

WHAT, YOU CARE?  
THE EFFECTIVE USE OF AVERSIVE EVOKING CONTENT IN VIRAL VIDEOS  
FOR ADVOCACY GROUP ADVERTISING

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The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

**WHAT, YOU CARE?  
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VIDEOS  
FOR ADVOCACY GROUP ADVERTISING**

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WHAT, YOU CARE? THE EFFECTIVE USE OF AVERSIVE EVOKING CONTENT IN  
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ABSTRACT

The current research examined the use of aversive evoking content in advocacy viral videos and how the use of such content affected a person's intention to forward the message. In a 3 (Intensity) x 3 (Video) x 3 (Order) repeated measures design, participants watched nine viral video ads that varied in levels of aversive evoking content. The results of this research suggest that varying levels of aversive evoking content have significant effects on cognitive resources allocated to encoding, arousal, intention to forward, and persuasion. Implications for the construction of viral videos are discussed.

# 1

## Introduction

*The earth is not dying, it is being killed. And those that are killing it have names and addresses. –Utah Phillips*

There are varying facets through which citizens strive to improve the conditions in which they live. In some cases, these are economic, in others financial, and still in others it is through the education of those that surround them, that their environment improves. It is reasonable to believe that “the pervasive character of government makes it inevitable that most of us will at some point want to influence the direction of a government decision” (Young & Everitt, 2004a). This type of influence can manifest in the form of a grassroots organization, a community group, or an advocacy group. If the issue of concern is one that the individual feels strongly about these gatherings will occur because “a citizen can...attempt to get media attention...but lone voices are often lost” (Young & Everitt, 2004a). Indirect lobbying for these sorts of various organizations is of growing importance (Young & Everitt, 2004b), as it “is already the case that any media outlet, however minor and unobtrusive can start a cascade of coverage around the world” (Von Lindenfels, 2004). These media outlets, once limited to guerrilla radio jams and night-time



television infomercials, have evolved into something different—online media and viral content. The use of viral videos by advocacy groups as a means of communicating their message is a more recent phenomena and serves as the basis for this research.

Working with this in mind, it was the practical goal of this research to understand the process through which advocacy groups can more effectively communicate to their audience using viral videos, with the end result being a change in attitude or behavioural intent. Specifically the research served to examine the characteristics of these viral videos created by advocacy groups, and the ways in which they can be more efficiently implemented. The reason why video was chosen as the studied medium versus guerrilla print ads or radio is based on research done by Derzon & Lipsey (2002) which found that campaigns utilizing video were the most effective when it came to affecting change attitude and knowledge. (Snyder, 2007). Here, we define the effectiveness of the message by a change in attitude or behavioural intent in favour of the message presented by the group. The primary message feature under investigation in the proposed study is aversive (negative) content. The kind of content presented contained violence, sexuality, gore and other forms of graphic visual images which are utilized in a viral video as an emotional hook by depicting the consequences of ignoring, or remaining indifferent to, the advocacy group's plight. The variation of the aversive content concerns the variation in which these consequences are portrayed.

Using aversive content in advertising is one of many approaches advocacy organizations have gravitated towards in terms of attempting to elicit behavioural responses from target audiences. Advocacy organizations are not the only groups to use aversive content to achieve their ends; the health awareness community as well as politicians have used aversive content in PSAs for decades. Leshner, Bolls, & Wise (2011) examined varying levels of aversive content in televised anti-tobacco ads. Their results indicated that higher levels of aversive content in these particular health messages lead to participants entering a psychological defensive state where less attention was given to the video's message. Conversely, in 1981 Sabato (1981) found that a third of all political PSAs contained negative content, and furthermore that these appeals appeared to be successful (Sabato, 1981; Bradley, Angelini, Lee, 2007). It has been suggested by research that, "negative ads—as with most other negative things in the world—draw our attention because of the underlying structure of emotion and motivation" (Bradley, Angelini, Lee, 2007, p.116). Even though negative advertising is not synonymous with negative graphic content, it is interesting to note the effect of negativity in advertising. It is important to understand how people process negative content in evaluating a message, as that person's perception of the message affects their overall attitude, opinion, and behaviour towards the sponsor and the subject matter. It has been demonstrated, using political advertisements, that the use of aversive evoking content *can* be used strategically implemented as to decrease ratings of the PSA's target without kindling negative attitudes towards the source of the advertisement (Pinkleton, 1997, 1998).

Using this as a reference, it can be suggested that the same may be expected of advocacy videos, in that the presented content may not affect the organization's perceived identity. For this reason is it imperative to investigate the process by which a person interprets or decodes the message being presented and how the content of the material presented affects that process. It is important to keep in mind that "advertisers need to make sure that the target audience understands the message as it was intended" (Du Plessis, 2008, p. 110) otherwise the message is a vain attempt at divulgence.

Understanding how viral messages created by advocacy groups can be more effective is of vital importance because it allows those groups to connect with their audience in a more strategic and coherent manner. Many advocacy groups, such as Greenpeace, have called attention to corporate mishaps that would have resulted in tragic losses for the community or environment (see 'Onslaught(er)' discussion in next section). By shining light into this area, advocacy groups can be better equipped with the necessary knowledge and understanding to appeal to a wider audience, and enact valid social change.

Psychophysiological measures were employed in order to provide insight into the cognitive and emotional processes engaged when individuals were exposed to advocacy videos varying in the intensity of aversive content. This was useful for two main reasons. The first being that the use of psychophysiology allows for the comparison of real time data as it occurs; this means that as participants are watching the viral messages, data reflecting the participant's emotions and cognitive

processes may be recorded as they occur. The second reason this methodology is useful is due to its being rooted in academic research that ties together physiological responses to psychological reactions. In essence, specific physiological responses of the participants such as heart rate or skin conductance can be validly and reliably linked to specific cognitive and emotional processes. Therefore, this method allowed the researchers to collect true usable data concerning the responses to viral messages.

The procedure implemented entailed participants viewing nine viral videos containing varying levels of aversive evoking content. These videos were of the public domain, and had been previously used by the respective advocacy groups as attempted viral material. Both psychophysiological and self-report data was collected from a total of 57 participants. This data reflected the participant's responses not only towards the aversive content in the videos, but also their opinions of the advocacy groups, their behavioural intentions, and their perceived effectiveness and persuasion of the presented material.

## 2

### Literature Review

#### *Introduction*

In order to understand the disposition of advocacy groups and organizations it is vital to be conscious of the history, endeavours, and methods employed by these organizations. The modus operandi of advertising for non-profit organizations differs substantially from customary methods. Advocacy groups do not have access to the same types of resources that mainstream corporations do (Irzik, 2011). Efforts to convince a person that their desire for recycling bins should be equal to that of their desire for a Ferrari are not cheap or simple. Therefore, before discussion begins concerning past viral campaigns, theoretical frameworks of emotion, or the effectiveness of psychophysiology; insight will be provided into the beginnings of the current advocacy environment and its undertakings.

#### *How it Began*

In the early 2000s, a strong anti-corporate activism emerged. This movement is still in existence today. It began as citizens and organizations attempting to make bare corporation practices and “expose damage being done behind the slick veneer” (Klein, 2000, p. 325). It is important to note, “NGOs do not question that the end goal

of companies is to make profits; but mainly challenge just *how* such profits are made” (Bunn, 2004, p.1269). It began with sweatshop stories involving little pay and underage workers. Consumers could not understand why powerful corporations did not demand ethical labour standards from their respective suppliers. “The problem arises when corporate activities impinge on the realization of human rights, exploit workers, harm the environment, marginalize vulnerable populations or produce other negative social consequences” (Bunn, 2004, p.1269). For example, in the late 1990s companies like Guess and Nike were under public scrutiny:

Guess Jeans, which [sic] had built its image with sultry black-and-white photographs of super model Claudia Schiffer, was in open warfare with the US Department of Labour over a failure on the part of its California-based contractors to pay the minimum wage (Klein, 2000, p. 328).

Part of the feelings of anti-corporatism was based on political concerns as well. Foreign investors in countries such as Burma were accused of “propping up the junta that had disregarded [Aung San Suu Kyi’s] 1990 election victory... [and] directly or indirectly profiting from the state-run slave-labor camps” (Klein, 2000, p. 331). Economic reasons also feed concerns of growing corporations. As of 2010 the world’s top 100 economies consisted of 13 companies and 34 cities (Hoornweg, Bhada, Freire, Trejos Gómez, & Dave, 2010).

The impact of multi-national corporations has become so great in fact, that “a wide range of NGOs [are] focusing on the impact...in areas such as human rights, working conditions, environmental protection, and other social issues” (Bunn, 2004).

### *Defining Advocacy Groups*

In order to appropriately approach advocacy groups, we must define what an advocacy group is. An advocacy group is a group of people acting for the best interests of its members or community or attempting to uphold interests, which may not be of direct knowledge to those in their immediate environment. It is important to mention that advocacy groups do not seek to rule, but merely to influence governmental policies and regulations with collective benefits shared by all. Lastly, it is important to distinguish advocacy groups from social movements, as social movements not only attempt to influence government but also attempt to influence the way people live (Young & Everitt, 2004a).

Enacting cultural or social change with an advocacy group may pose a challenge if its members are not mindful of potential obstacles, which is an obstacle to the organization itself if it is unable to use effective communication methods, especially when those methods contain content viewers may find disturbing, graphic, or aversive. For example, many non-smoking campaigns have been not as successful as groups hoped due to the fact that social class was not taken into account. Here, smoking and its health effects were more of an upper-class concern than a working class one (Irzik, 2011). Furthermore alternative media has the

potential to be a burden to a given advocacy group, “the trouble with alternative media is that they have to compete with mainstream media, which is vastly superior in funding, technical expertise, and ubiquity” (Irzik, 2011, p. 143). This means:

The ability of NGOs to impact upon the mainstream news agenda is determined by the resources available to them. These resources include financial, but they also include the cultural capital associated with class, professional status and expertise as well as the legitimacy and credibility gained through previous activities within the political and media fields (Fenton, 2007, p. 145).

With this in mind, it becomes apparent that investigation into the effective use of viral videos and campaigns by advocacy groups is necessary for their survival in a milieu where boundaries between traditional and non-traditional media collide.

Advocacy groups are not limited to one form of communication. Tactics can range from “formal to informal, traditional to non-traditional” (Young & Everitt, 2004a). Formal modes of communication may be meetings with members of government or attending government-sponsored events in order to promote position. Informal types of communication include but are not limited to rallies, protests, sit-ins, and even “engaging in civil-disobedience” (Young & Everitt, 2004a). However, advocacy groups and NGOs alike, must be aware that if they “want coverage, they must be prepared to compete for it” (Fenton, 2007, p.145). This is where the use of aversive content becomes a factor. Elements such as fear, disgust, shame, and graphic imagery as aversive content have been repeatedly used in the



past as a catalyst for action, behavioural intent, and attitude change (Agrawal & Duhachek, 2010; Dobeles, Lindgreen, Beverland, Vanhamme, & Van Wijk, 2007; Leshner, Bolls, & Wise, 2011; Keith, 2011). The means by which these elements evolve and transform the cognitive and emotional state of the viewer provides illumination onto how media messages can also be evolved and transformed in such a way as to direct the cognitive and emotional state of said viewer.

A main advantage of initiating and participating in advocacy groups or non-profits is that it creates an “interactive [form] of communication that [acts] as a countervailing force to the one-way flows inherent to commercial media” (Downing, Ford, Gil, & Stein, 2001). If this concept can be communicated towards an advocacy group’s target audience, the comprehension of opposing arguments to prevailing opinions may occur, thus enabling the possibility of social change.

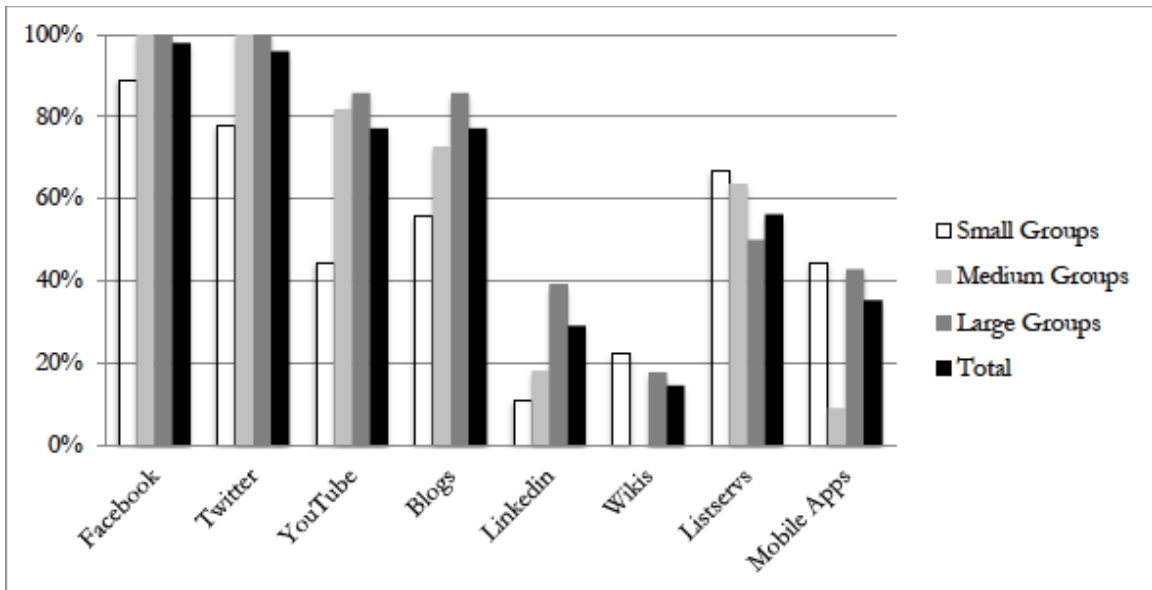
### *The Integration of the Internet*

Even though the Internet has only been used as an alternative form of media for about 20 years, thousands of media projects have used it as a tool to communicate their messages of change (Atton, 2007). These projects range from radio initiatives for political activists, the development of e-zines to expand cultural awareness, and even to promote global initiatives in rural and impoverished areas—such as the native Zapatista’s struggle for ownership of ancestral land in Mexico (Atton, 2007; Downing, Ford, Gil, & Stein, 2001). The use of the Internet as a medium of social advocacy is sometimes referred to ‘Online Advocacy 2.0’ as “we are witnessing a quantum leap in the ability of strategic communicators to harness

the power of the Internet” (Battle, 2007, p.10). To put it bluntly, the Internet allows an idea to “[spread] on its own, like a self-replicating virus” (Peretti, 2001).

Contemporarily, the use of video as a means of reaching potential audiences is in debate when examining its use by advocacy groups. According to Obar, Zube, & Lampe (2012) even though advocacy groups have the ability to carefully produce informative and detailed videos and that YouTube is the third highest used method to communicate with audiences after Facebook and Twitter, it was “ranked the lowest by advocacy organizations in terms of its ability to complete advocacy-related tasks” (p. 19). The researchers proposed viable reasons for this, including the possibility that YouTube is not seen as a strong social network when compared to Facebook and Twitter, or that advocacy group members do not understand its social function and how to appropriately implement it’s use.

Figure 1- Percentage of Advocacy Groups Using Social Media to Communicate with Citizens (Obar, Zube, & Lampe, 2012, p. 12)



Even in the past however, without the use of viral videos, the use of the Internet has garnered results in favour of advocacy or activist type groups. A major occurrence in the role of the Internet advocacy was associated with the defeat of the Multilateral Agreement on Investment (MIA) “a major international agreement that would have protected the rights on international capital” (Korbin, 1998; Warby, 1999; Young & Everitt, 2004b). The MIA was a capital investment in British Columbia that would have seriously jeopardised environmental efforts, with poor forestry practices and less-than-stellar protection of old-growth forests (Cashmore, Hoberg, Howlett, Rayner & Wilson, 2001; Stanbury, 2000; Young & Everitt, 2004b). A copy of the negotiating draft between the MIA and the government was leaked onto the Internet in the fall of 1997, which sparked online outrage and action (Warby, 1999).

In another example, activists in early 2005 circulated an email over the internet encouraging consumers to boycott the entire economy of the USA on 20 January 2005, the day of the presidential inauguration, in protest of the Iraq war through ‘Not One Damn Dime Day’” (AlterNet, 2005; Carducci, 2006).

The results of this effort were less tangible than the results of the citizens of British Columbia versus the MIA.

