

HIV/AIDS messages as a spur for conversation among young South Africans?

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HIV/AIDS messages are often deliberately puzzling so as to increase the chance for them to be used as food for conversation. The South African health organisation 'loveLife,' for instance, uses messages that include complicated rhetorical expressions in their media campaigns, reasoning that those who find the messages puzzling and wonder about their meaning will be inclined to discuss the messages with their peers. In order to test the assumption that puzzlement about health messages is related to keenness to talk about these messages, structured interviews were held with 30 black learners, ages 15 to 19, from Limpopo Province, South Africa, about the messages of six HIV/AIDS posters and six HIV/AIDS radio advertisements from 'loveLife' or another South African health organisation. No support was found for the assumption that presenting a puzzling health message will contribute to engaging the recipients in discussion. The participants indicated that they were willing to discuss the themes addressed in either a poster or radio advertisement because they appreciated the message and felt that its content was relevant to them, rather than because the message was puzzling or difficult to understand. The participants' overall actual comprehension of the messages, however, proved to be strikingly low.

Keywords: communication strategies, health behaviour, HIV prevention, mass media, public health, radio advertisements, rhetoric, youth

Introduction

Young people constitute a crucial target group for behaviour-related HIV/AIDS interventions in South Africa, particularly females between ages 15 and 24 years, who account for 90% of all new HIV infections (UNAIDS, 2008). The impact of mass media campaigns then becomes a critical factor for consideration in terms of their effectiveness among crucial target groups (Coulson, 2004). Mass media campaigns have been widely used to create awareness and to change beliefs, attitudes and behavioural intentions as a contribution to the ultimate goal of changing behaviour. Pettifor, Rees, Steffenson, Hlongwa-Madikizela, MacPhail, Vermaak & Kleinschmidt (2004) argue that before people can change their sexual behaviour to protect themselves from HIV infection, key antecedents of behaviour change — such as knowledge, beliefs and attitudes — must change first.

The impact of mass media health campaigns is dependent on a large variety of parameters. Our inquiry starts from two main ideas. First, health messages can be considered as more effective if they are able to promote fruitful discussions among partners and peers, an idea for which ample support can be found in the literature (e.g. Rogers & Storey, 1987; Hornik & Yanovitzky, 2003; Hoeken, Swanepoel, Saal & Jansen, 2009). The outcomes of a recent study into the

effectiveness of 11 South African HIV/AIDS-communication programmes, carried out among 9 728 people between ages 16 and 55 years (South African Government Information, 2010) underline the importance of engaging in discussion about health themes with partners and peers. Among other things, it was found that discussing HIV testing with one's partner or friends is clearly related to the chance of ever getting tested for HIV. Of the participants who indicated that they had talked about an HIV test with their sexual partner or friends, 51% had had an HIV test in the last 12 months, while in the group of participants who had not discussed HIV testing with their partners or friends this portion was 22%. Furthermore, the likelihood of discussing HIV testing with one's partner proved to increase with exposure to more HIV/AIDS communication programmes. In this study, 37% of the participants who had been exposed to none of the campaigns included in the study indicated that they had discussed HIV testing with their sexual partner. In the group of participants who had been exposed to 9–11 of the messages this portion was 68% (South African Government Information, 2010).

The second idea rooted in this study is that for health messages to result in fruitful discussions they should be perceived as interesting and newsworthy. Different strategies can be used to that end, one of which is the use of

figures of speech, such as rhyme, alliteration, metaphor and puns, as strategic devices for messages to be perceived as more interesting or newsworthy, thus increasing the chance for them to be used as 'fodder for dialogue' (Hoeken *et al.*, 2009).

In what follows, we first discuss rhetorical devices and their possible impact on the effectiveness of health messages. Next, we discuss the goals, methods and results of an empirical study on the effects of recent HIV/AIDS posters and radio advertisements with or without rhetorical devices on the perceived and actual comprehension by the receiver, as well as appreciation and willingness to discuss the themes addressed in the messages.

Rhetorical devices in health messages

The importance of rhetorical language is reflected in many health campaigns whose messages increasingly display the creative strategies used by advertising agencies. Rhetorical strategies are particularly relevant in messages that are, or seem to be, commonly known to audiences, for example messages that promote safer sex or adherence to one sexual partner at a time. In these cases, purely informative messages often do not work well, as they are too evident. To be more persuasive and to raise awareness, messages have to be more than simply informative. And they may also need to be eye-catching, which justifies the use of creative design strategies.

Since Aristotle, rhetorical devices have been widely known and used as a powerful tool for persuasion (Ross, 1959). Scholars in various domains have studied the persuasive impact of rhetorical devices. A case in point is the domain of advertising, where written or verbal and visual design variables have been studied in relation to the process of persuasion (see McQuarrie & Mick, 1996 and 1999; Tom & Eves, 1999; Toncar & Munch, 2001; Phillips & McQuarrie, 2004; Maes & Schilperoord, 2008).

