

Verbal, Heart Rate, and Skin Conductance Responses of
Males and Females to Antimale and Antifemale Cartoons

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Males' and females' verbal, heart rate, and skin conductance responses were measured while viewing antimale and antifemale, one-frame sexual cartoons. Verbally, the males preferred both types of cartoons more than the females. However, heart rate and SCR did not show this difference. Additionally, SCR indicated that both sexes had a higher reaction to the antimale cartoons. Apparently cartoons do not accurately reflect their similar internal reactions.

Male and female response differences to humor have recently come under investigation. It is frequently assumed that jokes heard in a barbershop or cartoons seen in a men's magazine are different than those heard in a beauty salon or seen in a women's magazine. Malpass and Fitzpatrick (1959) conducted one of the first studies to deal directly with sex differences in rating of verbal jokes and one-frame cartoons. One major finding was that males rate the sexual cartoons as significantly more humorous than females. The work done by Groch (1974) and Terry and Ertle (1974) also found male preference for sexual humor.

Using a different procedure Brodzinsky and Rebien (1975) asked males and females to make up punch lines or to create cartoons dealing with a sexual theme. It was found that males perform better in both areas, probably as a result of greater exposure to sexual situations.

Most of these studies obtained their sexual cartoons from magazines such as Playboy. Additionally, cartoon selection was conducted by the experimenter or a panel of judges who were often male. Some experiments gave no information concerning cartoon selection at all. Therefore, it would seem that male oriented, sexual cartoons probably were chosen and these might depict females in a derogatory manner. Terry and Ertle (1974) mention this possibility. This could account for the conclusion that males like sexual cartoons better than females.

Support for this idea comes from a study by La Fave, Haddad, and Marshall (1974). Their study focused on identification groups as portrayed by humor. Indeed, subjects prefer humor depicting someone else's identification group as the butt of the joke rather than their own. O'Connell (1962) also showed that males prefer overt hostile humor against women, while women prefer subtle hostile humor against men. Finally, Priest and Wilhelm (1974) showed that males prefer antifemale jokes while females prefer antimale jokes.

As a result of these previous studies, one would expect that males would prefer antifemale sexual cartoons, with females as the butt of the joke, rather than antimale cartoons. Females should prefer the opposite. This idea should also apply to physiological indicators of emotion. Cartoons which are funnier or more arousing should produce elevations in heart rate, and increases in skin conductance response. There may also be a correlation between physiological responses and verbal responses to the cartoons. A previous pilot study bore out this possibility.

METHOD

Summary of Design

This experiment was conducted as a 2X2X4 factorial design with

sex of the subject as the first factor, type of cartoon (antimale or antifemale) as the second factor, and time samples (0 sec., 5 sec., 10 sec., and 15 sec.) as the third factor. Type of cartoon and time samples are both repeated measures.

A total of 24 sexual cartoons were obtained from current sex cartoon magazines. A panel of eight judges, four male and four female, rated the cartoons as either very antimale, moderately antimale, neutral, moderately antifemale, or very antifemale. This depended upon which sex the punchline exploited, nutdown, or belittled. Twelve cartoons were selected based on the unanimous agreement of the judges as to their antimale or antifemale characteristics. (6 anti-male cartoons and 6 antifemale cartoons were selected, from a total of 25 cartoons.) Of the remaining 12 cartoons, 6 were sexually neutral and 6 were introductory cartoons.

A total of 40 subjects, 20 males and 20 females, participated in the study. All were undergraduate students who received extra credit in their introductory psychology class.

To record heart rate and SCR, the subject was attached to electrodes and then placed in a chair opposite a screen. The cartoons were remotely controlled from the experimenter's room so that the subjects could be alone as they were presented on the screen.

A Marco-Biosystems Physiograph chart recorder recorded heart rate using a biotachometer coupler. SCR were measured via a skin resistance coupler. The male experimenter was in the subject's room only during the beginning of the session to explain the procedure and to attach the electrodes.

The cartoons were randomly arranged in an alternating sequence with empty frames. The subject read the cartoon but did not verbally

give a rating until the following empty frame was shown. This procedure kept the physiological response to the cartoon from being influenced by overt verbal behavior.