### *Emergence of Viral Information and Examples*

A viral media message is “the Internet age equivalent to word of mouth” (Rigby, 2004, p. 66; Salzman, 2003; Schmelzer, 2007). A viral message works because e-mails that are forwarded carry the personal endorsement or recommendation of a friend (Peretti, 2001; Salzman, 2003), unlike spam or unsolicited messages which people delete without reading. This means, “the audience is preselected for its receptivity to the message” (Peretti, 2001). “More than 85% of people will open a link or attachment sent by a friend” (Rigby, 2004, p. 66). In viral e-mails and marketing, credibility of message is a deciding factor in attention (Salzman, 2003). In fact, when examining viral health based messages “source credibility is the highest-ranked appeal in terms of credibility among [viewers]” (English, Sweetser, & Ancu, 2011, p. 744). Furthermore, when examining health communication campaigns, the utilization of television, radio and video was found to be superior to that of print alone. This result is not, in and of itself, surprising. What is interesting however is that video appears to be the “best media

channel for attitude and knowledge change (Derzon & Lipsey, 2002; Snyder 2007, p. 338). "Viral messages can exist as e-petitions, photos, and even celebrity endorsements; what is more important is the common experience conveyed by the message however than the form that it takes (Hachman, 2011). The best method in which to implement these messages then is to keep it short and offer some sort of action (Dobele, Lindgreen, Beverland, Vanhamme, & Van Wijk, 2007; Salzman, 2003). This latter point is imperative as most advocacy viral messages do offer a call to action, and in a sense have learned from mainstream advertising. Typically this is seen at the end of a video message and usually contains website information, or instructions to the viewer on how they can be involved to further the presented cause or idea. The similarities between commercial advertising and advocacy group advertising are few, though viral messages are used by advocacy groups and advertisers alike. Usually though in the case of advertisers it is regarded as little more than buzz marketing (Atkinson, 2006). This creates concerns of ethical lines being blurred. For example "a video produced by marketer TaxBrain, aired as real news on local news broadcasts in a stunning 125 markets across the country" (Atkinson, 2006). This similarity presents a difficulty to advocacy groups attempting to create their own promotional identity outside the realm and confusion created by said buzz marketing.

Occasionally, the use of viral marketing by a mainstream corporation, comes in use towards the advocacy group opposed to its message. This aids the advocacy group in breaking away from the idea of buzz marketing, and coincidentally

promotes its own cause. For example, this type of mirrored viral campaign recently occurred between Unilever and Greenpeace. Unilever produced an advertisement for Dove, "Onslaught" as a way to illustrate the large amounts of commercial messages directed at young girls. Greenpeace responded by producing "Onslaught(er)" which criticized Dove for clearing out rainforests in Indonesia in order to harvest palm oil which makes up their beauty products (Lee, 2009). These two viral videos used seemingly identical music, and video editing effects. "Instead of Dove's images of unobtainable physical perfection, Greenpeace's girl is battered by scenes of environmental destruction, a relentless rush of razored [sic] rainforests, dead monkeys and industrial carnage" (Beale, 2008b). "Greenpeace's parody got 705,000 views on YouTube to Dove's 405,000 and was credited with getting Unilever to open talks with Greenpeace about how to develop a policy for sustainable palm oil" (Lee, 2009). In fact, Unilever has pledged to have all of its palm oil certified by 2015 (Beale, 2008a, p. 23).

This idea of creating "anti-ads" is not new. The Canadian magazine *Adbusters* frequently uses existing well-known advertisement design (i.e. the Nike swoosh, or the Absolut bottle) in order to "subvert the intended meaning of the ads by creating 'anti-ads'" (Wipperfurth, 2005, p. 158). This method of communicating to a target audience is creative in the sense that it uses elements of aversive evoking content typically used by advocacy groups, but ties it together with an easily identifiable and understood message.

A prime example of viral marketing against an organization using the

aforementioned theme of an “anti-ad” occurred when a consumer ordered custom-made sneakers from Nike. The controversial part was that he wanted them to say “sweatshop” across the side, illustrating his displeasure with Nike’s labour methods. Nike refused to make the shoes, and furthermore did not comment on the labour conditions in their factories:

I forwarded the whole e-mail correspondence to a dozen friends, and since that time it has raced around the Internet, reaching millions of people, even though I did not participate at all in its further proliferation. The e-mail began to spread widely thanks to a collection of strangers, scattered around the world, who took up my battle with Nike. Nike’s adversary was an amorphous group of disgruntled consumers connected by a decentralized network of e-mail addresses. Although the press has presented my battle with Nike as a David versus Goliath parable, the real story is the battle between a company like Nike, with access to the mass media, and a network of citizens on the Internet who have only micromedia at their disposal [sic] (Peretti, 2001).

Even though the idea of “anti-ads” is popular amongst cultural and social activists, there are those who use viral messaging independent of previously created advertisements. This was seen fairly recently by a single individual, though several advocacy groups carry her message. *The Story of Stuff* is an online documentary created by Annie Leonard, which became surprisingly popular online “picking up the kind of viral energy usually reserved for the latest Kim Kardashian gaffe” (Mark,

2010). Her film analyses the material supply chain and how many people living in first world countries are unaware of the amount of waste they generate. As of its Dec. 2007 posting, it has received over 3 million views, and over 10,000 DVDs have been distributed carrying the message that overconsumption is wrong (Mark, 2010).

Even though working outside of traditional communication methods can be effective, it is not uncommon for advocacy groups to attempt to work within their respective systems using more commonplace or acceptable means. Commercial Alert is an example of this type of organization, vying for influence using more conventional methods of dissidence. The organization writes letters to politicians, news organizations, corporations, and individuals in the hope of restricting advertising “from commandeering every last nook and cranny of American culture” (Bzdek, 2003). Because of their work, alcohol ads on NBC are no longer allowed, and a plan by AOL Time Warner to place advertisements on ‘CNN Student News’ is dead (Bzdek, 2003). This demonstrates that even though social media is becoming a more viable practice for non-profits, effective solutions can be found using more traditional means.

#### *Examining Emotion in Viral Campaigns*

Regardless of the strategy employed by advocacy groups concerning viral messages, there still exist key elements that dictate the message’s survival. Successful viral marketing campaigns trigger emotional response in viewers through the use of emotional hooks or elicitations (Berger, 2011; Vernallis, 2011). Certain emotions will cause more of the desired outcome, which is either



consumption or passing the message on (Dobele, Lindgreen, Beverland, Vanhamme, & Van Wijk, 2007). Therefore, when implementing viral messages, the elicitation of certain emotions must be carefully monitored. For example, sadness is best implemented when an immediate response to a disaster is desired; anger is “best suited to single issue crusades that seek an immediate reaction to injustice”; and fear “must be used carefully and sparingly [as] fear is a short term response to a perceived threat” (Dobele, Lindgreen, Beverland, Vanhamme, & Van Wijk, 2007). Advocacy groups and organizations must be careful about using disgust as a way of invoking actions as gender is a moderating factor. These messages, as well as fear-based appeals, are forwarded more heavily by men as opposed to women (Dobele, Lindgreen, Beverland, Vanhamme, & Van Wijk, 2007).

Another key element of ensuring that an advocacy group’s message is sustained is examining the behavioural intent tied to that particular message. As an example, a primary way groups may ensure the forwarding of viral messages is through the use of empathy and emotional arousal (Berger, 2011; Hachman 2011). Emotional arousal drives sharing, “users who were more emotionally aroused or physically aroused shared content more than those who weren’t” (Berger, 2011; Hachman 2011). In fact, the more arousal induced by the content, the more likely it is to spread in the Internet and capture public attention (Berger, 2011; Berger & Milkman, 2011).

Even though arousing content is imperative to ensure to dispersion of a viral message, the content itself must not be damaging to the viewer. “When you market

sad stories of pets it needs to be inspiring, it cannot be soul killing, but it so often is and that is a terrible danger” (Keith, 2011). Christie Keith, is a columnist and communications consultant for non-profit organizations affiliated with the well being of pets. Keith argues that the use of guilt, shame, and fear in viral messages shuts people down and keeps them from pushing the message farther. "People who respond to these tragic stories [of pets] already have as many pets as we can adopt, if we want to cross this last frontier...to guarantee adoption to every pet in America... we have to widen the pool of our adopters who do not respond to those messages that have been successful to us in the past." An interesting philosophical point made by Keith is that because of the viral nature of advertisements and information, a message's content must be examined carefully in order to prevent a "poisoning of the pool [of potential future adopters]" as past knowledge affects current and future decision making.

Returning to the concept of influencing behavioural intent via a group's message, visual empathy is a strong indicator of behavioural intent when it comes to donating to charitable causes. Small, Loewenstein, and Slovic (2007) found that when presented with an image of an emaciated African child, viewers were more likely to donate money versus viewers that only saw statistics of starving children in Africa. In fact, the average donation was 50% lower between groups (Small, Loewenstein, & Slovic, 2007; Lehrer, 2009). Even though according to Lehrer (2009) the reason for this anomaly is due to a person's mind requiring the activation of 'moral emotions', it is important to take into consideration that at a certain point a

person can only receive so much aversive content before defensive cascading is triggered (Agrawal & Duhachek, 2010; Block & Williams, 2002; Darke & Ritchie, 2007).

This section emphasized the relationship between emotions and viral marketing, and how elements of viral messages have an impact on emotions that potentially effect behavioural intentions. For this reason, the theoretical framework outlining cognitive and emotional processing of media must be presented in an effort to further analyse the physical and psychological outcomes of viral media and the use of aversive evoking content in said media.

#### *The LCAMP and Emotion*

The limited capacity model of mediated message processing is a model that explains how the human brain processes media messages. There are two basic assumptions to this model, the first is that a person is a motivated information processor and the second is that a person's ability to process said information is limited in some capacity (Lang, 2000). These two concepts are not difficult to explicate. Persons are constantly bombarded with information either via a media message or from their surroundings, and since humans are fallible organic beings, there is only so much a person can process at any given time; in other words people have a "fixed pool of mental resources available to them" (Lang, 2000, p. 47).

People have two main motivational systems that help them assess and sub-process the stimuli in their environment. These motivational systems are the appetitive and

aversive systems; the approach or flee systems respectively (Bradley, 1994; Cacioppo & Gardner, 1999; Lang, 2006; Lang, 2010; Lang, Bradley, & Cuthbert, 1997).

When there is an increase in negative stimuli in a given media environment, the result will be increased activation of the aversive system; the reverse goes for the appetitive system with it activating under the presence of more pleasant stimuli (Lang, 2006). The goals of these two systems differ, during aversive activation the goal is protection, “at low levels of aversive activation, potentially negative stimuli need to be identified; therefore, at low levels of activation, resources are also automatically allocated to encoding” (Lang, 2006, p. S62). The goal of appetitive action is the inlet of information. Therefore, more information about the context of the stimulus and the stimulus itself is necessary. It follows naturally that the more negative a stimulus is the more the aversive system will activate and that the more positive a stimulus is, the more the appetitive system will activate (Lang, 2006; Lang, 2010).

Under the model of information processing, is a group of simultaneously occurring processes that people perform “on stimuli and on the mental representation of stimuli that they construct.” These processes can be automatic (that is “without conscious volition on the part of the message recipient”) or they can be controlled (people intentionally perform the sub processes). The sub process associated with the model are encoding, storage, and retrieval (Lang, 2000, p. 47).

These three processes are simultaneously and continuously active during media use. Aspects of the individual's goals, the message content, and the message structure are continuously resulting in automatic and controlled allocation and reallocation of resources to encoding, storage, and retrieval (Lang, 2006, p. S61).

Encoding involves a person's mental projection of their immediate surroundings and stimuli. The person in question will take in specific fragments of information that will be translated into mental images. The processes of deciding which information to form a mental image of can be either unintentional or intentional (Lang, 2000). "Elements of the environment or of a media message are encoded when limited cognitive resources are allocated to them" (Lang, 2006, p. S60). The information that the person does decide to represent is "placed" in a person's working memory. The information that a person 'decides' to encode falls usually into one of two categories, relevant interest to a person's goals or novelty, though the later is encoded automatically (Lang, 2006).

After the information has been encoded, it must be effectively stored somewhere. The LC4MP uses memory as a type of activation link, that is when one memory is activated it highlights and activates other corresponding memories. This is how the aforementioned message becomes stored. The encoded information is thought of in respect to relevant or connecting memories, effectively storing it in a person's memory. "The more associations are formed between new and old information, the more completely the new information is stored" (Lang, 2000, p. 50).

It is important to note that the context in which something is seen will affect its storage. For example, if television is simply being used as background noise while the watcher is on the Internet, they probably aren't storing as much information as they would be if it were a message they were likely to be tested on.

Once information has been stored, there needs to be a way to access that information via the associated memory linkages, this is where the process of retrieval comes into play. Retrieval is a way of activating relevant information so as to better understand the messages of stimuli we are currently being exposed to (Lang, 2000). Where the resources go may depend on the time demands of the message. Thus, if the user cannot control the speed of the message (no stopping, rewinding, or pausing), then time-sensitive sub-processes (like encoding and to some extent concurrent retrieval) will automatically receive more resources and storage will be shorted. When this occurs you end up with a message that was attended to (all resources allocated), encoded (very good recognition memory), but cannot be retrieved (poorly stored; Lang, 2000; Lang & Basil, 1998).

Keep in mind that all three of these sub-processes occur simultaneously in the mind, because of this only so much cognitive resource allocation can take place, that is a person can only devote so much brainpower to each sub-process since they are limited capacity beings:

When the message requirements and the user's goals result in more calls for resources than there are, cognitive overload is said to occur. This means that there are insufficient resources available to perform all three subprocesses

to the level required. When this happens, performance on one, two, or all three subprocesses will deteriorate [sic] (Lang, 2006, p. S61).

It is interesting to note, that the more arousing a message is, cognitive overload will occur at a slower level as a greater amount cognitive resources will allocate to storage (Lang, 2006).

In the previous section, the concept of defensive cascading was mentioned as a resulting factor if a person is subjected to an unusually high level of aversive content. When a person's aversive motivational system is bombarded with information containing exorbitant levels of negative content it activates a cascade of defensive responses. This includes withdrawing cognitive resources from encoding this previously mentioned information. This effect is known as defensive processing (Agrawal & Duhachek, 2010; Block & Williams, 2002; Darke & Ritchie, 2007; Lang, 2006; Leshner, Bolls & Wise, 2011)

For the purposes of this study therefore, when defensive cascading occurs at high levels, participants will go into cognitive overload, and will not remember as much about the video message as those in a lower intensity grouping. The phenomenon occurs when intensely negative stimulus activates the aversive motivation system of a person. For example, when examining the motivational responses of persons exposed to anti-tobacco ads "activation of the aversive motivational systems seems to have pushed viewers into the defensive cascade, which has consequences for cognitive resources allocated to encoding the anti-tobacco ads and message recognition (Leshner, Bolls, & Wise, 2011)." Furthermore,

according to Lang (2006), there is a point of aversive activation where the stimulus becomes too intense, which results in cognitive resources shifting away from encoding, and moving towards the establishment of cognitive defences.

These defences arise as an indirect consequence of the aversive content's effect on emotion. Indirect in the sense that cognitive resources and processing is an underlying factor in emotional response. These two concepts are linked in the "way media content may influence individuals" (Potter & Bolls, 2012, p. 63). There exists in academia a very blurry meaning of emotion, as it is a very complex topic. However, many scholars agree that the actual sensation of emotion originates in the amygdala, which "receives sensory input from the cortex, thalamus, and hippocampus" (Lang, 2010, p.231). In fact strong research exists stating that, "amygdala activation reflects moment-to-moment subjective emotional arousal and that this activation enhances memory in relation to the emotional intensity of an experience" (Canli, Zhao, Brewer, Gabrieli & Cahill, 2000; Hamann, 2000). This moment-to-moment activation is a fitting description as "emotions are usually conceptualized as occurring over a shorter period of time than moods or dispositions" (Potter & Bolls, 2012, p. 248).

Referring back to the aversive and appetitive motivational systems and the activation of those systems, it must be said that a stimulus is not simply "bad" or "good", but varying degrees of either. This variation is "determined originally by survival need and the imminence and probability of nociception or of appetitive reward" (Lang, 2010, p. 231). These variations either reflect a change in valence (the



positivity or negativity of a stimulated response) or a change in arousal (the degree to which the emotion is expressed or its intensity) (Bolls, 2010; Lang, 2010; Potter & Bolls, 2012). This concept of valence, has led to the development of the aforementioned motivational systems, in other words how positively or negatively a person reacts to a stimulus illustrates their internal aversive and appetitive systems. (Bolls, 2010; Cacioppo & Gardner, 1999). Since the purpose of the research covered by this paper was tested used psychophysiological methods, which are based in the dimensional approach to emotion, the research questioned posed henceforth will remain within this given framework.

As a direct result of utilizing this framework, the researcher was able to determine exactly how varying levels of aversive evoking content in viral videos effected changes in valence and arousal. Since the videos themselves presented differing degrees of negative content, those differences along with recorded fluctuations in biometric data provided the necessary insight into how individuals process advocacy videos made up of the aforementioned adverse components.

As discussed in the introduction of this paper, psychophysiological measures were implemented in order to provide insight into both cognitive and emotional responses to aversive evoking content in advocacy videos. This methodology grants unprecedented clarification and lucidity into discovering how the brain processes mediated messages.