McQuarrie & Mick (1996) define rhetorical figures as expressions that deviate from the audiences' expectations in order to have an aesthetic or persuasive effect. As in many other classifications of rhetorical figures, they distinguish between two types of rhetorical devices: form devices (schemes) and meaning devices (tropes). Schemes, such as rhyme and alliteration, are superficial, aesthetically pleasing features. Schemes are based on excessive regularity of form, and do not change or mystify the meaning of the message, and hence do not require extra cognitive efforts. Tropes, such as metaphors and puns, on the other hand, invite more elaboration by the reader. Tropes function as little riddles, requiring extra cognitive effort to understand their meaning. For example, rhyme (a prototypical rhetorical scheme) is defined as a repetition of identical or similar sounds (or visual elements); a metaphor (a prototypical trope) is defined as a combination of seemingly unrelated domains (objects or concepts).

One way in which rhetorical devices (either verbal or visual) can advance the persuasive impact of advertisements is by providing the audience with a pleasurable experience when processing the message (cf. Hoeken *et al.*, 2009), or, as McQuarrie & Mick (1996, p. 427) call it, by giving the reader or listener "the pleasure of text." This in

turn may motivate people to use these messages in order to spark conversations. One example of the use of form-based rhetorical device in health messages is the use of rhyme to promote safer sex: for example, 'Be wise, condomise.' Such a rhetorical technique can be expected to make an HIV/AIDS message more eye-catching or attention-grabbing and attractive than a literal, rhyme-less message. Compare the following variations of a message with and without a rhetorical figure (again, a rhyme): 1) 'Don't be silly, put a condom on your willy'; and 2) 'Please be as wise as to use a condom when engaging in sexual activities, in order to avoid getting infected with HIV.'

Health messages can afford to be somewhat complex, thus they may include more meaning-based rhetorical figures. For example, 'loveLife' South Africa often uses complicated rhetorical figures in their media campaigns.² An example of a poster from loveLife's 2003 campaign is presented in Figure 1. The poster is meant to convey a fairly simple message (i.e. 'Please opt for long-lasting sexual relationships'), but it is shaped as a complicated combination of non-literal verbal and visual elements. The interpretation of the poster requires different types of high-level knowledge, for example about clothing logos (the typical Levi's brand logo), the ability to metaphorically relate the sustainability of this fashion clothing to the abstract notions of high-quality and long-lasting relationships, and the ability to interpret visual elements in terms of abstract notions.

The effect of puzzling rhetorical messages: two views

Using eye-catching, puzzling messages is a deliberate intervention strategy often used by loveLife. LoveLife messages are meant to provoke 12–17-year-olds to talk about HIV and AIDS, with a view to changing individuals' attitudes and ultimately their sexual behaviour: "It was critical to establish a programme which attracted young people and with which they wanted to identify and talk about. Underpinning the design construct of loveLife is a view that motivating young people to change sexual behaviour requires active experience of an alternative and positive lifestyle" (Harrison & Steinberg, 2002, pp. 3–4). For loveLife it is critical to establish a programme that attracts young people — a programme that youths want to identify with and talk about. The organisation aims at encouraging more open discussion about sexuality and the connection



Figure 1: An example of an HIV/AIDS message that includes a trope, produced by the loveLife South Africa 2003 campaign

between sexual behaviour and sexual health problems, such as HIV infection (Harrison & Steinberg, 2002). According to the editor of loveLife's magazine, *Uncut*, the loveLife campaigns are designed such as to deliberately confuse audiences so that they are triggered to talk about the messages:

"We want people to think about our posters. Either they understand it from first-hand or they get angry and say: I do not know what you are trying to say. At some point in our campaign, we will get people to wonder. This creates conversation between parents and children, dialogue between peers. That is exactly what we want to achieve, that people talk about HIV/AIDS and sex..." (Refilwe Africa, quoted in Hollemans, 2005).

The above view of the role of rhetoric markedly contrasts with another position that has been advanced about what causes conversation about HIV/AIDS messages. Hoeken *et al.* (2009) proposed a model of the necessary conditions holding up when rhetoric is to be used to spark conversation about an HIV/AIDS message. The model applies to the use of conceptual rhetorical figures, specifically tropes. The position that Hoeken *et al.* (2009) take is that tropes may spark conversation through their deviating forms. Tropes do not spell out the message entirely and literally; they contain gaps so that the audience has to invest extra cognitive effort to understand the message. In discussing the effect of tropes it is important to distinguish between conventional and novel tropes. Metaphor, one of the most widespread types of trope, may serve as an example. Metaphors like 'the head of a department' and 'the war of the immune system against the HIV virus' are conventional for most language-users in South Africa, whereas 'science is like a glacier' (in that it progresses slowly but steadily) may be regarded as a novel metaphor for most South Africans. There is evidence that conventional metaphors are processed in a similar fashion as literal expressions, and that they are comprehended as easily as their literal counterparts (Bowdle & Gentner, 2005). Novel metaphors, however, deviate from expectations and require additional processing on the part of the receiver. This is because the audience first has to discard the literal meaning as deviating before embarking on a search for a relevant metaphorical interpretation (cf. Hoeken *et al.*, 2009). It is such novel metaphors that loveLife often use to provoke discussion.

