is, people have a tendency to inhibit their aggressive tendencies towards someone when he or she is viewed as having similar characteristics (Goethals & Perlstein, 1978; Lange & Verhallen, 1978). At the same time, there is evidence to show that men tend to be more aggressive towards strangers than towards friends (Hilton, Harris, & Rice, 2000). Therefore, this could explain why males used harsher subsequent insults only when reporting low similarity to the learner.

As it was suggested by several studies, the ability to empathize with the target of aggression is positively associated with less aggression towards that target. This could be one reason why males with high similarity to the learner did not use insults as severe as those experiencing low similarity to the learner. An ability to empathise implies an awareness of one's emotional state, the capacity to identify other people's emotions, possessing the capacity to respond sensitively to other people and among others, the ability to take on the perspective of another (Varker, Devilly, Ward, & Beech, 2008). As it is much easier to take on the perspective of a person similar to oneself, perhaps the ability to empathize was higher for males experiencing high similarity to the learner. With a less

similar person, perhaps males empathized less, and thus experienced less concern for the learner's feelings. This subsequently leads to an increase in insult intensities. Females however have a higher ability to empathize with others (Burger, 2009), and thus would have been more aware and concerned about the learner's suffering, whether they are similar to them or not. This would decrease the likelihood of females using harsher subsequent insults, regardless of perceived similarity to the learner.

Alternatively, it could be argued that being in proximity to a similar other would bring forth one's own values and beliefs and thus make one more likely to experience guilt and discomfort for hurting another person. As females have a tendency to experience more guilt than males overall and would generally expect to feel more guilt than males would for hurting another person, then their guilt and discomfort would have been as high regardless of similarity to the learner. Therefore, while males would be inhibited by high similarity due to increased guilt in using harsher insults, females would have felt inhibited both when experiencing low and high similarity.

4.4 Comparison of the present results with other research

These results are inconsistent with previous research studies looking at the escalation of aggression (Goldstein, et al., 1975; Martens, et al., 2007). For example, in their work, Martens et al. (2007) revealed that severe initial aggression fuels further subsequent aggression, particularly when the target of aggression is seen as similar. In this study, it was found that more bugs killed initially led to even more killing subsequently, particularly when similarity to bugs was high.

However, there are important differences in the two studies that may help explain the different pattern of results. One difference resides in the method by which aggression

was measured. In the bug-killing study, the experimenters asked participants to kill the bugs, whereas in the present study, participants were asked to insult the learner. This difference might make a difference to the extent to which participants committed to their actions. Since it is impossible to undo killing, this would be seen as having significantly more harmful consequences than insulting someone. Therefore, participants might commit more to their behaviour when killing bugs initially than when insulting with a severe insult initially. As there was more commitment at the start in the bug-killing study, then this might explain high similarity to bugs leading to more bugs being killed subsequently, but less subsequent insults in the current study.

Another difference worth mentioning is that in the bug-killing study the practice task involved manipulating the number of bugs killed initially. The current study consisted of participants insulting the learner with a mild or severe insult the same number of times during the practice task. It could very well be that by getting participants to use same number of insults, even though of different intensity, lead to less than significant differences in degree of commitment between the mild and severe practice tasks. Perhaps that by repeating the same severe act more than just a few times, an individual will commit more to their behaviour. Therefore, a follow-up study where both the severity and number of insults in the practice task could be manipulated might lead to results that are more in line with previous research (Goldstein, et al., 1975; Martens, et al., 2007).

The present results were also inconsistent with other research investigating the escalation of aggression. In a similar study, Goldstein et al., (1975) used electric shocks as a measure of the escalation of aggression, and asked participants to deliver same number of shocks initially (mild or severe). One important difference between the current research and the electric shock study was that in the present study, participants were not placed face to face with the target of their aggression. In the research conducted by Goldstein et al.,

(1975), participants faced their ‘victim’ while delivering the electric shocks. Therefore, it is possible that participants in the current study did not take their aggression to the target as seriously as their insults were all delivered via a video recording. Perhaps that by being face to face with their target in the electric shock study, increased awareness of the harm they were inflicting. Then it is possible that participants in the electric shock study showed stronger commitment, which increased the possibility of them escalating in their aggression as a way to justify their initial aggression and reduce the discomfort experienced from committing to a behaviour that strongly contradicts their beliefs.

4.5 *Implications*

Needless aggressive behaviour between individuals is an omnipresent issue faced by various cultures and societies around the world. People are often dealing with violence and aggression in various aspects of their lives (family, workplace or school), either as bystanders, victims or even perpetrators. The grief and potential harm resulting from aggression is a strong motivator for researchers and others alike to discover ways that might eventually help eliminate, or at least reduce, such aggression and the tensions that follow (Gabriel, Greve, & Killias, 2006). Statistics showed that for most criminals, serious crimes are usually preceded by more minor offences, such as shoplifting and robberies, which then progress into full-blown violence and aggression (rape, murder etc.).

Understanding how aggression escalates from minor conflicts to rape, murder and even worse, to war-like proportions, is fundamental in maintaining a calm, peaceful and civilized society. Understanding the causes and the workings of aggression could offer great insight into the prevention of its escalation in society. By looking into what drives children and adolescents to develop from minor troublemakers into full-blown criminals, or

how a simple argument ends tragically, we can begin to understand the factors that fuel such behaviours, as well as those that inhibit them.