### *Psychophysiological Measures*

Psychophysiology has the means to measure cognitive and emotional processing of media. These sorts of measurements are based on physical responses to an environmental stimulus that are based on real time. There exists a dynamic relationship between human cognition and emotion; therefore both must be taken and interpreted in context to avoid misrepresentations of data, or misconstrue of meaning. Cognitive and emotional processing measures, though dynamic, represent spate systems in the body; therefore separate measures must be taken to reveal accurate data. A true main advantage however of using psychophysiological measures is that both positive and negative reactions can be simultaneously measured; which is imperative as media stimuli changes from second to second (Potter & Bolls, 2012).

Cardiac activity is a method of measuring cognitive processing. The sympathetic and parasympathetic branches of the nervous system dually innervate the heart. An increase in the interest or attention paid to a form of media is the result of an increase in parasympathetic activation. Therefore, heart rate is used (in conjunction with galvanic skin conductance) to measure cognitive processing (Potter & Bolls, 2012). It has been shown that a deceleration in heart rate means that more cognitive resources are being allocated to encoding surrounding information; conversely acceleration of heart rate indicates that the environmental stimulus has been rejected and resources are being allocated to methods of adaptation (Lang, 1994).

Since heart rate is dually innervated, it cannot be used on its own to indicate cognitive processing. Skin conductance however, has shown to possess a reliable relationship between itself and the activation of only the sympathetic nervous system (Shields, MacDowell, Fairchild & Campbell, 1987). This means that it is a better indication of sympathetic activation, and thus of emotional arousal; that is how “excited” a person is. Skin conductance is a measure of the electrodermal activity caused by the activation of the sweat glands on the palm of the hands. A higher conductance reading means that there is more arousal (Bradley, Miccoli, Escrig, & Lang, 2008; Potter & Bolls, 2012).

An important indicator is also that of emotional valence. That is to what extent is a person pleased or displeased. This can be measured using facial EMG readings, which monitor the electrical signals that create action potentials that travel through the peripheral nervous system, activating groups known as muscle unit action potentials (MUAPs). The resulting movement caused by an MUAP is measured via an external electrode placement, and muscle movement is monitored in order to denote positive or negative feelings from a participant. “The most important theoretical and operational application of facial EMG is to index variance in the valence, the extent to which media exposure activates appetitive and aversive motivational systems” (Potter & Bolls, 2012, p.127).

There are three muscles that are used to determine emotional valence as it is described above; that is the corrugator supercilii, the orbicularis oculi, and the zygomaticus major. The activation of the corrugator and zygomaticus muscles will

auto activate when a stimulus is pleasant or unpleasant, inducing a frown or a grin (to put it bluntly). This has been shown repeatedly, especially in the case of the corrugator 'frown' muscle (Lang, 2010). It is important to note however, that only dual activation of the orbicularis oculi and zygomaticus major muscles indicate a genuine feeling of pleasantness. This phenomenon is known as the Duchenne smile (Ekman, 1989).

### *Research Questions, Hypotheses, and Measurements*

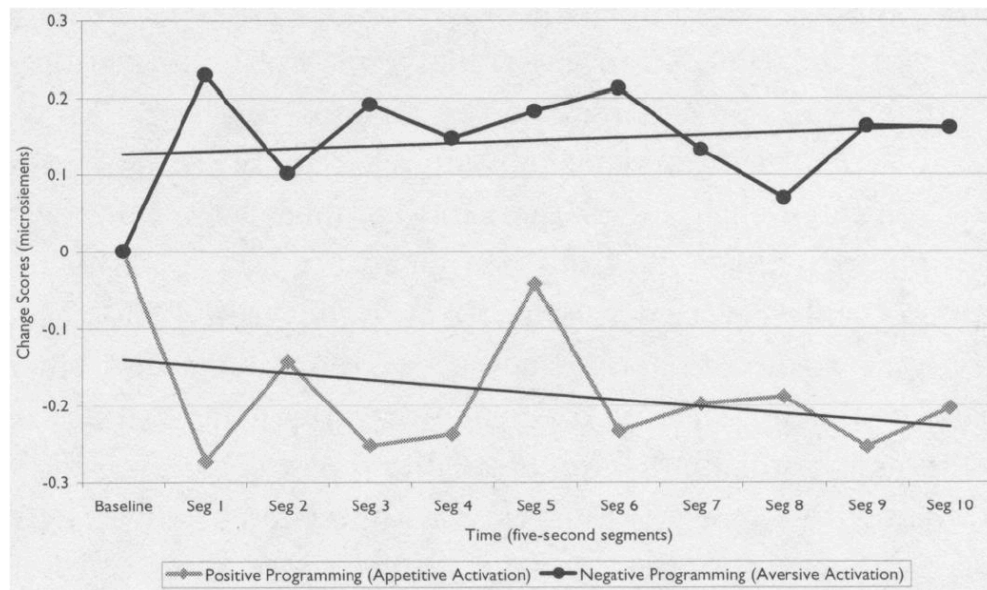
The research question examined during the course of this research was based on the objective of examining the relationship between aversive evoking content present in advocacy group viral messaging and how that content effects a person's potentially altering opinion of the provided message, as well as the person's behavioural intent based on that message. Aversive content in this context is based on the presence of intense graphic content. This is conceptualized as visual imagery presented via video containing scenes with varying degrees of violence, sexuality, and gore. These sorts of images may lead to anger, disgust, or displeasure. Here, behavioural intention was initially based upon a viewer's intention to forward the viral video; in other words the person's inclination to perpetuate the continual circulation of the message. The LC4MP framework along with prior research dedicated to cognitive and emotional processing provided the foundation for the research question and hypotheses of this study. With this in mind, the main research question was as follows:

1. How do individuals cognitively and emotionally process advocacy videos that vary in the level of aversive evoking content?
  - a. To what degree does the use of aversive evoking content affect intent to forward and level of persuasion associated with a viral media message?

### *Corrugator Activity and Emotional Valence*

In order to ascertain as to the immediate effect of aversive evoking content on the participant's emotional processing of media, changes in the corrugator supercilli facial muscle can be used as an accurate representation of emotional valence. This provides indices of the extent to which the aversive and appetitive motivational systems are activated (Potter, et al. 2006; Lang, et al., 2007; Leshner, Bolls, & Wise, 2011; Potter & Bolls, 2011). Furthermore the use of facial measurements has been shown to "be valuable for capturing the real-time reactions...as [audiences] respond to advertising" (Bolls, Lang, & Potter, 2001; Hazlett & Hazlett, 1999; Lee & Potter, 2005; Potter, et al., 2006, p. 74). According to the figure below, Potter et al. demonstrated that when participants have been aversively activated there is significantly greater corrugator activity when compared to participants who have been appetitively activated.

Figure 2- Effect of Programming Context on Corrugator Muscle Activity (Potter et al., 2006, p. 77)



Since corrugator facial activity has been successfully linked to showing significant differences in the reactions of participants to aversive content, this study predicted a similar outcome between varying levels of aversive content.

Hypothesis 1: There will be an aversive content x time interaction on negative emotional valence such that corrugator facial EMG activity across time will be greatest during exposure to high aversive evoking content followed by moderate aversive evoking content with low aversive evoking content videos eliciting the least amount of corrugator activity.

### *Skin Conductance and Arousal*

While corrugator activity acts as predictor of emotional valence, skin conductance acts as a means by which to measure the other side of emotional response, arousal. Skin conductance has been shown to demonstrate a reliable relationship between itself and the activation of only the sympathetic nervous

system (Potter & Bolls, 2011; Shields, MacDowell, Fairchild & Campbell, 1987). Earlier, the role of the amygdala in emotional arousal was mentioned. In addition to the information presented by Lang (2010) stating that emotion actually originates in the amygdala, other research has supported the idea that the amygdala, along with the hippocampus, as a brain area that underlies skin conductance (Dawson et al., 2007; Potter & Bolls, 2011). Since arousal is based on stimulation presented in a person's immediate environment, it can be stated that when presented with varying levels of aversive content, skin conductance will react in direct correlation with aversive content. That is to say that:

Hypothesis 2: There will be an aversive content x time interaction on arousal such that skin conductance activity across time will be greatest during exposure to high aversive evoking content followed by moderate aversive evoking content with low aversive evoking content videos eliciting the lowest level of skin conductance.

#### *Cardiac Deceleration and Cognitive Resources Allocated to Encoding*

According to Lang (2004) cardiac deceleration acts as an indicator of resources allocated to encoding and thus attention. A lower heart rate indicates an increase in the amount of resources allocated to encoding, while a higher heart rate indicates the reverse (Potter & Bolls, 2011). This has been demonstrated as a credible method of indicating how varying levels of aversive content effects cognitive resource allocation. Leshner, Bolls, & Thomas (2009) found that using high fear/disgust messages evoked cardiac acceleration indicating that resources were

being extracted from encoding and transferred to establishing cognitive defences. The results of this experiment have been replicated and further supported by Leshner, Bolls & Wise (2011). Accordingly in this study, high aversive videos will activate the aversive motivational system to the point of pushing individuals into a defensive cascade. It is important to remember that the videos used in this study do not reflect the same danger to the viewer that anti-tobacco advertisements would. This means that the defensive cascade will have a different response profile for advocacy group videos in comparison to health PSAs. When the cascade occurs, the person will withdraw resources from encoding, and instead allocate them towards cognitive defence.

Hypothesis 3: There will be an aversive content x time interaction on cognitive resources allocated to encoding such that cardiac deceleration across time will be greatest during moderate aversive evoking content followed by low aversive evoking content with high aversive content videos eliciting the least cardiac deceleration.

### *Behavioural Intention*

Previous studies examining the link between the use of viral videos and their corresponding emotional elicitation and behavioural responses indicate that visual stimulation creating moral emotions lead to desired behaviour (Small, Loewenstein, & Slovic, 2007; Lehrer, 2009). Furthermore, the content must not be damaging to the viewer (Keith, 2011) but still possess elements of emotional arousal in order to drive sharing of videos (Berger, 2011; Berger & Milkman, 2011; Hachman 2011).



These studies point to the effective use of arousing content in order to increase behavioural intentions of forwarding the video, or participating in the causes presented by advocacy groups. Since aversive evoking content is a type of emotional content, negative imagery should give birth to the aforementioned concept of moral emotions, with the level of aversive content indicating a noticeable change in behavioural intention. Visual imagery was found to prompt a significant higher behavioural response than simply presenting content containing statistics (Small, Loewenstein, & Slovic, 2007). Since many of the videos used as examples of lower aversive content contained more presented facts rather than strict visual imagery, the following hypothesis was made:

Hypothesis 4: There will be a main effect of aversive evoking content on intent to forward the video such that intent to forward will be higher for moderate aversive evoking content followed by low aversive evoking content with high aversive content videos eliciting the lowest level of behavioural intent.

### *Persuasion*

In an attempt to link and find a relationship between behavioural intention and persuasion, the effectiveness of the viral videos will be analysed. While being exposed to a persuasive message, the viewer may process a multitude of emotions including fear, guilt, shame, and being threatened. These sorts of emotions can trigger what has become known as defensive processing (Agrawal & Duhachek, 2010; Block & Williams, 2002; Darke & Ritchie, 2007). There are ways to limit

defensive processing in individuals though, which allows them to fully receive the mediated message. One of these methods is the elaboration of consequences. Block & Williams (2002) used this method when delivering health messages and found that when consequences were elaborated on, viewers were more likely to engage in a positive health behavioural change. From the aforementioned studies, a simple elaboration of consequences through raw statistics was found to be less effective than visual imagery. If visual imagery and an elaboration of consequences can be accumulated in a moderately aversive message, it is likely that persuasion will be more likely under these conditions versus conditions causing cognitive overload or a lack of enough visual imagery.

Hypothesis 5: There will be a main effect of aversive evoking content on persuasiveness such that persuasiveness will be higher for moderate aversive evoking content followed by low aversive evoking content with high aversive evoking content videos eliciting the lowest level of persuasiveness.

# 3

## Methodology

### *Summary*

The purpose of this study was to examine how aversive evoking content, i.e. graphic imagery, of viral videos effects the cognitive and emotional processing of the content of that video; and from that understand how they achieve their end purpose to either persuade or elicit action. Several variables were examined in order to determine this relationship. In a laboratory setting, researchers are able to deduce the cause of negative reactions caused by these viral messages. The predicted cause and effect relationship is reflected in the aforementioned hypotheses. In summary, it is thought that the presence of aversive video content will be effective at engaging cognitive and emotional processes supportive of message effectiveness up to a point of intensity where it may push individuals into a mode of defensive processing. The procedure and measures of research are published and established by the psychophysiological research presented in Potter & Bolls (2012).

### *Method*

The design of this experiment is a 3 (Intensity of Aversive Content) x 3 (Message) x 3 (Order) mixed model repeated measure design.

Intensity of aversive content in the viral videos has three levels: high, moderate, and low. Intensity here is conceptualized as the combined effect of graphic images, depiction of violence, or the use of high intensity guilt or shame as a means to an end in the videos. The end here being the intention of causing the viewer to go through an attitude shift in favour of the ideology being represented, or a behavioural change to assist that ideology in some tangible way (donations, volunteer work etc.). Different orders were used to control for possible recency and primacy effects as well as control for potential carryover effects. This was done by producing each order such that each video appears as one of the first third, middle third, or last third of that given sequence. Each third of an order included each level of aversive evoking content.

### *Stimulus Materials*

A total of 9 viral videos were used as stimulus messages during research. Each video was between 29 seconds and 1 minute 26 seconds in length. Since this was a repeated measures design, all messages were presented to each participant.

Media messages used were obtained from advocacy group YouTube channels. All of the viral videos used some sort of aversive evoking content ranging from guilt to disgust and even violence or graphic imagery. Aversive evoking content was conceptualized as messages, which include visual or textual depictions of violence, blood, or sexuality as aforementioned in the distinction between intensity levels.

A pre-test was done prior to data collection, that tested the extent to which videos selected for pretesting have content that is perceived as aversive. The complete list of questions and statistical results can be located in the appendix. The final nine videos for testing were drawn from a tested pool of videos. This pre-test ensured a successful manipulation of emotional intensity. Pre-test participants (N = 20) rated videos on a continuous response measure. Seven of the participants completed a continuous response measure of unpleasantness using a 9-point scale, seven completed a continuous response measure of pleasantness on a 9-point scale, while the last six completed a continuous response measure of arousal on a 9-point scale. All of the participants also completed a self-report measure concerning the content's pleasantness, unpleasantness, and arousal (also a 9-point scale). These questions directed the participants to rate the content of the videos, not how they felt. The responses from the pre-test decided which videos were used in the given levels of aversive evoking content. The videos chosen had averaged ratings of pleasantness, unpleasantness, or arousal that separated them from other videos. Videos that were selected had an overall higher average in unpleasantness and arousal and an overall lower average in pleasantness in combined continuous response and self-report measures. The complete list of averages and tables can be found in the appendix.

57 undergraduate students at a Midwestern university between the ages of 18–25 were used as participants in this study. The mean age was 20.30 years, with a standard deviation of 3.156. Both males and females were included as gender was

not a dependent variable in this experiment. 74% of participants were female, and 26% were male. Participants received extra credit/course credit for their time, and an alternative assignment was provided to those who did not wish to participate.

## **Dependent Variables**

### *Arousal and Valence*

Arousal was conceptualized as a dimension of emotion reflecting the intensity of motivational activation. It was operationalized by recording skin conductance. In preparation for this measure, participants were asked to wash their hands with water and a non-abrasive soap. Disposable electrode pads were used to measure skin conductance. These electrodes were pre-gelled 8mm Ag/AgCl shielded floating electrodes. The disposable electrodes were placed on the Thenar eminence and the Hypothenar eminence areas of the palm.

Negative emotional valence was conceptualized as a dimension of emotion reflecting unpleasantness. It was operationalized by recording corrugator muscle activity. In order to collect facial EMG data the researcher used six electrode leads. These leads were fitted with adhesive collars and filled with electrode gel. The collars were trimmed in order to prevent potentially obscuring the vision of the participant, as some electrodes were placed near the eye. Electrodes were prepared approximately 10–20 minutes before the participant arrived. Areas of the participants face were then cleaned with alcohol. These areas were on the left side of the participants face at the corrugator supercilii, the orbicularis oculi, and the zygomaticus major regions. The corrugator area is located directly above the

eyebrow, the orbicularis region is directly under the eye but above the cheekbone. The zygomaticus region is located on the cheek on the invisible line between the cheilion and the preauricular depression. The researcher made sure to confirm that the participant had no known allergic reaction to alcohol. After the areas of the face had been swabbed with the alcohol pad, the researcher used an abrasive pad on the cleaned areas of facial skin. The goal was that “the skin surface be abraded to a degree that removes dead skin cells, oil, dirt, and makeup to the extent necessary to obtain low electrical impedance between the skin and the recording surface of the electrodes” (Potter & Bolls, 2012). After all skin preparation was complete the facial electrodes were placed next. The first placement of the electrode for the corrugator supercilli region was directly above the eyebrow on the invisible vertical line based from the inner commissure of the eye fissure. The second electrode was placed 1cm “lateral to, and slightly superior to, the first on the border of the eyebrow” (Fridlund & Cacioppo, 1986; Potter & Bolls, 2012). Before the participant was fully “plugged in”, impedance measures of the facial EMG electrodes were checked using an impedance meter in order to ensure clearly recorded data.