In the view of Hoeken *et al.* (2009), two types of conversations can be expected to be induced by novel metaphors (and other deviant tropes). First, by coming up with a smart interpretation, receivers may want to show their intelligence so as to strengthen their position in their social group. A crucial trigger for this type of conversation is that the speaker has the idea that he or she understands the message and is able to come up with a meaningful interpretation of the message. The logical counterpart of this is that less knowledgeable individuals will not feel they can come up with a meaningful interpretation and hence will not feel the need to explain and discuss the message. Thus, in demonstrating their knowledge, knowledgeable speakers assume that they understand the message while other members of their group do not. A second type

of conversation may be expected when people try to strengthen the cohesion of their social group by sharing their opinions on what is popular and what is not. Under this function the speaker assumes that members of the group (including him or herself) understand the message and agree on 'what's hot and what's not' about the messages, while assuming people outside the group do not understand the message (Hoeken *et al.*, 2009; see Ritson & Elliot, 1999).

The critical difference between the two views discussed above lies in the (perceived) comprehension of messages as a condition for the messages to stimulate conversation. According to the view of loveLife it is sufficient for a message to be puzzling and novel in order to stimulate conversation. Conversely, according to the view described by Hoeken *et al.* (2009), the conversational effect is instead crucially dependent on the message being understood — or rather perceived as understood. In their view 'perceived comprehension' is a necessary condition for the willingness of the recipients to discuss a message.

There are two additional reasons why comprehension is important in this context. First, it may be assumed that perceived comprehension is related to appreciation of the message. The perception of being able to understand a difficult message (e.g. to solve a puzzling trope, as in Figure 1) may result in self-congratulating thoughts, which in turn may result in higher appreciation of the message. Using cryptic rhetorical expressions or devices in advertisements which some receivers will think they understand while others don't, could thus prove effective in evoking conversations about both interpretation and appreciation of the message (cf. Hoeken *et al.*, 2009; Ritson & Elliot, 1999). Second, actual comprehension is crucial simply because incorrect interpretations of health messages can be dangerous. Someone who does not understand the paradox in a message like 'HIV loves skin on skin' may conclude on the basis of this message that skin on skin is something good — and thus that wearing condoms is dangerous. Recent studies indicate that many young people in sub-Saharan Africa lack an understanding of even basic HIV/AIDS messages. For example, Lillie, Pulerwitz & Curnow (2009) report the results of a large-scale study of the level of understanding of the basic 'ABC campaign' ingredients among Kenyan adolescents. Overall, only 48% fully comprehended the idea of sexual abstinence, 20% fully comprehended the importance of being faithful, and 7% fully comprehended the benefit of consistent condom use. The authors concluded that even these fairly easy messages need additional clarification and discussion if they are to be used in HIV/AIDS interventions.

According to studies carried out in South Africa in 2005 and in 2008, factual knowledge among South Africans about HIV and AIDS is rather poor, and young people are no exception in this respect. While, in 2005, about 65% of the sampled population and 66% of those in the age group 15–24 years scored well in a relatively simple test of HIV/AIDS knowledge,³ these percentages fell back in 2008 to about 44% and 42%, respectively (Shisana, Rehle, Simbayi, Zuma, Jooste, Pillay-van-Wyk *et al.*, 2009).

There is also evidence that deliberately using non-literal,

cryptic messages in health campaigns may have serious disadvantages. Referring to a 2003 study commissioned by loveLife which analysed one of its billboard campaigns, Singer (2005) stated that between 19% and 62% of students (depending on the advert) understood the campaign. Singer argued that the group most at risk of contracting HIV (poor and black students) had the most difficulty grasping the messages, and that in one case, a group of teens dangerously attributed an incorrect meaning to an advert by surmising 'You must pressurise, force the girl to have sex with you.' Zisser & Francis (2006, p. 190) also questioned the use of puzzling messages: "As the AIDS pandemic reaches catastrophic proportions, it seems dangerous and foolhardy to rely upon the chance understanding of such an influential and far-reaching campaign." Other researchers and critics have addressed the (mis)understanding of the loveLife messages by labelling them as 'stylish but cryptic,' 'abstract and nonsensical,' 'complex,' 'obscure' and "featuring abstract and seemingly nonsensical images and text" (Delate, 2001; Thomas, 2004; Singer, 2005; Parker, 2006).

In an explorative empirical study, Zisser & Francis (2006) asked 187 learners (black, white, coloured and Indian) from three urban secondary schools in Durban, KwaZulu-Natal Province, to respond to two familiar loveLife billboards from the 2005 campaign. The slogans on the billboards were 'Get attitude' and 'Born free.' The majority of the learners (74%) indicated having understood the slogans as they were intended by loveLife. However, the numbers of learners who answered that they had discussed the slogans with someone were distinctly smaller: 19% answered that they had discussed the billboards with their peers, 28% with their parents and 30% with their teachers (Zisser & Francis, 2006). Those authors studied people's actual comprehension of slogans rather than deliberately indirect messages, and they did not investigate a possible relation between perceived (mis) understanding and reported conversation behaviour. They suggested that "perhaps the ambiguous nature of the advertisements...influenced the youth's decision to speak with adults over their peers" (Zisser & Francis, 2006, p. 194). However, their study does not clearly answer the question of whether and how the cryptic nature of an HIV/AIDS message relates to what loveLife is most trying to accomplish: 'Talk about it.' It is this relation that the present study focuses on.