The subjects responded to the cartoons using a seven point scale. The choices were very distasteful, moderately distasteful, slightly distasteful, neutral, slightly funny, moderately funny, or very funny. The subject called out the rating for each cartoon.

The first 6 introductory cartoons, 2 antimale, 2 neutral, and 2 antifemale, were used to familiarize the subject with the procedure. The remaining 18 cartoons included 6 which were antimale, 6 which were neutral, and 6 which were antifemale. The subject was told the cartoons were of a sexual nature and asked to respond according to the scale. The antimale and antifemale characteristics of the cartoons were not mentioned. Each of the seven verbal responses was given a numerical value from 1-7 with "very distasteful" receiving a rating of 1 and "very funny" receiving a rating of 7. The ratings were averaged across the six cartoons in a class (antimale or antifemale) for each subject. Heart rate and SCR were time sampled at the beginning of each cartoon and once every 5 sec. during the cartoon for a 15 sec. period.

After all 24 cartoons were shown, a full debriefing followed.

RESULTS

Verbal Rating Data

No significant difference between the ratings of the antimale cartoons and the antifemale cartoons was found. However, males rated both types of cartoons significantly funnier than the females. ($F=8.137$; $df=1/38$; $p<.007$)

Physiological Data

No sex factor or cartoon factor differences were noted for the

heart rate data, but heart rate did show a significant time effect with a dip at 5 sec. ($F=2.857; df=3/114; p \leq .04$).

Insert Figure 1 About Here

Additionally, heart rate showed a significant multiple correlation ($R=.495; p \leq .03$) with the verbal rating of the antimale cartoons. The antifemale cartoons did not show this correlation ($R=.397; p \leq .18$).

The SCR data provided the most insight into male and female physiological response patterns. Again no sex differences emerged but all of the subjects did respond with a higher SCR to the antimale cartoons than the antifemale cartoon. ($F=7.735; df=1/38; p \leq .008$). Additionally, the time factor showed that the SCR for both types of cartoons peaked at 10 sec., indicating the most physiological arousal at this point.

Insert Figure 2 About Here

Finally, the Cartoon Type X Time Sample interaction was significant. ($F=3.248; df=3/114; p \leq .025$) The antimale cartoons produced a higher level of SCR across all time periods with a slight peak at 10 sec. The antifemale cartoons produced a greater change of response, also peaking at 10 sec. Coinciding with heart rate data, SCR data correlated with the rating data yielded a multiple R that was significant for antimale cartoons but not for antifemale cartoons (antimale $R=.539; p \leq .015$, antifemale $R=.446; p \leq .09$).

DISCUSSION

Even though the sexual cartoons were controlled for the sex that was the butt of the joke, males still verbally liked sexual cartoons more than females. This study also utilized a two-sided scale that allowed for a negative or positive response to the cartoons. None of the previous studies had this provision but instead employed a scale

ranging from not funny or neutral to very funny. One study used the confusing term "unfunny" to denote something worse than neutral. Distasteful seemed a better term to use in order to give the subject a more complete range of response. Even with this improvement, males still preferred the sexual cartoons. This supports the work of Malpass and Fitzpatrick (1959), Groch (1974), and Terry and Ertle (1974).

Although La Fave, Haddad, and Marshall (1974) showed that people identify with groups and do not like criticism or humor against their identification group, the notion does not apparently apply to humor of a sexual nature. It becomes obvious when compared to studies demonstrating that with sex removed, males enjoy humor against females but not against themselves, while females enjoy the opposite, O'Connell (1962), Priest and Wilhelm (1974). At least verbally, sex in cartoons adds a new dimension which appeals to male subjects but not to female subjects. This holds true no matter which sex the cartoon is exploiting.

The physiological data offers a marked contrast to the verbal results. Heart rate and SCR yielded information which showed that males and females do not physiologically differ in their reaction to the sexual cartoons. SCR also showed that the males and females had a higher physiological reaction to the antimale cartoons than to anti-female cartoons. Both types of cartoons had a peak reaction at 10 Sec. into the cartoon.