Cognitive resources allocated to encoding was conceptualized as the mental effort invested in forming a short term working memory representation of a stimulus. It will be operationalized by recording heart rate. Areas of the skin on the participants where the ECG electrodes were placed were prepared. The researcher used an alcohol pad to wipe down the areas on the face and arms where the electrodes would be fitted. The first areas to be wiped down were the arms. The left

and right forearm areas (about two fingers width from the elbow crevice) as well as the left wrist. Next, the researcher adhered disposable electrodes to the participant. These disposable electrodes were pre-filled with electrolyte gel. The first was for ECG signal. These electrodes were an 8mm Ag/AgCl floating electrode. They were placed approximately two inches below the elbow bend on the right and left forearms of the participant. Before applying the electrodes, a small amount of electrolyte gel is was added in order to decrease impedance levels. A third electrode pad was also placed on the left wrist to act as the grounded electrode.

#### *Self report measures*

Intent to forward was conceptualized as the willingness to pass a video on to others via social media and or email. It was operationalized through a self-report measure administered after each video. This question was based on a nine-point scale and asked whether or not the participant would post the video on a social media site similar to Facebook with ratings ranging from Very Likely to Not Very Likely. Further aspects of behavioural intent were asked on a similar scale. These questions inquired as to how likely the person would be to volunteer for the presented organization, or donate money to said organization.

Persuasiveness was conceptualized as the perceived effectiveness of the video. It was operationalized using a self-report scale administered after each video. A nine-point scale (very effective to not very effective) indicating the perceived effectiveness of the advertisement was used to illustrate persuasiveness.



## Procedure

Prior to participants arriving at the PRIME (Psychological Research on Information and Media Effects) lab, the researcher prepared all necessary materials.

Participants were brought into the PRIME lab one at a time. Each student was given an individual time slot. Students were greeted by a lab member and then presented with an informed consent form, explaining to them the nature of the experiment and their participation in it (a copy of this form is found in the Appendix). After signing the consent form, participants were led into the testing area, where they were shown the lab set up.

The lab was set up with a television screen approximately 4 feet away from a lounge chair.

The first step was to make sure the participant was comfortable and at ease. 'Chair side manner' was imperative. Psychophysiological measurements can be anxiety inducing in and of themselves as they take place in an environment foreign to the participant.

After the researcher had attached all of the electrodes to the participant, the leads were then connected to the electrode cable.

These electrode cables were attached to a bioamplifier, which in turn was connected to an AD/DA board. The researcher set the sampling rate to twice the frequency of the phenomenon of interest (so for example heart rate was sampling at 160 times per second, since the average heart rate is between 60–100). The electrode cable was attached to a bioamplifier, which was set to amplify the signal

from the electrode leads with gain setting of 5,000K. The low pass filter in the amplifier was set to 8 Hz, and the high pass filter was set at open (in order to accept all frequencies above 8 Hz).

After the participant was successfully attached to the circuit the experiment commenced. The participant was shown a short video of nature scenes in order for the researcher to take initial baseline readings.

The first thing the participant went through was an initial self-report measure. Questions concerning the participants' use of the Internet, and their preferences and tendencies concerning the issues presented in advocacy videos (i.e. animal rights) were asked. Participants were also asked to provide basic demographic information, including their age and sex (questions included in appendix) at the end of the experiment.

The next thing the participant saw after exposure to the baseline video was the viral videos in a predetermined random order. Physiological readings were taken during this time. After viewing each video participants were presented with a series of questions assessing their reactions to each video.

### *Analysis*

The data collected were cleaned by eliminating outliers that could not possibly be valid. Eliminated data fell outside the normal range of the given measure.

Prior to analysis, all of the dependent variable data were examined for missing data and outliers. The psychophysiological data had 20 instances of outlying heart rate, 7 instance of missing or outlying skin conductance, and 10 instances of

outlying corrugator facial EMG.

The researcher considered readings of heart rate over 100 beats per minute to be outliers. These readings were cleaned from the raw extracted data taken from AqKnowledge, the psychophysiological data program. These rates were replaced with the results at  $t-1$ , as the best predictor of heart rate at time  $t$  is best predicted at heart rate at time  $t-1$ .

Corrugator facial EMG measures of over 90 muaps were eliminated as outliers.

After outliers and missing data was accounted for, the researcher determined the change scores of the physiological data, and averaged the scores over 29 data points. Due to the fact that the videos used in the experiment were of varying lengths (as determined by the pre-test) this data averaging was performed in order to reach an equal number of data points per video for statistical analysis totalling 29 in all.

Data from one self-report question was inaccurately reported for all participants (pre-test question number 5: See Appendix). The question had a missing option present in other similar questions. These data were not used, and analysis was conducted using only accurately reported self-report data. There was no missing data for any of the other self-report measures.

A repeated measures ANOVA was used to analyse all of the data. SPSS (Statistical Package for the Social Sciences) was used to calculate all of the data once it had been cleaned and outliers had been removed.

The psychophysiological measures were sampled at 500hz and the resulting data were averaged over one second intervals. The analysis was aversive content x video x time and was within subject factors, while order was entered as a between subject factor.

For self-report measures, aversive evoking content and message was within subject factors and order was a between subjects factor.

## 4

### Results

#### Introduction to Results

In order to more completely understand the effect of aversive evoking content on behavioural intent, testing was done in order to assess the impact of negative intensities on self-reported pleasantness, unpleasantness, and arousal. As these can be used as a manipulation check, these results will first be presented from the self-report measures.

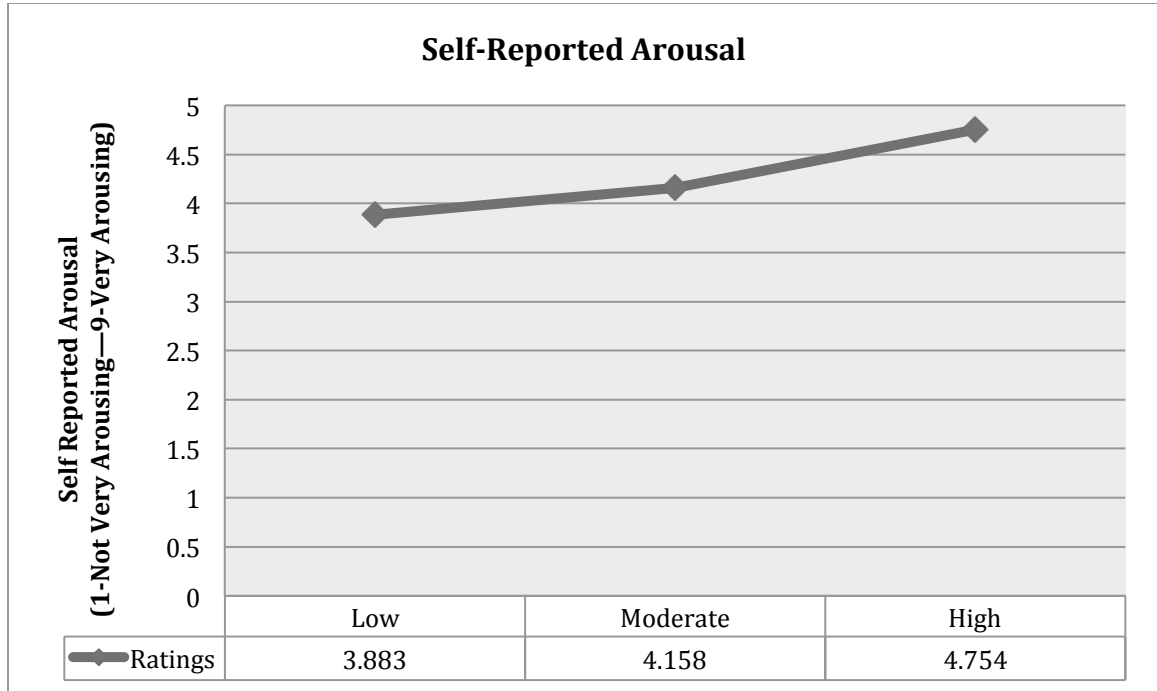
#### Arousal Results

Fifty-seven participants participated in the experiment. The data collected reflected a self reported arousal on a nine-point scale after the participant watched each message. A 3 (Intensity) x 3 (Video) repeated measures ANOVA was used to analyse emotional intensity's effect on arousal. A significant main effect was found ( $F(2,112) = 33.932, p < .001$ , partial eta squared = .059). Mean self-reported arousal for moderate intensity ( $M = 4.158$ ), was lower than high intensity ( $M = 4.754$ ), and the difference was significant ( $p < .001$ ). There was also a significant difference between low ( $M = 3.883$ ) and high intensity videos ( $p < .001$ ). Mean self reported ratings for arousal for low intensity was found to be lower than moderate; however the results were not significant ( $p = .198$ ).

Table 1-Self-Reported Arousal Means by Intensity Level

<i>Intensity</i>	<i>Arousal (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	3.883 (.250)	Low:Mod.	0.198
<b>Moderate</b>	4.158 (.263)	Mod.:High	0.000
<b>High</b>	4.754 (.295)	Low:High	0.000

Figure 3-Mean Self-Reported Arousal Ratings



### Pleasantness and Unpleasantness Results

Self reported measures of pleasantness and unpleasantness were analysed using a repeated measures 3 (Intensity) x 3 (Video) ANOVA. Participants reported the level of unpleasantness and pleasantness on nine-point scales. There was a significant main effect for level of intensity on self reported pleasantness ( $F(2,112)=46.838, p<.001, \text{partial eta squared}= .285$ ) and unpleasantness ( $F(2,112)=44.743, p<.001, \text{partial eta squared}= .263$ ).

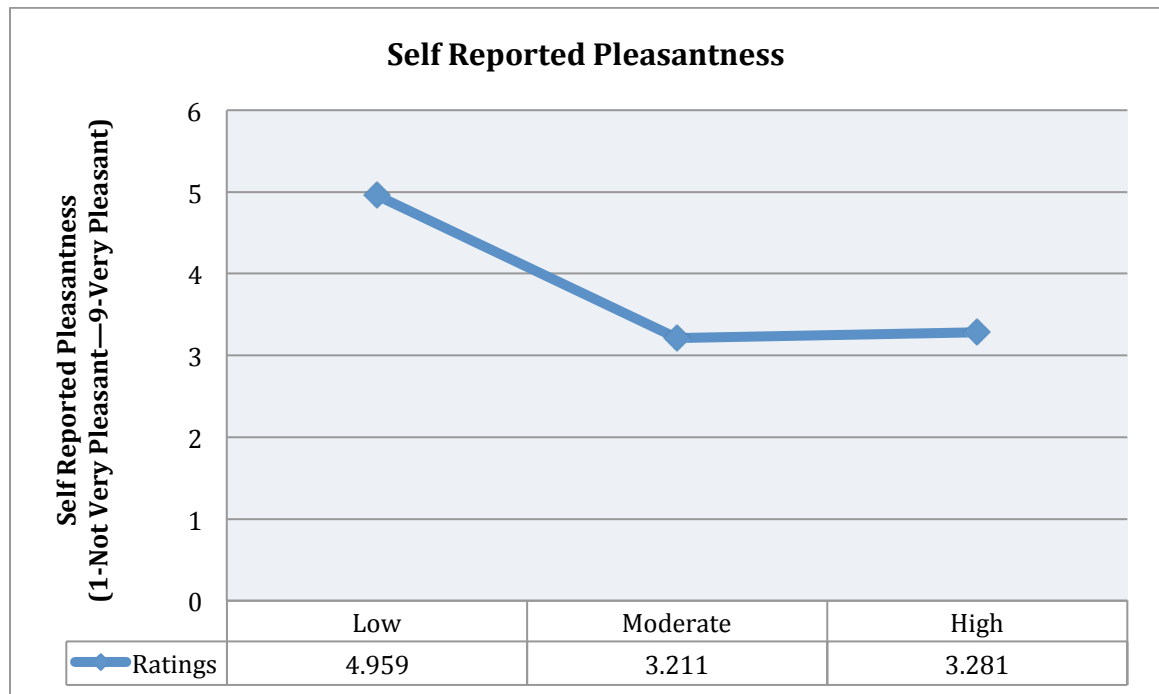
*Pleasantness*

Mean self-reported ratings of pleasantness were higher for low intensity (M=4.959) compared to moderate intensity (M=3.211) and high intensity (M=3.281), and the difference was significant ( $p<.001$  for both low to moderate and low to high). Mean ratings of pleasantness for moderate intensity were lower than ratings for high intensity, but the difference was not significant ( $p=.663$ ).

**Table 2-Self-Reported Pleasantness Means by Intensity Level**

<i>Intensity</i>	<i>Pleasantness (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	4.959 (.220)	Low:Mod.	0.000
<b>Moderate</b>	3.211 (.175)	Mod.:High	0.663
<b>High</b>	3.281 (.166)	Low:High	0.000

**Figure 4-Mean Self-Reported Pleasantness Ratings**



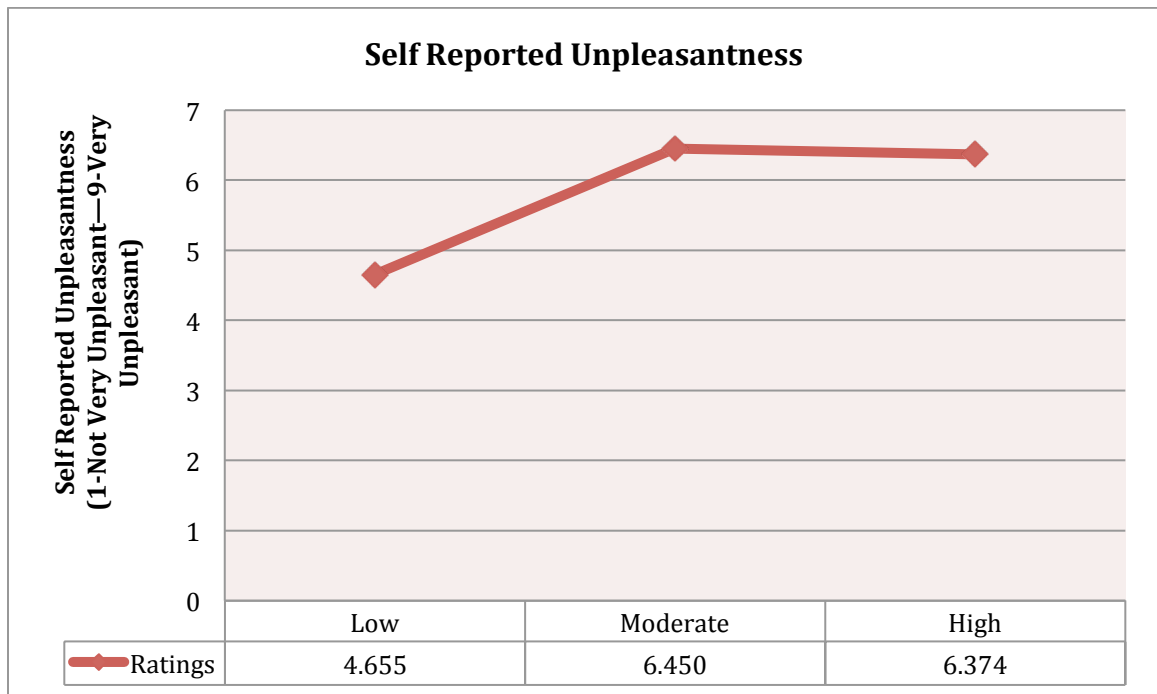
*Unpleasantness*

Mean self-reported ratings of unpleasantness were lower for low intensity (M=4.655) compared to moderate intensity (M=6.450) and high intensity (M=6.374), and the difference was significant ( $p<.001$  for both). Mean ratings of unpleasantness for moderate intensity were higher than ratings for high intensity, but the difference was not significant ( $p=.676$ ).

**Table 3-Self-Reported Unpleasantness Means by Intensity Level**

<i>Intensity</i>	<i>Unpleasantness (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	4.655 (.234)	Low:Mod.	0.000
<b>Moderate</b>	6.450 (.185)	Mod.:High	0.676
<b>High</b>	6.374 (.161)	Low:High	0.000

**Figure 5-Mean Self-Reported Unpleasantness Ratings**



The results from these self-report measures of arousal, pleasantness, and unpleasantness indicate that the perceived emotional intensity between the



moderate and high aversive videos presented videos was successfully manipulated. In contrast to this however, the results suggest that the valence of the intensity between the content of the videos was less than stellar as the results were nearly identical.