By comparing these results with those of other research studies (Goldstein et al., 1975; Martens et al., 2007), it seems likely that the differences could be explained by taking into account the types of aggression used. The effects of verbal aggression on subsequent aggression may be different to those of killing bugs or delivering electric shocks. Perhaps other forms of aggression, such as killing or shocking someone may hold different characteristics that would make commitment and dissonance more likely, and in turn might make justification of and the escalation of aggression more likely. It could be that under certain conditions, pushing a person ‘too far’ towards aggressive behaviour might lead to more aggression subsequently, whereas under some conditions with different types of aggression, pushing a person ‘too far’ with their initial aggressive behaviour, might lead to less subsequent aggression.

The present research supports the possibility that pushing a person into committing a small initial act of aggression could pave the way for escalating aggression, as it was shown in Milgram’s experiments (Milgram, 1963). However, perhaps escalation is more likely to occur under certain types of aggression, where there is no turning back from the harm inflicted, as it was the case in delivering electric shocks or killing bugs. Perhaps since verbal aggression is regarded as more of a common occurrence when interacting with other people, it is not seen as inflicting as much harm and therefore does not lead to dissonance as another type of aggression might.

In addition, it would seem that dissonance and guilt could help explain some of the result obtained. That is, it was suggested that people with high similarity to the learner, who engaged in mild initial aggression, justified their actions by engaging in more severe subsequent insults, in order to diminish the guilt experienced. On the other hand, high

similar people who were asked to severely insult another person, insulted less severely subsequently as a way to avoid feeling guilty. In other words, dealing with guilt is important in understanding and combating some forms of aggression. If people were taught alternative ways of dealing with guilt that do not involve justifying aggressive behaviour, then perhaps they would be able to see the aggression for what it is and put a stop to it before it escalates. That is, one of the reasons people experience guilt from hurting another person could be due to them committing something that goes against their values, ideals and beliefs. As a result, people might start evaluating themselves more negatively and this would give rise to self-criticism and a lowered self-esteem. Therefore, when trying to reduce their guilt, what people are trying to regain in fact is a high self-esteem by creating a positive self-image. This study predicted that one way of reducing and coping with this guilt is by regarding the committed behaviour as acceptable and this way there would be no threat to their self-worth.

Therefore, it might be useful to look into ways of working with first time offenders to look at past actions and view their behaviour as a result not of a 'bad' self, but rather as a 'bad' choice. Bad choices are easier to fix than 'bad' selves are, and in making the distinction between one's actions and one's self-worth/personality, then perhaps the need for justification in order to regain a positive image will be reduced, and along with any escalation or repeat offending. Future research might be able to test this hypothesis by manipulating participant's self-esteem levels right before the task that induces escalation of aggression and investigate whether a self-esteem boost leads to less escalation as suggested.

Overall, by increasing understanding of the factors that contribute to the escalation of aggression, clinicians, counsellors and others alike will be able to treat offenders more effectively and subsequently reduce recidivism.

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Appendices

Appendix A

Information Sheet: Learning Performance University of Canterbury, Department of Psychology

You are invited to participate as a subject in the above-titled research project. The aim of this project is to investigate different types of feedback on learning performance in people. More specifically, I am investigating the differing effects of rewards and criticisms on learning performance.

If you agree to participate, you may be asked to: (1) watch a short video recording of the learner, (2) make a 2-minute video recording about yourself, (3) offer either insults or rewards as feedback to a learner, and (4) fill out various personality-related questionnaires. The study will take between 30 minutes and 1 hour. For your participation you will receive a \$7 voucher. You are free to withdraw from the study at any time without causing bad feelings and will still receive the voucher for your participation.

The results of this study may be published, but you may be assured of the complete confidentiality of the data gathered in this investigation: the identity of participants will not be made public. To ensure confidentiality, your name will be separated from your responses in the study. Further, the data will be accessed and viewed only by the experimenter and Dr. Andy Martens. If you have any questions or concerns about this study, please contact myself, Gabriela Motoi at 021-033-5530 or at gmo24@student.canterbury.ac.nz.

This project has been reviewed and approved by the University of Canterbury Human Ethics Committee.

Appendix B

Consent Form: Learning performance

I have read and understood the description of the above-titled project. I agree to participate as a subject in the project and I consent to publication of the results of the project with the understanding that confidentiality will be preserved.

I understand that I may at any time withdraw from the project, including withdrawal of any information I have provided.

Name (please print):

Signature:

Date:

Appendix C

Insult list

1. I don't like that.
2. That's wrong.
3. That's a dumb thing to say.
4. That's stupid.
5. You're just clueless.
6. Idiot.
7. You're a jerk.
8. How idiotic can you be?
9. I never met anyone as dumb as you.
10. Stupid bitch.

Appendix D

PSQ**Instructions:**

Please answer these questions based on the person you just watched in the short video. The scale is twenty-item Likert scales with items answered on a five-point scale - from strongly disagree to strongly agree.

SD – strongly disagree; D – disagree; U – undecided; A – agree; SA – strongly agree, where SD = 1; D = 2; U = 3; A = 4; SA = 5.

	<i>SD</i>	<i>D</i>	<i>U</i>	<i>A</i>	<i>SA</i>
1. This person has different academic interests than I do	1	2	3	4	5
2. Overall, I feel similar to this person.	1	2	3	4	5
3. I would say this person and I have similar physical features.	1	2	3	4	5
4. I look completely different from this person.	1	2	3	4	5
5. This person is similar to my current set of friends.	1	2	3	4	5
6. This person seems to engage in the same activities as I do.	1	2	3	4	5
7. I probably would not be friends with this person.	1	2	3	4	5
8. My career goals are quite similar to this person's career goals.	1	2	3	4	5
9. I am not at the same stage in my academic life as this person is.	1	2	3	4	5
10. This person's study interests are similar to my study interests.	1	2	3	4	5
11. I would have liked to study what this person is currently studying.	1	2	3	4	5