Goals of the study

The main goal of this study is to contribute to the discussion about the use of rhetorical figures, particularly tropes, in health messages by investigating whether young South Africans are likely to engage in discussions about HIV/AIDS messages because they feel these messages are puzzling or mysterious (as loveLife assumes) or because they think that they understand and appreciate the messages, as Hoeken *et al.* (2009) and Ritson & Elliot (1999) contend. Thus, we investigated to what extent young South Africans actually understood a set of HIV/AIDS messages they were presented with, and how their actual comprehension may relate to perceived comprehension and their appreciation of

these messages.

Methods

An exploratory study was conducted in which a group of 30 adolescents was interviewed. An embedded mixed-methods design was used. The study was based primarily on quantitative data; qualitative data played a supportive, secondary role (cf. Cresswell & Plano Clark, 2007). Fifteen participants were interviewed about six posters, and another group of 15 participants was interviewed about six radio advertisements. The sets of posters and radio advertisements each included HIV/AIDS messages with tropes, messages with schemes, and messages without explicit tropes or schemes. The interviews were structured and focused on the participants' actual comprehension as well as their perceived comprehension of the messages, on their appreciation of the messages, and on the extent of their willingness to discuss these messages with friends, peers or family.

Materials

Six posters and six radio advertisements were selected for the study. Three of the posters were produced by the loveLife campaign; three came from other South African health organisations. The radio advertisements were all produced by loveLife South Africa and had been previously broadcast by the South African Broadcasting Corporation (SABC). The HIV/AIDS message used was either present in a literal form ('Prevent HIV/AIDS, use a condom') or else displayed a rhetorical device, such as rhyme ('Be wise, condomise') or trope-based riddle ('Everyone he's slept with is sleeping with you. HIV loves sleeping around'). In some messages the rhetorical figure was quite obvious ('Don't be a fool, put a condom on your tool'), in other cases it was harder to decide whether or not a rhetorical figure was explicitly used ('This year I'll pass matric.... I just need to get through the next few years safe, safe, safe.... The next move.... Is mine').

Figures 1–3 present three of the posters used in this study. Box 1 gives the texts of the six posters; and Box 2 gives transcripts of the six radio advertisements. (Copies of all 12 messages [both the posters and the radio advertisements] are available at: <<http://www.hacalara.org/Project.html>>.)

Research instruments

The interview schedules were very similar in their questions about the posters and the radio advertisements. The questionnaire had four sections: section 1 consisted of 10 questions asking personal information (e.g. age, sex, first language); sections 2 and 3 included a combination of closed and open-ended questions relating to participants' actual comprehension, perceived comprehension, appreciation, and willingness to discuss the messages presented in the posters and radio advertisements. In section 4, general questions were asked about HIV and AIDS, voluntary counselling and testing for HIV (VCT), and sexual relations; in this section the participants were given the option of answering or not answering the questions.

Participants

The participants were 30 learners from Flora Park Comprehensive High School in Polokwane, Limpopo Province, a school with more than 500 learners. The school was selected for this exploratory study because it is an English-medium school, which allowed for the elimination of complexities involved in the translation of different languages. This ensured that all the participants could understand and answer questions in English, the language used in the radio advertisements and posters. However, all participants were first-language Sepedi speakers (Northern Sotho). For each of the two parts of the study (radio advertisements and posters), 15 different participants (seven males and eight females) were randomly selected from Grades 9 to 12. Their age range was 15 to 19 years.

Procedures

Permission was sought from the school principal and was granted on condition that the interviews would be conducted

immediately after school. The learners who were willing to participate were approached individually and taken to a quiet venue. They were given verbal instructions before and during the interview, while the interviewer/researcher had a printed version of the interview schedule. The participants were asked for permission to record the interview. The



Figure 2: An HIV/AIDS message that includes a scheme (i.e. the rhyme ‘fool/ tool’), produced by the Ndlovu Clinic in Elandsdoorn, Mpumalanga Province, South Africa



Figure 3: An HIV/AIDS message that includes neither a clear trope nor scheme (edited by the researchers from an original poster produced by the National Department of Health, South Africa)

Box 1: The texts and key points of the six posters presented to one set of participants

Poster text	Key points
1. “Love 100% pure made to last. Thethajunction 0800-121-900, Talk about it. loveLife.”	<ul style="list-style-type: none"> • High-quality love relationships will last.
2. “Is this your relationship? Thethajunction 0800-121-900, Talk about it. loveLife.”	<ul style="list-style-type: none"> • So don’t get involved in casual relationships (i.e. sleeping around). • Is your relationship so risky that it puts you in danger?
3 “Be wise condomise.”	<ul style="list-style-type: none"> • Protect yourself by using a condom.
4 “Don’t be a fool, put a condom on your tool.”	<ul style="list-style-type: none"> • Be wise/careful; use a condom/protection when having sex (makes two points). • Don’t be foolish.
5 “Face it. Teen pregnancy increases risk of HIV. Thethajunction 0800-121-900, Talk about it. loveLife.”	<ul style="list-style-type: none"> • Use a condom when having sex (see poster 3). • Having unsafe sex as a teenager (because you want to get pregnant) may lead to HIV (makes two points).
6 “Prevent HIV/AIDS. Use a condom. Condoms are available at clinics, shops and pharmacies.”	<ul style="list-style-type: none"> • Prevent HIV/AIDS by using condoms. • For free condoms, go to the clinic.