## **Physiological Results**

### *Corrugator Facial EMG*

Hypothesis 1 predicted that there would be an aversive content x time interaction on negative emotional valence such that corrugator facial EMG activity across time would be greatest during exposure to high aversive evoking content followed by moderate aversive evoking content with low aversive evoking content videos eliciting the least amount of corrugator activity. Time points were averaged to 29, as the shortest video was 29 seconds, and corrugator activity was averaged over time. A 3 (Intensity) x 3 (Video) x 29 (Time) repeated measures ANOVA was used to analyse this effect. There was not a significant interaction of corrugator activity, time, and intensity ( $F(56,2576)=.998, p=.481, \text{partial eta squared}=.025$ ).

Mean estimates of corrugator activity were found to be lower for low intensity videos ( $M=.334$ ) compared to both moderate ( $M=2.002$ ) and high intensity ( $M=2.112$ ) videos but not significantly. The differences for low intensity messages were not significant when compared to moderate intensity ( $p=.144$ ), nor when compared to high intensity ( $p=0.101$ ). Even though the mean estimates of corrugator activity for moderate intensity were lower than ratings for high intensity, the difference was not significant ( $p=.876$ ). Directional interpretation of the

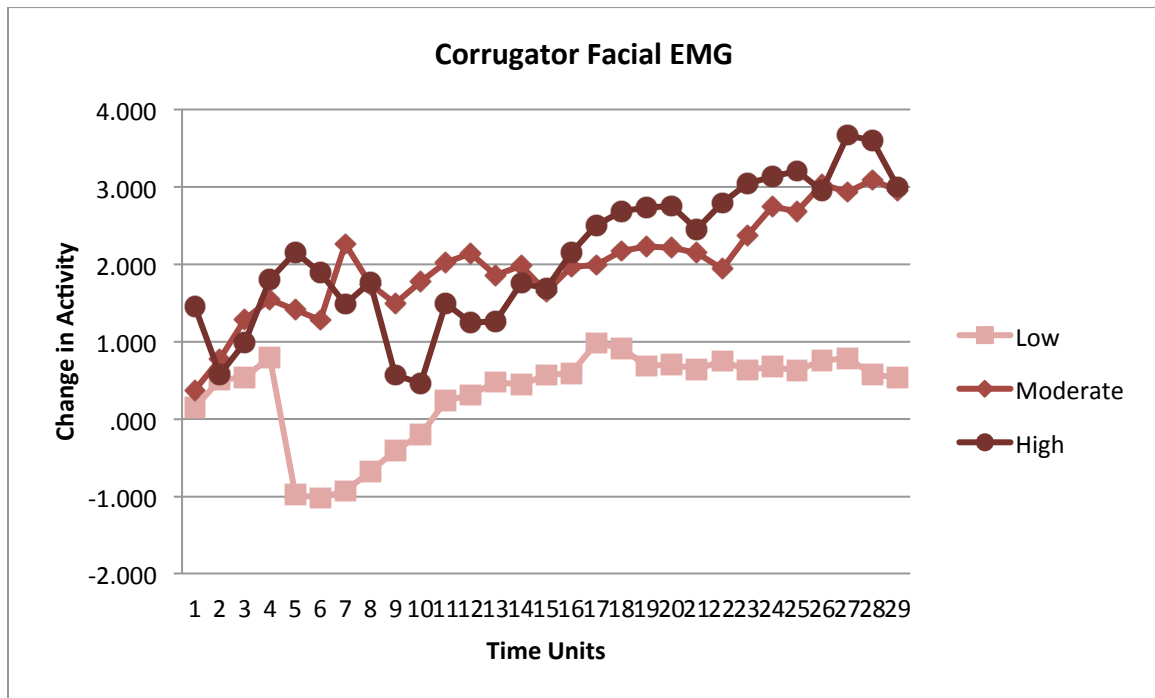
corrugation intensity means despite the non-significance indicates that as aversive evoking content increases, the changes in corrugator activity also increase. This provides evidence for increasing displeasure in relation to video intensity.

Hypothesis 1 was not supported.

Table 4- Corrugator Facial EMG by Intensity Level

<i>Intensity</i>	<i>Corrugator (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	.334 (.724)	Low:Mod.	0.144
<b>Moderate</b>	2.002 (.740)	Mod.:High	0.876
<b>High</b>	2.112 (.637)	Low:High	0.101

Figure 6- Mean Corrugator Facial EMG Activity Over Time



### *Skin Conductance*

Hypothesis 2 predicted there would be an aversive content x time interaction on arousal such that skin conductance activity across time would be greatest during

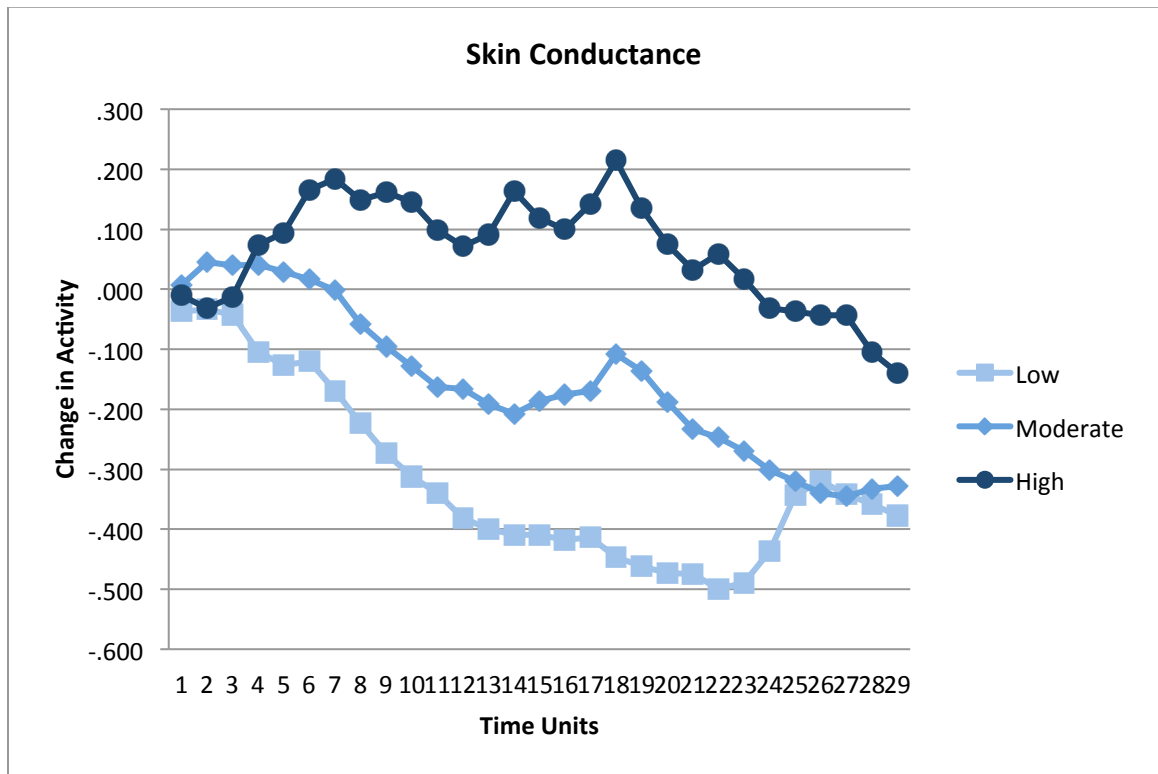
exposure to high aversive evoking content followed by moderate aversive evoking content with low aversive evoking content videos eliciting the lowest level of skin conductance. Time points were averaged to 29, as the shortest video was 29 seconds, and skin conductance was averaged over time. A 3 (Intensity) x 3 (Video) x 29 (Time) repeated measures ANOVA was used to analyse this effect. There was a significant main effect on skin conductance over time and intensity ( $F(56, 2744)=4.847, p<.001, \text{partial eta squared}=.085$ ). There was also a significant main effect on skin conductance over intensity ( $F(2,98)=7.184, p=.001, \text{partial eta squared}=.121$ ).

Mean estimates of skin conductance were lower for low intensity ( $M=-.319$ ) compared to moderate intensity ( $M=-.156$ ) and high intensity ( $M=.063$ ). The differences concerning low levels of intensity were found to be significant compared to high intensity ( $p=.002$ ), but not compared to moderate intensity ( $p=.096$ ). The mean estimate of skin conductance for high intensity was significantly different compared to moderate intensity ( $p=.012$ ). This suggests that as the intensity of the aversive evoking content increased, changes in skin conductance increased accordingly. Hypothesis 2 was partially supported.

**Table 5- Skin Conductance Means by Intensity Level**

<i>Intensity</i>	<i>Skin Con. (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	-.319 (.074)	Low:Mod.	0.096
<b>Moderate</b>	-.156 (.059)	Mod.:High	0.012
<b>High</b>	.063 (.078)	Low:High	0.002

Figure 6- Mean Skin Conductance Activity Over Time



*Heart Rate/Cardiac*

Hypothesis 3 predicted that there would be an aversive content x time interaction on cognitive resources allocated to encoding such that cardiac deceleration across time would be greatest during moderate aversive evoking content followed by low aversive evoking content with high aversive content videos eliciting the least cardiac deceleration. A 3 (Intensity) x 3 (Video) x 29 (Time) repeated measures ANOVA was used to analyse this effect. There was a significant main effect on cardiac rate over time and intensity ( $F(56, 2016)=1.970, p<.001$ ).

Mean estimates of cardiac rates were lowest for moderate intensity ( $M=-3.130$ ) when compared to low intensity ( $M=-1.501$ ) and high intensity ( $M=-1.827$ ),

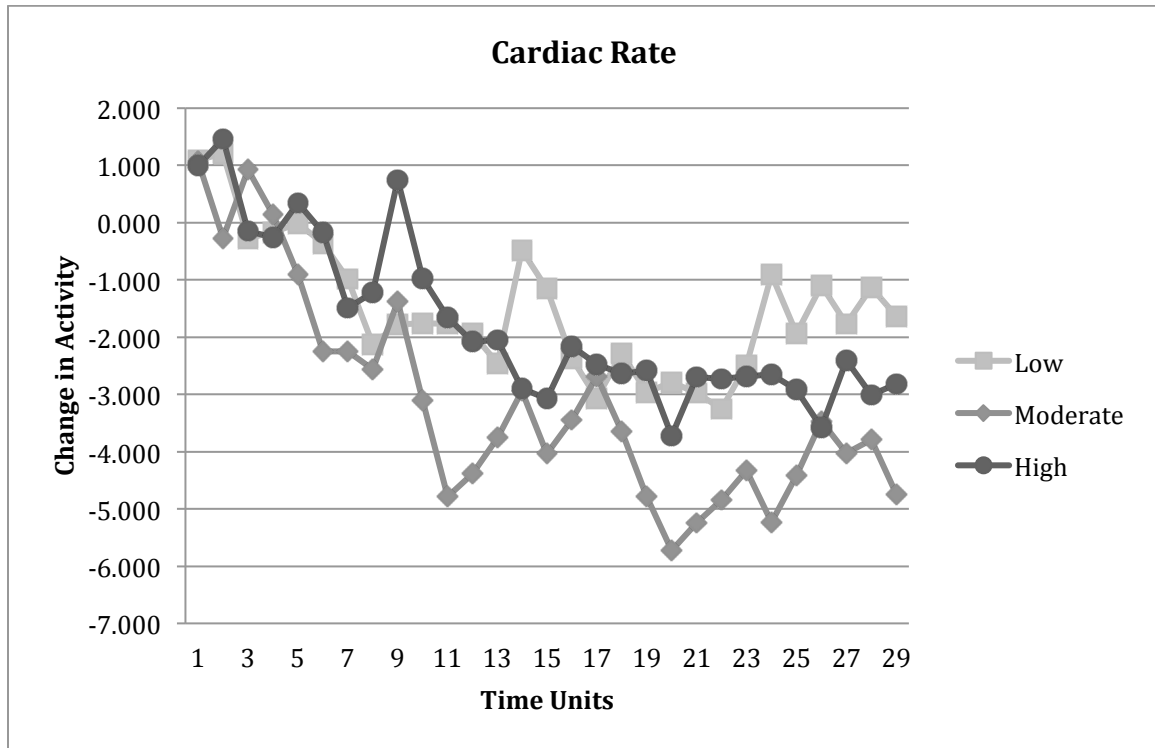
however the differences were not statistically significant ( $p=.216$ ,  $p=.917$  respectively). The main effect of intensity considered in conjunction with the plotted data in Figure 7 shows cardiac deceleration across time for moderate intensity was the lowest, thereby suggesting greater cognitive resources allocated to encoding.

Hypothesis 3 was partially supported.

Table 6- Cardiac Rate Means by Intensity Level

<i>Intensity</i>	<i>Heart Rate (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	-1.501 (.596)	Low:Mod.	0.216
<b>Moderate</b>	-3.130 (1.121)	Mod.:High	0.917
<b>High</b>	-1.827 (.675)	Low:High	0.740

Figure 7- Mean Cardiac Rate Activity Over Time



## Intent to Forward Results

Hypothesis 4 predicted that there would be a main effect of aversive evoking content on intent to forward the video such that intent to forward would be higher for moderate aversive evoking content followed by low aversive evoking content with high aversive content videos eliciting the lowest level of behavioural intent. A 3(Intensity) x 3 (Video) repeated measures ANOVA was used to analyse this effect. There was a significant main effect on level of intensity towards the intent to forward ( $F(2,112)=9.919, p<.001, \text{partial eta squared}= .313$ ).

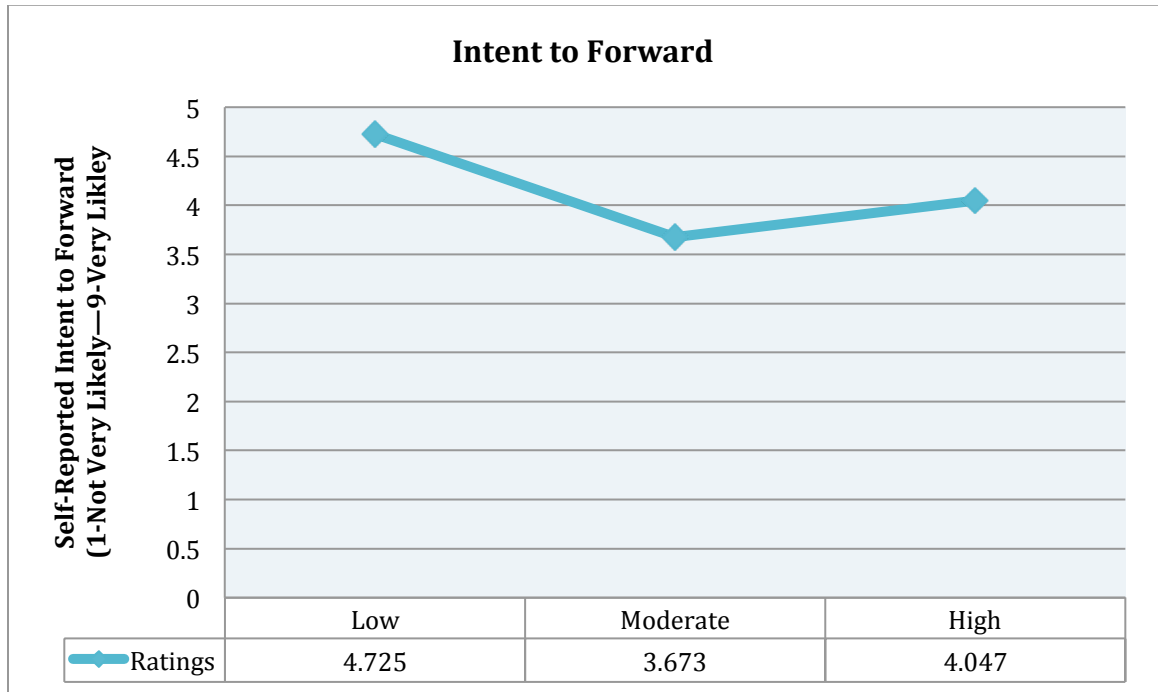
Mean self-reported ratings of intent to forward were higher for low intensity ( $M=4.725$ ) compared to moderate intensity ( $M=3.673$ ) and high intensity ( $M=4.047$ ) and the differences were significant ( $p<.001$  [low to moderate] and  $p=.010$  [low to high]). Mean ratings of behavioural intent for moderate intensity were lower than high intensity, but the difference was not significant, though it approached significance ( $p=.055$ ). The effect of aversive content on intention to forward is discernible via the intensity means, though the predicted direction was erroneous.

Hypothesis 4 was partially supported.

Table 7- Self-Reported Intent to Forward Means by Intensity Level

<i>Intensity</i>	<i>Intent to Forward (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	4.725 (.266)	Low:Mod.	0.000
<b>Moderate</b>	3.673 (.262)	Mod.:High	0.055
<b>High</b>	4.047 (.270)	Low:High	0.010

Figure 8- Mean Self-Reported Intent to Forward Ratings



*Behavioural Intent Results*

Self reported measures of behavioural intent were combined to form a single behavioural intent variable, which were all rated by the participants on a nine-point scale. The variables not only questioned the participant on intent to forward, but also on the intent to donate and the intent to volunteer. The variables were meant to illustrate an overall intention to act incorporating not only the intent to forward, but also the aim to take physical action towards the goal of the presented cause or idea. These self-report measures were tested for internal reliability using Chronbach’s Alpha. The variable had a Chronbach’s Alpha ranging from 0.924–0.797, depending on the video. Results can be seen in the table below.