Verbal reports do not apparently agree with physiological data. Perhaps males rated the sexual cartoons as more humorous because they are allowed a freer expression of their responses than females. Out of embarrassment or social expectations, females would censor their true responses to the cartoons. Thus, the male experimenter may have inhibited verbal response by females. Another explanation could be

that males feel the need to exaggerate their responses about sexual material. This seems consistent with the idea that males are sexual aggressors while women are passive, and therefore, women would not engage in this type of exaggeration. None the less, both sexes showed increased SCR to sexual cartoons and greater response to the antimale cartoons than the antifemale ones. This could be due to less exposure to this type of humor.

These explanations seem in conflict with today's equalization of the sexes. Apparently there is still room for improvement because the verbal data still indicates a sexual difference which confirms the work done 20 years ago by Malpass and Fitzpatrick (1959).

Future research needs to work more closely on defining the relationship between physiological processes and verbal reports of reactions. It would seem that subjects modify and distort their reactions to stimuli, not intentionally but rather unconsciously. For example, this experiment could very well have obtained different results had the experimenter been female. The males might have been more reserved and the females might have been more expressive. At any rate, males' and females' internal reactions to sexual cartoons have much more in common than verbal reports indicate.

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Figure 1.

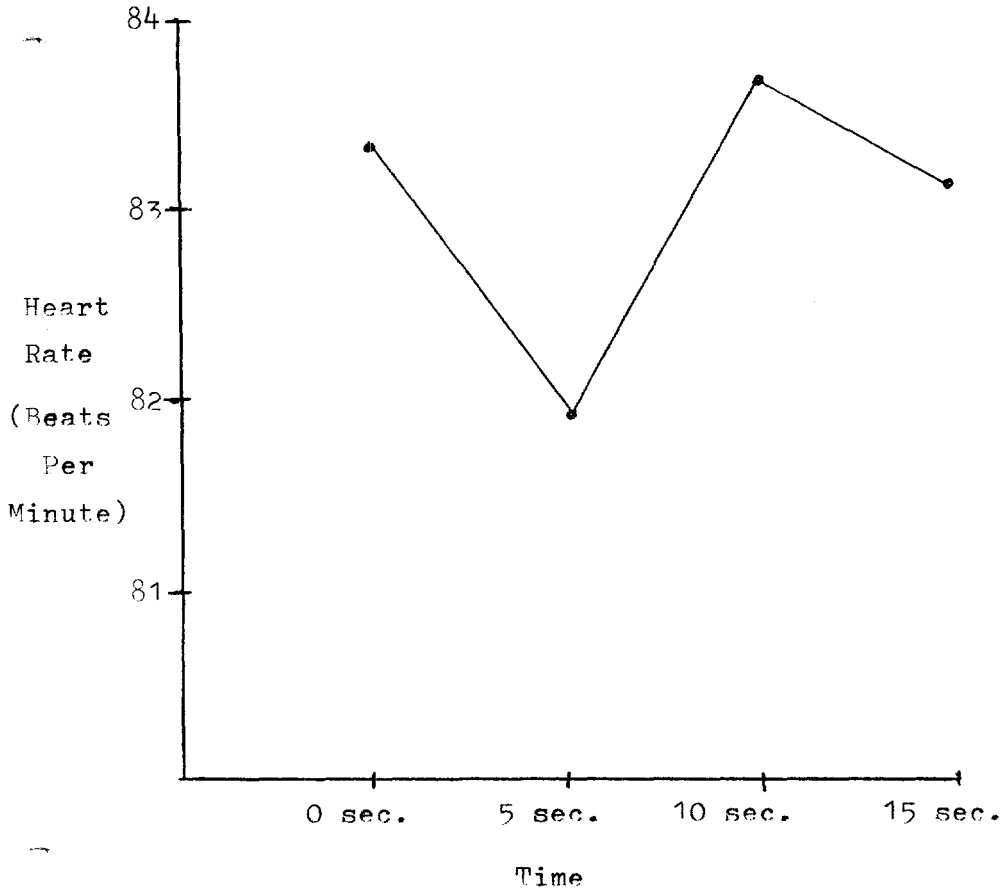


Figure 2.