Box 2: The transcripts and key points of the radio advertisements presented to one set of participants (M = male voice; F = female voice)

Radio advertisement	Key points
<p>1. M: If your boyfriend refuses to wear a condom, do you really think he loves you? HIV loves skin on skin, skin on skin, skin on skin. F: We are born free. M: Brought to you by <i>loveLife</i> and SABC.</p>	<ul style="list-style-type: none"> • Real love implies wearing a condom, because not wearing a condom may result in HIV or AIDS (makes two points).
<p>2. M: Your boyfriend may make you feel safe, but everyone he's slept with is sleeping with you. HIV loves sleeping around, loves sleeping around. F: We are born free. M: Brought to you by <i>loveLife</i> and SABC.</p>	<ul style="list-style-type: none"> • Multiple relationships increase the chance of HIV infection. • Even if you have only one partner whom you trust, he/she may, in fact, represent multiple relationships.
<p>3. F1: I've heard it all before. If you love me you'll trust me. F2: Sleeping with me will prove that you love me. F1: If you really care, you'll understand, you'll understand, you'll understand, you'll understand. Prove your love, your love, protect me. M: HIV. Face it. Brought to you by <i>loveLife</i> and SABC.</p>	<ul style="list-style-type: none"> • Some say it is expected that you prove your love to your partner by sleeping with him/her. • But in reality: You prove your love by protecting your partner.
<p>4. F1: I've heard it all before. I've only slept with one person, so I can't be... F2: Why are you worried, don't you believe me? F1: Look at me. Do you really think I am positive? F2: It's 'no' til we know. M: HIV. Face it. Brought to you by <i>loveLife</i> and SABC.</p>	<ul style="list-style-type: none"> • People say that you should trust the other because: <ul style="list-style-type: none"> – he/she tells you that you are the only one, and/or – he/she looks healthy. • But in reality: Don't believe anyone but say 'no' until you know each others' HIV status.
<p>5. F: I've heard it all before. Having sex will make the bond between us stronger. It will show just how much you love me. If you don't, he'll leave you for another girl, he'll leave you for another girl, another girl. You can't pressure me into sex. M: HIV. Face it. Brought to you by <i>loveLife</i> and SABC.</p>	<ul style="list-style-type: none"> • People say that you have to have sex because: <ul style="list-style-type: none"> – sex tightens the bond, and/or – sex proves that you love your partner, and/or – sex is necessary to prevent your partner from leaving you. • But in reality: You should resist the pressure and only have sex if you are sure that you both are not HIV-infected and that you really want to do it.
<p>6. F: This year I'll pass matric and strive to reach my dreams. M: As a young person today you have a fifty-percent chance of getting HIV. F: But most infections happen soon after leaving school. M: Your biggest risk is within five years of leaving school. F: I just need to get through the next few years safe, safe, safe. F: I know. M: The next move. F: The next move. M: Is yours. F: Is mine. M: The love-life generation. F: Will you be part of it?</p>	<ul style="list-style-type: none"> • It is important to live your life safely, especially once you have left school. • Your safety will depend on what you do with your life.

interview began with an introduction from the interviewer/researcher (either the first or second author) about the goal, procedure and duration of the interview. Next, the four sections of the interview scheme were followed. The participants answered questions about their personal situation (section 1) and informed the interviewer of their knowledge of posters/radio advertisements about HIV/AIDS. Then, they were exposed to the materials (either the six posters or the six radio advertisements), one by one. The radio advertisements were played on a laptop computer connected to loudspeakers. The learners could request a replay of these messages whenever they felt the need. Next, questions were asked about the messages (sections 2 and 3) as

well as a selection of general questions (section 4). The participants did not have to write down any answers; the interviewers took notes, specifically for the closed questions. Each interview lasted 1.5–2 hours.

Data processing

The audio recordings of the interviews were literally transcribed. The data analysis was structured following the four variables that this study focused on: actual comprehension, perceived comprehension, appreciation, and willingness to discuss the messages.

'Actual comprehension' was measured on the basis of the answers to the question 'Please briefly describe

the message in this poster/radio advertisement.’ In order to quantify the answers to this open question, the four authors discussed the meanings of the 12 messages and determined the key points of each message, taking into account relevant loveLife documents. The results of these discussions are presented in the second column of Box 1 (poster texts) and Box 2 (radio advertisement transcripts). After having agreed on the core ingredients of the messages, the authors independently read and scored the correctness of the answers given by the learners. Scores were given for the interpretation by each participant of the six posters or the six radio advertisements, ranging from ‘2’ (answer completely correct), ‘1’ (answer partially correct), to ‘0’ (answer completely incorrect, missing, or including only a literal repetition of the whole or part of the message). For 10 of the 12 messages, the reliability of the scores by the four raters was found to be acceptable (i.e. higher than 0.70); hence the raters’ mean scores for the participants’ interpretations of these messages were considered adequate indications of actual comprehension. For the other two of the 12 messages the reliability of the scores was only acceptable (or higher than 0.70) after ratings by two assessors were left out; here, the mean scores of the other two raters only were considered as adequate measures of actual comprehension.

‘Perceived comprehension’ was measured by asking participants to rank the six messages they were presented with, from easiest to most difficult to comprehend. Next the participants were asked to explain why they had ranked the messages the way they had. The ranking results were translated into scores by giving 6 points to a message whenever it was ranked as the easiest one to understand, 5 points when it was ranked second easiest, etc. After this, average scores were calculated for each of the messages.