**Table 8-Chronbach's Alpha of Self-Reported Behavioural Intent**

<i>Video</i>	<i>Chronbach's <math>\alpha</math></i>
<b>3</b>	0.797
<b>4</b>	0.924
<b>5</b>	0.816
<b>6</b>	0.863
<b>7</b>	0.842
<b>9</b>	0.843
<b>10</b>	0.770
<b>11</b>	0.880
<b>12</b>	0.879

Self reported measures of behavioural intent were analysed using a repeated measures 3 (Intensity) x 3 (Video) ANOVA. There was a significant main effect on level of intensity towards behaviour ( $F(2,112)=22.085, p<.001$ ).

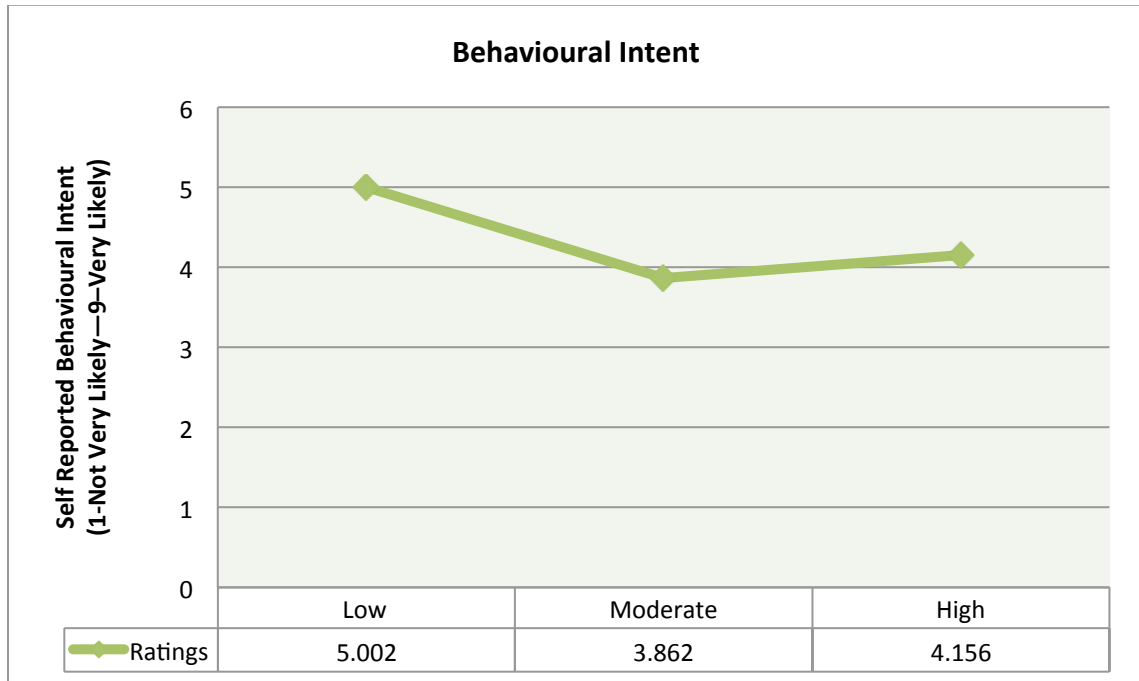
Mean self-reported ratings of behavioural intent were higher for low intensity ( $M=5.002$ ) compared to moderate intensity ( $M=3.862$ ) and high intensity ( $M=4.156$ ) and the differences were significant ( $p<.001$  for both). Mean ratings of behavioural intent for moderate intensity were lower than high intensity, but the difference was not significant, though it approached significance ( $p=.064$ ).

**Table 9- Self-Reported Behavioural Intent Means by Intensity Level**

<i>Intensity</i>	<i>Behavioural Intent (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	5.002 (.229)	Low:Mod.	0.000
<b>Moderate</b>	3.862 (.226)	Mod.:High	0.064
<b>High</b>	4.156 (.212)	Low:High	0.000



Figure 9- Mean Self-Reported Behavioural Intent Ratings



### Persuasion Results

Hypothesis 6 predicted that there would be a main effect of aversive evoking content on persuasiveness such that persuasiveness would be higher for moderate aversive evoking content followed by low aversive evoking content with high aversive evoking content videos eliciting the lowest level of persuasiveness.

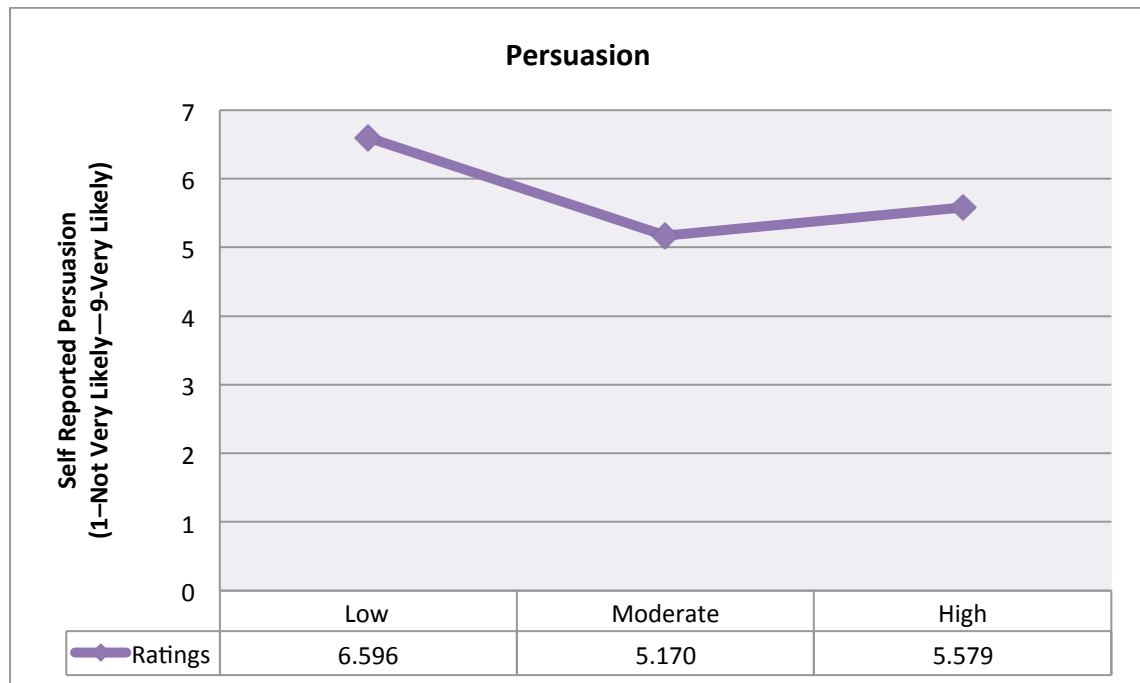
Self reported measures on the perceived effectiveness of content were rated by the participants on a nine-point scale. The self-reported results of persuasion were analysed using a repeated measures 3 (Intensity) x 3 (Video) ANOVA. There was a significant main effect on level of intensity towards persuasion ( $F(2,112)=19.932, p<.001$ ).

Mean estimates of self-reported persuasion were higher for low intensity ( $\mu=6.596$ ) compared to moderate intensity ( $M=5.170$ ) and high intensity ( $M=5.579$ ) and the differences were significant ( $p<.001$  for both). Mean ratings of persuasion for moderate intensity were lower than high intensity, but the difference was not statistically significant ( $p=.064$ ). Hypothesis 5 was partially supported.

**Table 10- Self-Reported Persuasion Means by Intensity Level**

<i>Intensity</i>	<i>Persuasion (Std. Er.)</i>	<i>Pairwise</i>	<i>Significance</i>
<b>Low</b>	6.596 (.188)	Low:Mod.	0.000
<b>Moderate</b>	5.170 (.245)	Mod.:High	0.064
<b>High</b>	5.579 (.198)	Low:High	0.000

**Figure 10- Mean Self-Reported Persuasion Ratings**



# 5

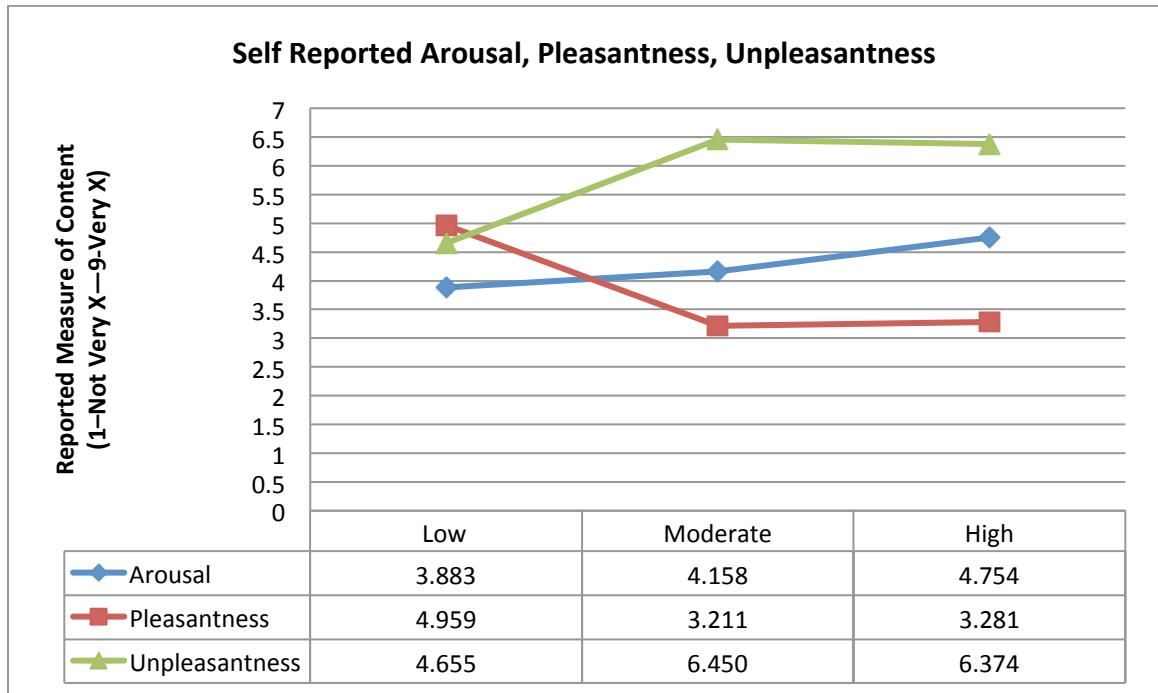
## Discussion

This study sought to examine the relationship between aversive evoking content in viral videos, and how advocacy groups can better use it to inspire and influence behavioural intent. Physiological measures were used to indicate arousal, emotional valence, and cognitive resources allocated to encoding via skin conductance, corrugator activity, and heart rate respectively. Behavioural intent was measured in order to examine the effects of aversive evoking content on the intent to take action in the future. Significant effects of the intensity of the aversive evoking content over time, and of the intensity itself were found for all dependent variables excepting corrugator facial EMG.

To a large extent the results evince that increasing levels of negative content cause a person's aversive motivational system to activate. The videos that rated the highest overall amongst participants all contained scenes of gore, sexuality, and violence videos that were rated lowest by the experimental results on the other hand, contained figures or stories presented in a persuasive and informative way. Self-reported measures of arousal, pleasantness, and unpleasantness show that negative content in high and moderate levels is clearly present, however the valence

of intensity present in the stimulus material is nearly unintelligible.

Figure 11- Self-Reported Arousal, Pleasantness, Unpleasantness



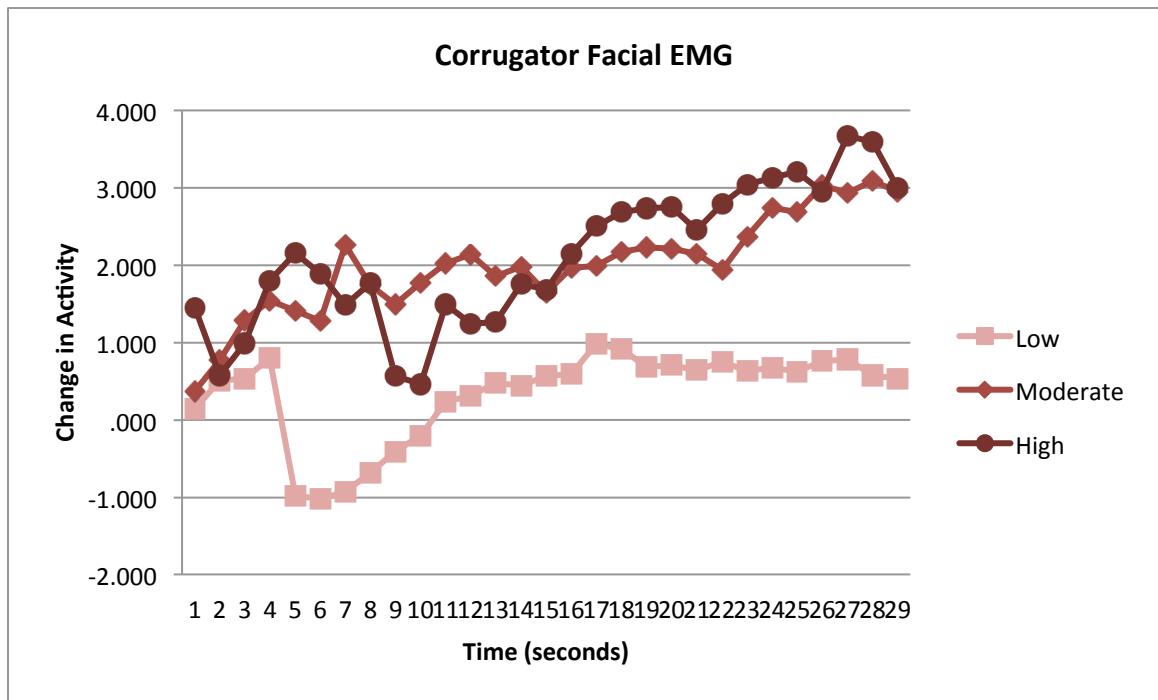
Low intensity videos had a significantly lower level of aversive evoking content in comparison to moderate, and high intensity videos as seen in Figure 11 above. It is interesting to note that moderate intensity videos seem to have been slightly less pleasant, and slightly more unpleasant than the high intensity videos, though these differences were not significant. Arousal however, follows an upward trend along the levels of aversive content, with significant differences between moderate and high levels of intensity.

Although corrugator facial EMG results were not significant over intensity or over time, the means indicate a positive trend between aversive content and displeasure. When examining the averages, low intensity videos have the lowest

level of followed by moderate and then high intensity videos.

When the change in activity is plotted over time as seen in Figure 12 a trend emerges. Within the first 10–14 seconds of the videos there is a great deal of variation in both the high and moderate intensity videos, this is most likely because of introductory material presented in the videos. However, as the video continues, high intensity videos evoke a higher level of corrugator activity, followed by moderate, and low intensity levels.

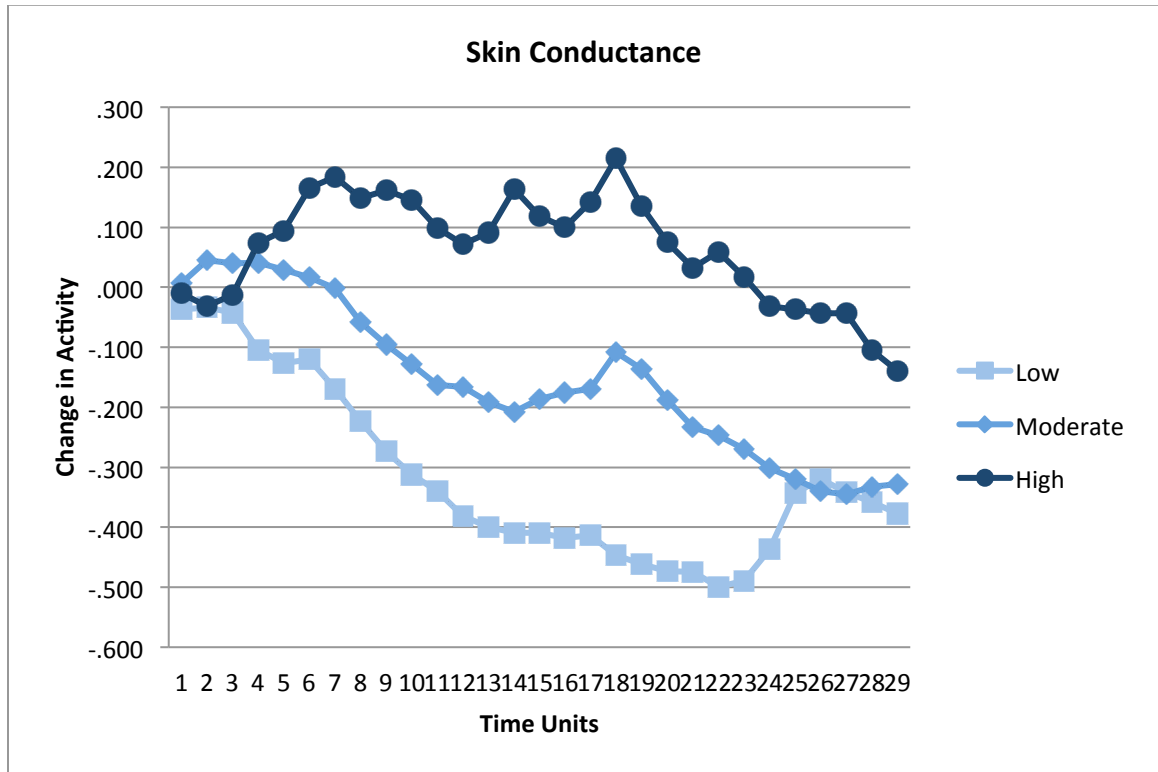
Figure 13- Corrugator Activity Over Time



If skin conductance is taken into account when attempting to decipher the combined indications of the self-report measures and corrugator facial EMG, the positive correlation between negative content and activation of aversive motivation systems becomes more apparent.

Figure 13 illustrates that there are noticeable differences between the three intensity levels over time, especially during the middle seconds where larger proportions of aversive evoking content was shown in comparison to the beginning and end of the videos. The first few seconds show skin conductance beginning at zero, explained by the blank screen participants viewed prior to each video. The beginning low measurements show the initial state of “calm”. As all of the videos ended with a message from their respective companies, this may explain the lowering in skin conductance in the last seconds of the videos. Throughout the middle of the videos, seconds 5–24, skin conductance activity across time was greatest during exposure to higher levels of aversive evoking content, followed by moderate intensities, with low aversive evoking content videos inducing the lowest level of skin conductance and arousal. The salient differences between the trending lines mimic those of the self-reported measures of arousal and suggest a successful manipulation of the dependent variables.

Figure 14- Skin Conductance Activity Over Time

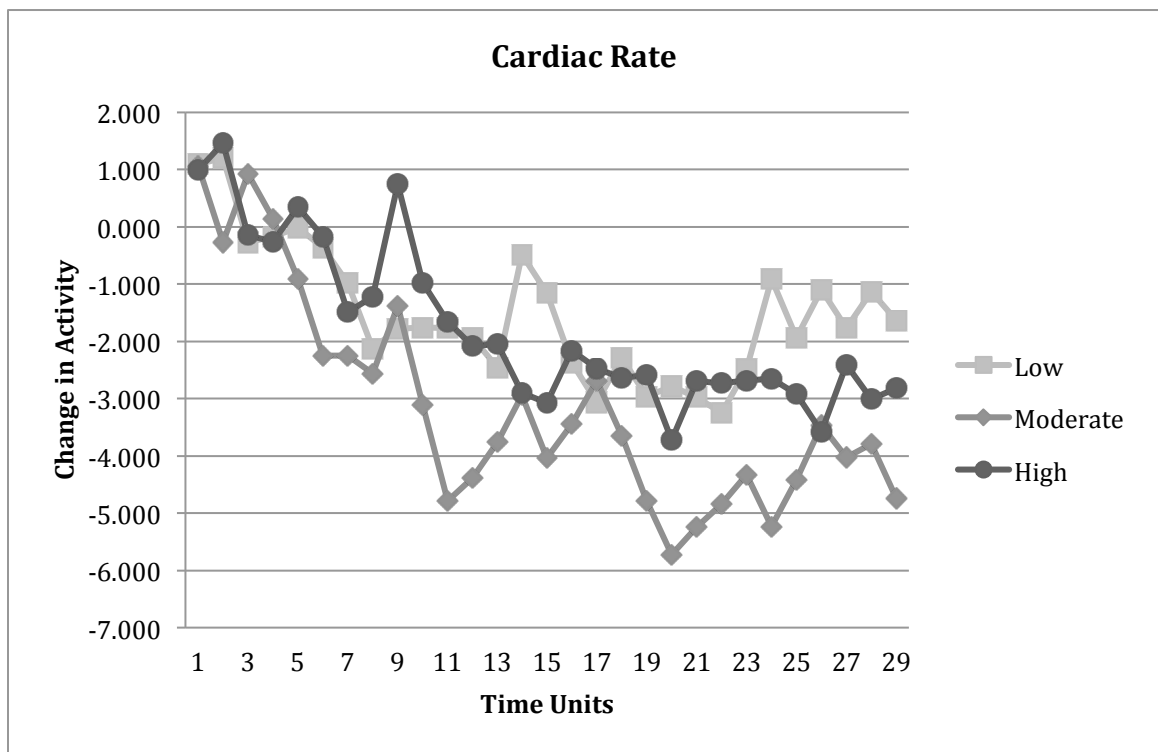


Aversive evoking content on cardiac rate had a significant main effect on intensity over time, illustrating a significant interaction on cognitive resources allocated to encoding. Although the differences between the means of low, moderate, and high intensities were not statistically significant, moderate intensity videos did have greater deceleration over time when compared to low and moderate intensity levels. The high intensity mean was between low and moderate levels, illustrating that, though not significantly different, more cognitive resources were allocated to encoding compared to videos containing lower levels of aversive evoking content.

Though not strikingly different, a trend can be seen for cardiac deceleration over time when examining the plotted means in Figure 14 below. The graph depicts

moderate levels of aversive evoking content containing the lowest values of cardiac deceleration, and therefore elucidating more cognitive resources being allocated to encoding. This shift in cognitive resources signifies that participants paid more attention to moderate messages than either low or high intensity messages. The aversive content here acted as a figurative hook, in terms of viral messaging this is a strong indicator of a person's likelihood of responding to a message by either forwarding it or responding to it's call to action (Berger, 2011; Vernallis, 2011).

**Figure 15- Cardiac Deceleration Over Time**



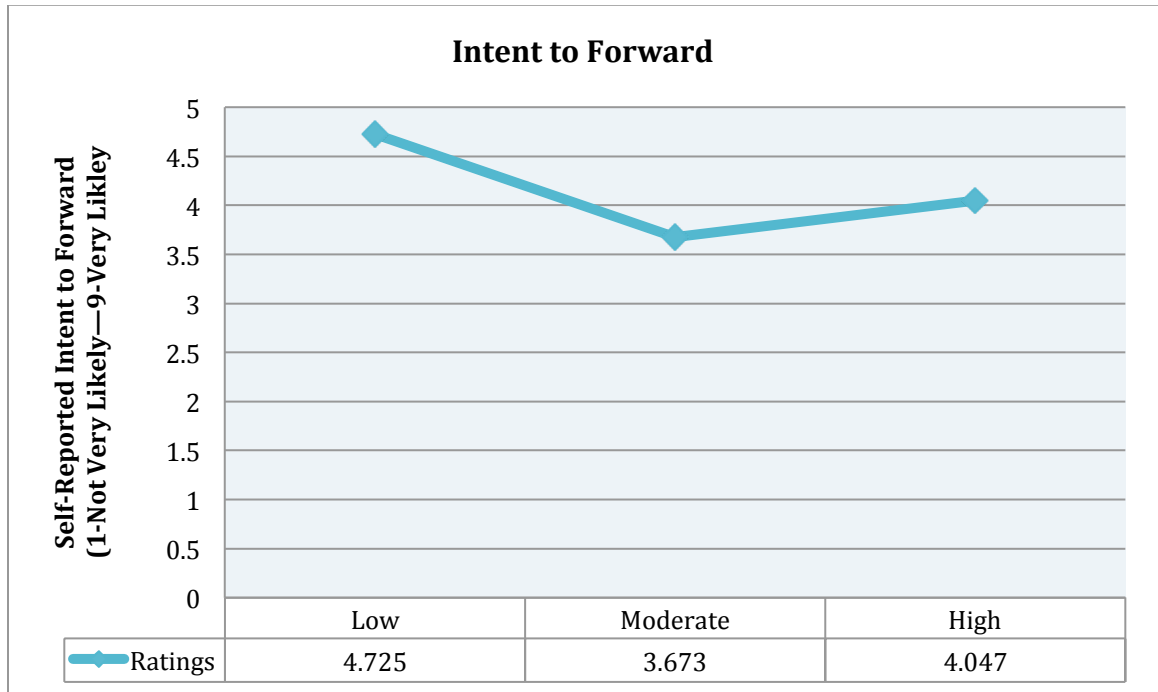
When results for physiological data are considered in a fused manner the videos were negative in terms of the levels of intensity, however when dealing with moderate and high levels of intensity, equal valence was found. The most likely explanation for this is that the point of pushing participants into the defensive



cascade was not reached by the presented content. This means that the group of participants somehow processed the higher levels of intensity in such a way that emotional resources were not used as a withdrawal or defensive technique. This is mainly supported by the corrugator data, as we can see that all of the messages are aversive however they are not *varying* levels of aversive. This is also seen in the presented cardiac data. Participants allocated similar levels of cognitive resources to encoding for both low and high intensities. If participants had been pushed into a defensive cascade cardiac rates would have significantly accelerated (Leshner, Bolls, & Wise, 2011). These results strongly suggest that the use of aversive evoking content in advocacy videos is a viable strategy.

Moving on to behavioural intention and perceived effectiveness of the presented content, results from the self-report measures of intent to forward are indicative of a main significant effect of intensity on intent to forward. According to the means, the lowest levels of aversive evoking content have the highest chance of being shared with others, followed by high levels of aversive content, with moderate aversive content having the lowest rating of intent to forward. The effect of intensity is clear in the figure below, even though the level of aversive content is not in direct relation with the intent to forward.

Figure 16- Self-Reported Intent to Forward



In relation to this, a second ANOVA was conducted with the intention of finding an overall behavioural intent variable by combining questions concerning not only the intent to forward, but also the participant’s likelihood of volunteering and of donating money. The results nearly mirror those of intent to forward though with no distinguishable differences.

Continuing on to the self-reported ratings of persuasion, there was a significant main effect of intensity. Results further indicated that varying levels of perceived aversive evoking content have a significant effect on the level of persuasion. Overall, participants were more persuaded by lower intensity messages, followed by high intensity, with moderate aversive evoking content eliciting the lowest level of persuasion. This means that Hypothesis 5 was partially supported, as

there was a significant main effect, however persuasiveness did not follow the predicted trend.

An interesting option explaining why moderate levels of aversive evoking content prompt lower levels of persuasiveness and behavioural intent may be that targeted audiences desire a “feel-good” message. Videos containing aversive content have been used for years in an attempt to alter society’s behaviour. It is possible, that these messages have become out-dated, and that in the current market, with the current technology available, those tactics simply do not work. Audiences may want to experience higher levels of pleasure and pleasantness when participating or acting in ways that assist and enhance the current state of the world, without negative connotations or aversive stimulation.

This research suggests that even though higher use of arousing inducing content has been linked to behavioural intentions in the past, the poignancy of the message may be a contributing factor. Many of the lower and moderate intensity videos contained references or scenes that presented the viewer with a type of visual puzzle. For example, in one of the low intensity videos a family has gathered for thanksgiving. The daughter is asked to recite a prayer and she proceeds to thank God for all of the chemicals in the turkey her family is about to eat. The scene continues with the little girl describing horrific scenes of torture that turkeys are subjected to, as well as the conditions they are bred in. The contrast between a picturesque family gathering and the graphic imagery manifested by the girl’s language provides the viewer with something to consider in order to understand

exactly what is going on. The viewer must understand that the girl is being genuine in her thanks, but at the same time being critical; she is the average consumer, one who knows the consequences of what she imbibes but who is ultimately indifferent. This sort of “thought puzzle” acted as a hook for the viewer and increased the likelihood of forwarding the message. This study provides evidence that viewers desire a more personal and poignant message, rather than one saturated with aversive images and flashy video editing (i.e. containing loud music or a large number of scene cuts). This intrinsic desire to engage in cognitive effort is known as the need for cognition. According to previous research, individuals with a higher need for cognition tend to have higher behavioural intentions than those with a lower need for cognition (Cacioppo, Petty, Kao, & Rordriguez, 1986). Since the participants were, to an extent, college educated the need for cognition may have played a role in their intention to forward the viral video.

If this is true it indicates that there is a movement away from the typical superficial advertising of the past decade. It’s arguable that if advertising evolves then the techniques used by advertisers also evolve, for example moving from being marketer driven to consumer driven (Lutz, 2012). This movement in conjunction with the results presented in this study illustrate a person’s growing need for thematic, intelligent, and humanistic advertising from the videos they watch. It’s a reoccurring question in media whether media mimics society or society mimics media, however if both are equally parasitic to the other these results indicate a shift not only in a person’s need for cognition, but also their need for meaning. If

meaning can be found in viral media created by advocacy groups then a person has something to connect to and aspire for. Overall, this is what is needed in order to produce successful viral campaigns for these groups.

Conversely and in reference to the aforementioned lack of movement towards defensive cascading, another technique for future results would be to create a stronger manipulation variable. More rigorous pre-testing with a wider range of videos containing aversive evoking content with clear distinguishable levels would provide more accurate results. It would also be interesting to use a mini-MAM in similar studies. By integrating this test, a baseline of tolerance could be determined prior to participants' exposure to aversive content. Since the majority of participants were under the age of twenty-one ( $\mu_a=20.30$ ) their pre-frontal cortices have yet to reach full maturity, which may have an effect on the person's ability to comprehend entirely the abstraction and implications of what was presented to them in the content of the videos (Gogtay et al., 2004; O'Donnell et al., 2005; Nelson & Guyer, 2011). For example, participants may have simply not been able to decipher the long-term negative effects of the presented concepts being shown which prevented them entering into a cognitive or emotional defensive stance.

Future research in this area can be improved in a number of ways. Many participants commented on the fact that the videos chosen were for the same related causes, either environmental issues, animal rights, or encouraging the viewer to go vegan/vegetarian. If other advocacy videos had been used, for example those illustrating tolerance towards alternate sexualities, or videos against racism

and discrimination—more reliable and applicable results may be found. Due to the limited nature of topics in the videos chosen, the results may be skewed towards environmental/animal rights research. It would be interesting to find out if there were different success rates depending on the advocacy group or advocacy topic in question. For example, “campaigns for some health topics have been more effective than campaigns for other topics”(Snyder, 2007, p. 332).

A possible bias of this study was the lack of male participants. Out of the total 57 participants, only 20 were males, which may have affected the experiment outcomes.

If it were possible to conduct this experiment with significantly more funding, the ultimate way would be to produce and create viral videos, which contain not only aversive evoking content, but also pleasurable content. If there could be three versions of the same advertisement not only with varying degrees of aversive content but also counterbalanced with more positive content, I think a more definite relationship between effectiveness of viral videos and their content could be determined. To expand on this point, a third of the videos, while low on aversive content, contained pleasant music, or a soothing voice. All of these can be classified as more positive evoking content, rather than neutral content. This in and of itself is a conflict of interest within the current study since the researcher only meant to look at *aversive* evoking content.

From the results presented here, and taking into account the study's limitations, advocacy groups may have better results with effective messaging by

using less aversive content in their viral messages if they want to reach a wider audience that encapsulates a slightly younger generation. It can also be inferred that utilisation of negative content aimed at an older audience may have a more prominent effect on the behavioural intentions of that audience.

Encouraging action among a wide audience is an arduous task, especially when that task appears insurmountable. However, further research in this field can assist in helping advocacy groups create clear, definitive messages to their audiences that encourage transformation and an improved society.

## APPENDIX 1 – Pre-Test Questionnaire

Depending upon the condition in which the participants were placed they were given directions as follows.

### Condition 1:

*Please watch the following videos. While each video is being shown you are asked to indicate your continuous response to the PLEASANTNESS of the video's content. Use the labelled keys to indicate how PLEASANT the perceived content is. Use the GREEN key to indicate MORE PLEASANT perceived content and the RED key to indicate LESS PLEASANT perceived content. Remember, you must CONTINUOUSLY respond throughout the course of the video. Please ask the researcher if you have any questions. Place your fingers on the green and red keys, hit "Continue" at the bottom of the screen, and the first video will begin.*

### Condition 2:

*Please watch the following videos. While each video is being shown you are asked to indicate your continuous response to the UNPLEASANTNESS of the video's content. Use the labelled keys to indicate how UNPLEASANT the perceived content is. Use the GREEN key to indicate MORE UNPLEASANT perceived content and the RED key to indicate LESS UNPLEASANT perceived content. Remember, you must CONTINUOUSLY respond throughout the course of the video. Please ask the researcher if you have any questions. Place your fingers on the green and red keys, hit "Continue" at the bottom of the screen, and the first video will begin.*

### Condition 3:

*Please watch the following videos. While each video is being shown you are asked to indicate your continuous response to the AROUSAL of the video's content. Use the labelled keys to indicate how AROUSING the perceived content is. Use the GREEN key to indicate MORE ANXIOUS/EXCITING perceived content and the RED key to indicate LESS ANXIOUS/EXCITING perceived content. Remember, you must CONTINUOUSLY respond throughout the course of the video. Please ask the researcher if you have any questions. Place your fingers on the green and red keys, hit "Continue" at the bottom of the screen, and the first video will begin.*

Following these directions each of the fifteen videos was shown. After each video in all three conditions the following three questions were asked.