‘Appreciation’ was measured by asking participants to rank the messages from the one they liked most to the one they liked least (called ‘Like-scores’), and next to rank the messages from the one that appealed to them most to one that appealed to them least (‘Appeal-scores’). After this, the participants were asked to explain why they had ranked each message the way they had. The results were quantified following the same procedure as for scoring perceived comprehension.

‘Willingness to discuss the messages’ was measured using the following open-ended questions: ‘Are there any posters/radio advertisements that you would discuss with your friends, parents or guardians, *because you do not understand them*? If yes, which are the posters/radio messages you would like to discuss?’ and ‘Are there any posters/radio advertisements that you would discuss with your friends, parents or guardians, *because you like them very much*? If yes, which are the posters/radio messages you would like to discuss?’ The result was two scores for each message denoting the number of times the participants had indicated that they would discuss that message: 1) because they did not understand it (from here: ‘Discussed because not understood’), and 2) because they liked it a lot (from here: ‘Discussed because appreciated’).

Results

The results are focused on the quantitative analysis of the data; the findings of the qualitative analysis of the answers will be used to illustrate the quantitative outcomes. First, the scores of the participants’ actual comprehension, perceived comprehension and appreciation of the messages are discussed, followed by correlations between these variables, and then the outcomes for the measure of their willingness to discuss the messages.

Actual comprehension

We first sought to find out to what extent the participants understood the HIV/AIDS messages in the set of posters or radio advertisements they were presented with. The results are presented in Tables 1 and 2, respectively. Overall, the participants’ actual comprehension of the messages was low. For the set of poster messages the mean scores ranged from 0.10 to 1.73, on a scale from 0 to 2, with an average of 0.89. For the radio advertisements the mean scores ranged from 0.42 to 1.12, with an average of 0.84.

No clear relation was found between the measures of actual comprehension and the messages’ use of rhetorical figures, neither in the quantitative data nor in the qualitative responses. For example, a message including a trope (e.g. ‘HIV loves skin on skin’), which may be expected to be difficult to understand, proved to be the radio advertisement that the participants rated as easiest to understand (average score 1.12) (Table 2). Possibly, this particular trope was not novel enough to raise specific comprehension problems for the participants. For example, one learner commented: *‘It is easy; we just know that skin on skin is not the best way to go, so I would say it is easy [to understand].’*

Table 1: Measure of the participants’ actual comprehension of the poster messages as determined by the raters (minimum possible score: 0; maximum possible score: 2) (*n* = 15 youths)

Poster message	Actual comprehension
1: Love 100% pure, made to last.	0.10
2: Is this your relationship?	0.37
3: Be wise, condomise.	1.53
4: Don’t be a fool, put a condom on your tool.	1.73
5: Face it: Teen pregnancy increases risk of HIV.	0.85
6: Prevent HIV/AIDS. Use a condom.	0.88

Table 2: Measure of the participants’ actual comprehension of the radio advertisements as determined by the raters (minimum possible score: 0; maximum possible score: 2) (*n* = 15 youths)

Radio message	Actual comprehension
1: ...HIV loves skin on skin...	1.12
2: ...HIV loves sleeping around...	0.80
3: ...Prove your love; protect me...	0.42
4: ...It’s ‘no’ til we know...	1.10
5: ...You can’t pressure me into sex...	0.87
6: ...This year I’ll pass matric...	0.72

We all know what happens when you go for skin on skin; everyone knows that if they do not use a condom they will be infected.'

The posters that included a scheme (e.g. rhymes: 'Be wise, condomise' and 'Don't be a fool, put a condom on your tool') were rated as easiest to understand (Table 1). The radio message 'Prove your love, protect me,' however, which also included a scheme (the alliteration 'prove/protect') but no trope, was assessed as the most difficult. One participant said, *'I do not understand the part that says protect me. I think it says...I cannot explain it'*; another learner mistakenly thought the message meant that *'having sex with him means that you will be proving your love for him.'*

Perceived comprehension and appreciation

The results for perceived comprehension and appreciation of the messages in the sets of posters and radio advertisements are given in Tables 3 and 4, respectively.

The participants' scores contradict the assumption that cryptic messages will be perceived as comparatively difficult or attractive. Messages such as 'Love 100% pure, made to last,' 'Teen pregnancy increases risk of HIV,' 'HIV loves skin on skin,' and 'HIV loves sleeping around' were not systematically rated as more difficult to understand or as more attractive than the other messages. For instance, the message 'HIV loves sleeping around' was assessed by one participant as *'straightforward and easy to understand'* and by another as *'clear.'* A third participant, however, called this message *'kind of confusing'* and still another one said it was *'not that easy to understand.'* When asked to compare the attractiveness of this radio message to the others, its perceived difficulty to understand often led to a negative assessment. One participant ranked it as least attractive because *'It is good, but, eish, you don't feel it. It should be*

a little bit longer so that you can concentrate. It passes fast. I'm confused now.' Another learner said, *'I put it second last because the message is not loud and clear.'* Still another remarked, *'I would say I like it, but it is difficult to understand quickly because the message has to be easy to understand. If it is difficult no one will take it seriously.'*

Correlations between actual comprehension, perceived comprehension and attractiveness

Table 5 presents the correlations that were found between the scores for the variables 'actual comprehension,' 'perceived comprehension' and 'attractiveness' (defined as the Like-score and Appeal-score), for all 12 messages taken together.