*Please think about the video you just viewed, and the content as you answer the following questions.*

1. How Calm/Relaxed or Excited/Anxious did you find the content of this video?



- a. Calm/Relaxed
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Excited/Anxious
2. How PLEASANT did you find the content of this video to be?
- a. Not at all PLEASANT
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely PLEASANT
3. How UNPLEASANT did you find the content of this video to be?
- a. Not at all UNPLEASANT
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely UNPLEASANT

After watching the fifteen videos and answering the aforementioned questions concerning the content of each video, the same post-test was given to all participants regardless of condition. It went as follows.

*Now there will be a few questions about your Internet habits.*

1. Please rank the following social media sites in the order you use the most often. That is with the most heavily used on top, and the least used on the bottom.
- a. Twitter
  - b. Reddit
  - c. Facebook
  - d. Tumblr
  - e. Google+

- f. YouTube
  - g. Pintrest
2. Do you watch videos on the Internet? (Not including TV shows or Movies)
    - a. Yes
    - b. No
  3. Overall, are you more likely to watch a video posted by someone you know?
    - a. Yes
    - b. No
  4. Please rank the following in terms of how likely you would be to watch a POSTED/SHARED/REBLOGGED video from the listed persons, from most likely to least likely.
    - a. Family Member
    - b. Spouse
    - c. Classmate
    - d. Close Friend
    - e. Acquaintance
  5. Please rank the following in terms of how likely you would be to watch a video DIRECTLY SEND TO YOU from the listed persons, from most likely to least likely.
    - a. Family Member
    - b. Spouse
    - c. Classmate
    - d. Close Friend
    - e. Acquaintance
  6. When you receive a video from a friend who is MORE LIKE YOU, you generally...
    - a. Watch it immediately
    - b. Watch it later
    - c. Forget to watch it
    - d. Intentionally do not watch it
  7. When you receive a video from a friend who is DIFFERENT FROM YOU, you generally...
    - a. Watch it immediately
    - b. Watch it later
    - c. Forget to watch it
    - d. Intentionally do not watch it
  8. Where are you more likely to FIND video links? Please rank from most likely to least likely.
    - a. Twitter
    - b. Reddit
    - c. Facebook
    - d. Tumblr
    - e. Google+

- f. YouTube
  - g. Pintrest
9. Where are you more likely to CLICK on video links? Please rank from most likely to least likely.
- a. Twitter
  - b. Reddit
  - c. Facebook
  - d. Tumblr
  - e. Google+
  - f. YouTube
  - g. Pintrest
10. When watching a video online, what characteristics do you look for? Please rank the following in order of desirability from most desired to least desired.
- a. Entertainment
  - b. Relevant News
  - c. High Liking
  - d. Empathy
11. When watching a video online, what characteristics do you not look for? Please rank the following in order of undesirability from most undesired to least undesired.
- a. Confusion
  - b. Alienation
  - c. Low Liking
  - d. Boring
12. Estimate how frequently you forward/share ANY online content in a given week.
- a. Never
  - b. 1-2 times
  - c. 3-5 times
  - d. 6-10 times
  - e. 11-20 times
  - f. More than 20 times
13. Estimate how frequently you forward/share ONLY viral videos in a given week.
- a. Never
  - b. 1-2 times
  - c. 3-5 times
  - d. 6-10 times
  - e. 11-20 times
  - f. More than 20 times
14. Are you...
- a. Male
  - b. Female

15. Please enter your age.

*Thank you for your participation! Inform the researcher you have finished!*

## APPENDIX 2- Pre-test Results

Videos within the desired range had to possess a combination of low pleasantness, high unpleasantness, and high arousal. Results are presented showing the level of intensity the video was perceived as by its location in the table. The top three in each table have all the desirable traits, the middle three less, and the bottom three even less. The six videos at the bottom of each column indicate undesirable ratings (i.e. the video was too pleasant).

### *Continuous Response Measure Data*

Video	Pleasant	Video	Unpleasant	Video	Arousal
4	3.330	9	5.850	15	4.510
7	3.420	10	5.090	1	4.244
6	3.460	6	5.050	11	4.243
10	3.560	7	4.860	14	4.220
9	3.570	4	4.320	4	4.110
3	3.790	5	4.140	2	3.870
1	3.800	13	3.970	8	3.850
5	3.990	2	3.880	12	3.850
12	4.150	12	3.860	3	3.817
13	4.260	3	3.740	7	3.814
8	4.370	11	3.700	5	3.790
14	4.390	1	3.660	13	3.750
2	4.410	8	3.360	10	3.590
11	4.420	15	2.680	9	3.390
15	4.540	14	2.660	6	3.360

### *Self-Report Measure Data*

Video	Pleasant	Video	Unpleasant	Video	Arousal
9	2.300000	7	7.700	10	7.0500
7	2.450000	10	6.900	7	6.4500
10	2.800	9	6.500	6	6.400
5	3.3500	6	6.0500	13	6.300
6	3.400	5	6.00	9	6.2500
4	4.500	12	4.900000	2	6.100
3	4.800	3	4.850000	5	5.3500
11	4.850000	8	4.7500	4	4.700
12	4.850000	4	4.4500	3	4.4500
1	4.9500	11	4.300	8	3.8500
8	5.100000	2	4.00	12	3.5500
2	5.1500	13	3.500	11	3.400
13	5.600	1	3.500	14	2.500
15	6.5500	15	2.700	1	2.3500
14	7.400	14	2.3500	15	2.2500

*Final Chosen Videos*

	<b>1</b>	<b>2</b>	<b>3</b>
<b>High</b>	7	10	6
<b>Medium</b>	4	5	9
<b>Low</b>	3	12	11

*Video Order*

<b>1</b>	<b>2</b>	<b>3</b>
7	4	3
4	3	7
3	7	4
10	5	12
5	12	10
12	10	5
6	9	11
9	11	6
11	6	9

### APPENDIX 3- Recruitment Script

My name is Aida Amer and I will be conducting a study this fall in order to complete my thesis.

Your instructor (insert instructor name here) has given me permission to recruit from this class. In exchange for your participation you will be receiving extra credit. Your professor has determined this amount of credit and if you should choose not to participate, an alternative assignment is available to you instead.

The study will consist of watching several viral videos and commercials created by advocacy groups. Some of these videos are truly very graphic, violent, or sexual in nature, so please take that into consideration before agreeing to be a participant. After watching the videos you will be asked to answer a few questions.

While watching these videos I will be taking physical measurements; for example, heart rate. This will involve placing recording sensors on your palm, forearms, cheek, and brow. Again, this involves readings being taken *while you watch* the videos. There is again, minimal risk associated with this testing procedure.

I am looking forward to having you all as participants, and if you would like to participate you can email me at [aida.s.amer@gmail.com](mailto:aida.s.amer@gmail.com) or you can call or SMS me at 864-710-7635. You can also contact me if you have any questions or concerns about the experiment before you agree to participate.

The only requirement for this study is that you are above the age of 18, and that you are enrolled at the University of Missouri.

I thank you all for your time, and look forward to hearing from you concerning your participation in my attempt to graduate. Thank you.

## APPENDIX 4- Consent Form

University of Missouri School of Journalism PRIME Lab

IRB Project # 1204303

You are being asked to participate in a research study. The purpose of this study is to better understand the effectiveness of viral videos used by advocacy groups. The first part of this study involves viewing 9 viral videos from advocacy groups and indicating how the pictures make you feel. **SOME OF THE VIDEOS PORTRAY EXPLICIT SEXUAL, GRAPHIC, AND VIOLENT SCENES INCLUDING PARTIAL NUDITY AND BLOOD.** Please do not complete this study if these kinds of images are likely to offend you. Each video is about a minute long and you will then be asked some questions to indicate your feelings (pleasant or unpleasant) on the content of the video. Next, we will ask you questions about your general Internet behavior and practices. This study will take approximately one hour to complete. All data will be kept confidential. Your data will be identified only by a participant number and stored in a secure laboratory. No individual data will be reported. Data will only be reported as an aggregate of all participants in this study.

While you are participating, we will be recording your physiological responses. In order to do this we will place three sensors on your forearms, two sensors on your palm, two sensors on your cheek, two sensors just below your eye, and two sensors above your eyebrow. The sensors will be placed directly on the surface of your skin and connected to physiological response recording equipment. As a result of being connected to the recording equipment, there is an extremely small chance that you could experience electrical shock. In order to minimize this risk the following precautions are being taken:

1. No participants are run during inclement weather.
2. All equipment is connected to GFI protected outlets
3. All safety guidelines for physiological data collection are strictly adhered to.

Placing sensors on your skin should in no way cause any physical discomfort. Please let the researcher know immediately if you experience any form of discomfort.

Your participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue participation at any time without penalty or loss of benefits, to which you are otherwise entitled. In exchange for your participation you will receive course credit of a predetermined amount granted by your professor. If you chose to discontinue your participation you will still receive your course credit. There are not any other concrete benefits to participating in this study other than possible satisfaction of knowing you have helped advance the knowledge of how advocacy groups can create more effective advertising. If you have questions or concerns about the study or the procedures you may ask the researcher, Aida Amer, or contact Professor Paul Bolls, at 884-0170. You may also contact the MU Campus Institutional Review Board at 882-9585.

\_\_\_\_\_  
(participant's signature)

\_\_\_\_\_  
(date)



## APPENDIX 5- Experiment Questionnaire

**Before watching the videos and answering questions concerning those videos, participants will be asked to answer the following questions:**

1. Have you heard of ANY of the following advocacy groups/organizations?  
Peta, Greenpeace, Amnesty International, World Wildlife Fund (WWF),  
Adbusters/The Media Foundation, Human Rights Watch
  - a. Yes
  - b. No

Instructions: Please fill in the term that most accurately describes your attitudes and feelings.

1. "My general view of advocacy groups is \_\_\_\_\_."
  - a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable
2. "Overall, my feelings towards advocacy work are \_\_\_\_\_."
  - a. Very positive
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very negative
3. "My feelings about advocacy groups are \_\_\_\_\_."
  - a. Very strong
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...

- i. Not very strong
- 4. "My view towards PETA is \_\_\_\_\_."

  - a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable

- 5. "My view towards GREENPEACE is \_\_\_\_\_."

  - a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable
  - j. I am not familiar with GREENPEACE and their purpose.

- 6. "My view towards AMNESTY INTERNATIONAL is \_\_\_\_\_."

  - a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable
  - j. I am not familiar with AMNESTY INTERNATIONAL and their purpose.

- 7. "My view towards the WORLD WILDLIFE FUND (WWF) is \_\_\_\_\_."

  - a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...

- i. Very unfavourable
  - j. I am not familiar with the WWF and their purpose.
8. "My view towards ADBUSTERS/THE MEDIA FOUNDATION is \_\_\_\_\_."
- a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable
  - j. I am not familiar with ADBUSTERS/THE MEDIA FOUNDATION and their purpose.
9. "My view towards HUMAN RIGHTS WATCH is \_\_\_\_\_."
- a. Very favourable
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Very unfavourable
  - j. I am not familiar with HUMAN RIGHTS WATCH and their purpose.
10. Have you ever participated in ANY advocacy group?
- a. Yes
  - b. No
11. How likely is it that you would consider participating in an advocacy group of your choosing?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
12. Have you ever donated to an advocacy group?
- a. Yes
  - b. No

13. How likely is it that you would donate to an advocacy group whose goals were SIMILAR TO YOURS?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
14. How likely is it that you would donate to an advocacy group whose goals were ALIGN WITH PEOPLE LIKE YOU?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
15. How likely is it that you would donate to an advocacy group whose goals were ALIGN WITH PEOPLE DIFFERENT FROM YOU?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely

**The following questions will come after each video.**

You will now be shown a total of 9 viral videos. Some of these videos have appeared on television, some have not. If you have seen the videos before, try to see it with fresh eyes. After each video you will be asked to give a few responses. Note that there is a 10 second black screen before each video.

1. How much did you LIKE the video?
- a. I liked it very much.
  - b. ...

- c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. I did not like it very much.
2. How PLEASANT did you find the content of the video to be?
- a. Very pleasant
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very pleasant
3. How UNPLEASANT did you find the content of the video to be?
- a. Very unpleasant
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very unpleasant
4. How AROUSING (EXCITED/ANXIOUS) did you find the content of the video to be?
- a. Very arousing
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very arousing
5. Based on the content of this video how likely are you to support the advocacy group by DONATING MONEY?
- a. Very likely
  - b. ...
  - c. ...

- d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
6. Based on the content of this video how likely would you be to post this video on a social media site?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
7. Based on the content of this video how likely would you be to support the advocacy group by VOLUNTEERING?
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
8. Do you, as a potential target for this type of advertising, find it effective?
- a. Very effective
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very effective
9. Have you seen the video before?
- a. Yes
  - b. No

After watching and answering the previous questions concerning the videos, the participants will be asked to answer the following questions:

1. Please rank the following social media sites in the order you use the most often. That is with the most heavily used on top, and the least used on the bottom.
  - a. Twiter
  - b. Reddit (or 9gag)
  - c. Facebook
  - d. Tumblr
  - e. Pintrest
  - f. LinkedIn
  - g. Google +
  - h. YouTube
  - i. Flickr
  - j. Last.fm
  - k. LiveJournal
  - l. SoundCloud
  - m. ESPN Sports (i.e. Fantasy football)
2. If a FAMILY MEMBER were to post a video on a social media site similar to Facebook, how likely are you to watch it?
  - a. Extremely Likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely Unlikely
3. If a SPOUSE were to post a video on a social media site similar to Facebook, how likely are you to watch it?
  - a. Extremely Likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely Unlikely
4. If a CLASSMATE were to post a video on a social media site similar to Facebook, how likely are you to watch it?
  - a. Extremely Likely
  - b. ...
  - c. ...

- d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely Unlikely
5. If a CLOSE FRIEND were to post a video on a social media site similar to Facebook, how likely are you to watch it?
- a. Extremely Likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely Unlikely
6. If an AQUAINTANCE were to post a video on a social media site similar to Facebook, how likely are you to watch it?
- a. Extremely Likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Extremely Unlikely
7. When you receive a video from a friend who is MORE LIKE YOU, you generally:
- a. Watch it immediately
  - b. Watch it later
  - c. Forget to watch it
  - d. Intentionally do not watch it
8. When you receive a video from a friend who is DIFFERENT FROM YOU, you generally:
- a. Watch it immediately
  - b. Watch it later
  - c. Forget to watch it
  - d. Intentionally do not watch it
9. Where are you more likely to CLICK and WATCH video links? Please rank from most likely to least likely.
- a. Twiter



- b. Reddit
  - c. Facebook
  - d. Tumblr
  - e. Pintrest
  - f. Google +
  - g. YouTube
10. Estimate how frequently you forward/share *any* online content in a given week:
- a. Never
  - b. 1-2 times
  - c. 3-5 times
  - d. 6-10 times
  - e. 11-20 times
  - f. More than 20 times
11. Estimate how frequently you forward/share *only* viral videos in a given week:
- a. Never
  - b. 1-2 times
  - c. 3-5 times
  - d. 6-10 times
  - e. 11-20 times
  - f. More than 20 times

Assess the following statements and select the answer that most resembles how you would act.

1. "If I like a video, I will share it online with my friends."
  - a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
2. "If I see a video with a message that is important to me, I will share it online where ALL my friends can see it."
  - a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...

- g. ...
  - h. ...
  - i. Not very likely
3. "If I see a video with a message that is important to me, I will share it online where only SOME of my friends can see it."
- a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely

Some final questions:

1. Are you...
  - g. Male
  - h. Female
2. Please enter your age
  - a. ...

[Thank you message.]

## APPENDIX 6- Compiled Behavioural Intent Scale

1. Based on the content of this video how likely are you to support the advocacy group by DONATING MONEY?
  - a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
2. Based on the content of this video how likely would you be to post this video on a social media site?
  - a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely
3. Based on the content of this video how likely would you be to support the advocacy group by VOLUNTEERING?
  - a. Very likely
  - b. ...
  - c. ...
  - d. ...
  - e. ...
  - f. ...
  - g. ...
  - h. ...
  - i. Not very likely

## **APPENDIX 7- Debriefing Script**

Thank you for your participation in this study. The goal of the study was to examine how advocacy groups can more effectively use aversive evoking content as a manipulated variable. This is being examined in order to determine if it has any perceivable effects on a person's behavioural intentions. Do you have any questions regarding the study or anything you saw or were asked?

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