Table 5 shows that three significant correlations ($p < 0.05$) were found. As expected, a positive correlation was found between the Like-scores and the Appeal-scores ($r = 0.78$); the more the participants liked a message the more appealing they found that message, indicating that both variables basically measured the same attitude (appreciation). Positive correlations were also found between perceived comprehension and the measure of appreciation (Like-scores and Appeal-scores: $r = 0.59$ and $r = 0.75$, respectively). Apparently, the easier the participants found a message to understand, the more they appreciated that message. One of the learners, for instance, said the radio message that appealed to her most was 'This year I'll pass matric,' because: *'The message is very loud and clear and is more of what is happening to young children now. The message is understandable.'* When asked how they liked the radio message 'You can't pressure me into sex,' the following remarks were made by different learners: *'It is understandable if you are hearing it, maybe from the melody, from anywhere'; 'You can still understand where it is going and where it is from'; 'It also spreads a relevant message';*

Table 3: Measure of the participants' perceived comprehension and appreciation (Like-scores and Appeal-scores) of the poster texts as indicated by the participants when asked to order them from easiest to most difficult to comprehend and from best liked/most appealing to least liked/least appealing (minimum possible score: 1; maximum possible score: 6) ($n = 15$ youths)

Poster message	Perceived comprehension	Like-score	Appeal-score
1: Love 100% pure, made to last.	2.00	3.20	2.93
2: Is this your relationship?	2.53	2.47	2.67
3: Be wise, condomise.	2.87	3.53	3.73
4: Don't be a fool, put a condom on your tool.	3.60	2.87	2.60
5: Face it: Teen pregnancy increases risk of HIV.	4.80	4.33	4.53
6: Prevent HIV/AIDS. Use a condom.	5.20	4.60	4.53

Table 4: Measure of the participants' perceived comprehension and appreciation (Like-scores and Appeal-scores) of the radio advertisements as indicated by the participants when asked to order them from easiest to most difficult to comprehend and from best liked/most appealing to least liked/least appealing (minimum possible score: 1; maximum possible score: 6) ($n = 15$ youths)

Radio message	Perceived comprehension	Like-score	Appeal-score
1: ...HIV loves skin on skin...	3.87	2.67	2.93
2: ...HIV loves sleeping around...	2.73	2.80	3.20
3: ...Prove your love; protect me...	2.93	3.53	3.06
4: ...It's no 'til we know...	3.60	3.63	3.53
5: ...You can't pressure me into sex...	2.27	3.53	4.47
6: ...This year I'll pass matric...	3.60	4.80	3.80

and *'I actually love it because it is understandable.'*

The correlation between perceived comprehension and actual understanding, however, was not significant ($r = 0.35$). A learner's own perception of his or her level of understanding of HIV/AIDS messages such as the ones in this study can hardly be considered an adequate predictor of the actual level of understanding. One of the participants, for instance, felt quite confident about his understanding of the message 'Prove your love, protect me.' When asked about his perceived comprehension he assessed this message as *'really easy to understand.'* His actual comprehension of the message, however, proved to be quite problematic. When asked what this message was trying to tell him, he said: *'I think what they are basically saying is before you get involved in a relationship you should consider yourself before you can consider the person you are in love with.... So many people would like, try, they make themselves flexible, so they lose their backbone, because like they try to accommodate others and leave themselves outside.'*

Willingness to discuss the messages

Tables 6 and 7 present the results for measure of the participants' willingness to discuss the sets of poster and radio messages, respectively.

Overall, the attractiveness of a message proved to be a stronger reason for discussing it than the perceived difficulty of understanding it. When the participants were asked whether they would discuss each poster or radio advertisement (with friends, parents, or guardians) because they found it attractive, a positive reaction was given 53 times (26 for the posters and 27 for the radio advertisements) out of a possible $2 \times 15 \times 6 = 180$ times. The total number of times the participants indicated that they would discuss a message because they found it difficult to understand was 32 (13 for the posters and 19 for the radio advertisements) also out of a possible $2 \times 15 \times 6 = 180$ times.

When analysing the explanations the participants gave to their valuation of particular messages as possible food for conversation, the perceived relevance of the message's content in view of the personal circumstances of the participant turned out to be an important reason for the individual's degree of appreciation and hence willingness to discuss the message. The poster that was mentioned most, especially by the female participants, as potential food for conversation because it was appreciated was 'Face it: Teen pregnancy increases risk of HIV.' The radio advertisement mentioned most, especially by learners in grade 12, was 'This year

I'll pass matric.' One participant said: *'[It says] that I am there, I am doing matric now.... It is relevant and true. It is happening.'* Another participant made the following general remark: *'We talk about these things freely. Like in our class. I think as teenagers, we talk about challenges that go hand in hand with HIV. There are some people whom you just feel free to talk to. Not necessarily about radio messages but about the challenges that we have just talked about.'*

Discussion and conclusions

This study aimed at exploring reactions to HIV/AIDS posters and radio advertisements in the target group of young South African learners, in order to contribute to the discussion about the use of rhetorical devices (particularly tropes) in health messages. No support was found for the assumption that a lack of (actual or perceived) comprehension of HIV/AIDS messages will stimulate conversations about the issues addressed in these messages. The attractiveness of a message and the personal relevance of its content seemed to be stronger reasons for discussing a message with friends or family than its perceived difficulty to understand.

This general finding of the research is in agreement with results reported in a study carried out by Jansen & Janssen (2010) on the effects on South African students of cryptically worded loveLife billboards. Those authors presented 149 first-year students at the University of Limpopo with five billboards from loveLife's 'HIV: Face It' 2006 campaign. As in this study, they observed a considerable gap between perceived comprehension and actual comprehension of the billboards: the students clearly overestimated what they had understood. Jansen & Janssen (2010) also found a positive association between the students' perceived understanding and appreciation for the billboards and their inclination to discuss the messages with others.

As with the findings of Jansen & Janssen (2010), the findings of the present study seem to contradict loveLife's supposition that the cryptic nature of their billboard messages will lead to discussions and debate. Instead, the assumption described by Hoeken *et al.* (2009) is better supported: that the better young people think they understand HIV/AIDS messages, the greater the chance that they will appreciate these messages and the higher the probability they will engage in discussions about HIV and AIDS.

The participants' overall actual comprehension of the

Table 5: Correlations of variables as measured per message (bold font denotes significant correlations) ($n = 12$ HIV/AIDS messages)

	Actual comprehension	Perceived comprehension	Like-score	Appeal-score
Actual comprehension	1	$r = 0.35$ $p = 0.26$	$r = -0.03$ $p = 0.93$	$r = 0.07$ $p = 0.82$
Perceived comprehension		1	$r = 0.59$ $p = 0.04$	$r = 0.75$ $p = 0.005$
Like-score			1	$r = 0.78$ $p = 0.003$
Appeal-score				1

Table 6: Measure of the participants' willingness to discuss the poster messages by tallying the number of times each message was mentioned (minimum possible score: 0; maximum possible score: 15) ($n = 15$ youths)

Poster message	Discussed because not understood	Discussed because appreciated
1: Love 100% pure, made to last.	5	4
2: Is this your relationship?	6	5
3: Be wise, condomise.	0	4
4: Don't be a fool, put a condom on your tool.	0	4
5: Face it: Teen pregnancy increases risk of HIV.	1	6
6: Prevent HIV/AIDS. Use a condom.	1	3

Table 7: Measure of the participants' willingness to discuss the radio messages by tallying the number of times each message was mentioned (minimum possible score: 0; maximum possible score: 15) ($n = 15$ youths)

Radio message	Discussed because not understood	Discussed because appreciated
1: ...HIV loves skin on skin...	2	1
2: ...HIV loves sleeping around...	4	3
3: ...Prove your love; protect me...	7	3
4: ...It's 'no' til we know...	2	6
5: ...You can't pressure me into sex...	2	3
6: ...This year I'll pass matric...	2	11

messages was strikingly low. For eight of the 12 messages used in this study, the mean score measuring the participants' comprehension was lower than 50% of the possible maximum. Only for two messages, 'Be wise, condomise' and 'Don't be a fool, put a condom on your tool,' a mean comprehension score higher than 75% of the possible maximum was found. Furthermore, no systematic effects of the use of rhetorical devices on actual comprehension were found. Some messages that included a trope or a scheme proved to be relatively easy to understand, while other such messages turned out to be quite difficult.

In evaluating the results, one should be aware of the possible limitations of the study. First, the number of participants was relatively low. Second, some of the participants did not answer all the questions because some of the words used in the HIV/AIDS messages turned out to be too complicated for the second-language English speakers. In a follow-up study consideration will be given to the possible influence of the language used in the messages as well as in the interviews. Third, using existing HIV/AIDS messages had the advantage of contributing to the external, ecological validity of this study. The internal validity, however, would have been better served by a more experimental manipulation of the presence or absence of rhetorical figures. A next study in this project will therefore employ messages with or without tropes and schemes so as to be better able to attribute the effects of the messages to the presence or absence of these rhetorical figures. Finally, it should be noted that reported willingness to discuss a message does not necessarily predict actual behaviour in conversations. In the next study, other more direct measures for this behaviour will be considered.

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Notes

- Billboards displaying such schematic rhetorical messages can be found in Elandsdoorn, Mpumalanga Province, near a clinic run by Dr Tempelman (see: <www.ndlovu.com/gallery.html> [Accessed 15 March 2010]).
- 'LoveLife' makes use of various media (radio, television, billboards, magazines, newspapers and posters) and has issued a number of vibrant and sometimes controversial HIV-prevention media campaigns targeted at teenagers with the aim of contributing to behaviour change regarding HIV.
- The knowledge test consisted of two parts. In the first part the participants were asked two questions about HIV prevention (with 'yes/no' answer options): 'To prevent HIV infection, a condom must be used for every round of sex' and 'One can reduce the risk of HIV by having fewer sexual partners.' In the second part the participants were presented with four statements gauging myths and misconceptions about AIDS: 'There is a cure for AIDS'; 'AIDS is caused by witchcraft'; 'HIV causes AIDS'; and 'AIDS is cured by sex with a virgin.' The participants were considered as passing the test if they answered correctly either the two questions in the first part or the four questions in the second part, or both parts (see Shisana *et al.*, 2009).

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