
The Gender Antonym Replacement Technique is a computer-assisted aid to determine whether a written statement about the condition of one sex does in fact speak to problems encountered principally by that sex, rather than to problems common to both sexes. The technique involves deleting gender-related terms in a passage, substituting an antonym for each of them, and then comparing the validity of the original and transformed versions. This paper describes the way the technique was used in determining the validity of 48 passages taken from feminist literature, cites several of the passages in their original and transformed versions, and discusses problems encountered by the researchers. It then presents the results of the study, which indicated that in 24 cases both the original and transformed selections were warranted, indicating that the selections treated problems common to both sexes; in 18 cases the original selection was warranted and the transformed version was unwarranted, indicating that the selection treated problems encountered principally by one sex; and in 6 cases, both the original and transformed versions were considered to make unwarranted, fallacious statements about males and females. (GW)
THE GENDER ANTonym REPLACEMENT TECHNIQUE (GART):

Computer-Assisted Categorization of Gender Issues in Selected Feminist Literature

by

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K. B. Valentine

Michael Kennedy

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM"
I. INTRODUCTION

Ambrose Bierce defined marriage as "the state or condition of a community consisting of a master, a mistress and two slaves, making in all, two." Expanding the definition from the microcosm of marriage to the macrocosm of western society leads us to an opinion about our culture: we are all slaves to a system of role division whose necessity disappeared decades ago. Writings by women published since the early 1960's have stepped up recognition of the oppressive system of role divisions and sexual stereotypes under which we have operated. Because of the raising of consciousness about oppression since these writings became widely disseminated, strides toward equality of opportunity have been made even though the distance left to traverse is immense. But something else has happened as well: many "people" problems have been mislabeled as belonging only to women. A number of issues, identified in feminist-oriented writings as enslaving behaviors and prejudices belong not just to women, but, in fact, to humanity as a whole. Some men, reading women writers, react, not only sympathetically, but empathically to the situations presented. States of unhappiness, loneliness, frustration, powerlessness, or oppression belong to people of both sexes.

The issue we address, then is: "How can one distinguish whether a given written text making statements about the condition of one sex does, in fact, speak to problems encountered principally by that sex?" Put another way: "How can one recognize problems that belong to both sexes in writings concerning the oppression of one sex by the other?" In the final analysis, of course, the answer is individual judgment. What we propose here is a tool to aid that judgement. We call the tool the Gender Antonym Replacement Technique (GART). GART consists of rewriting (or rereading) material with each gender-linked word replaced by its antonym. For example, if a source sentence was:

A man can feel quite lonely when a woman leaves him.

the GART transformed object sentence would be:
A woman can feel quite lonely when a man leaves her.

GART, then, is simply a word-for-word substitution of those words which relate to gender or which imply gender. Our hope, in developing GART, is that readers of women's liberation (and, for that matter, men's liberation) literature will be able to distinguish between what are substantive differences in the way men and women are perceived and perceive themselves, and what are really problems shared in common by both sexes. Our method, described below, offers liberation movements specific ways to (a) zero in on special problems faced by one or the other sex separately, (b) identify problems that are shared by men and women, and (c) distinguish between the two kinds of problems.

It is not unimportant to note that one of the authors (Valentine) is a woman, and the other (Kennedy) is a man. We each brought our culturally-defined, mixed bag of socially conditioned gender-related behaviors to this research, and both of us are trying to foster a state of people liberation for our society.

In what follows, we explain the method we used for developing GART, discuss the results we obtained from one of the several ways the technique can be applied, indicate how the technique might be useful in other contexts, and suggest directions for future research with GART.

II. METHOD

1. We read a dozen of the best selling feminist books in the three largest bookstores surrounding the University of Kentucky campus in Lexington:


2. From these dozen books, we chose forty-eight selections which made strong statements about the condition of one sex or the other.

3. We submitted these selections to an IBM 370, Model 165, computer under control of a program called GENLEX which generates a lexicon from a source text. GENLEX produced an alphabetized list of all 2364 different words used in the forty-eight selections.

4. Next, both authors, plus a male professor in the English Department and a female graduate student in the Department of Human Communication, all at that time employed by the University of Kentucky, separately examined the lexicon to identify the words which each considered "gender-linked."

5. After each of the four of us had checked the list separately, we met together and agreed on 110 gender-linked words out of the original 2364 words in the lexicon.

6. We then agreed upon an antonym for each of the gender-linked words without knowing the context in which each word occurred.

7. The original selections were then resubmitted to the machine along with each gender-linked word and its antonym. Under control of another computer program, GART, each original selection, called the source, was reprinted, and, alongside it, the transformed version,
called the object text, with the antonyms substituted. Thus, a source text that read:

"How does a mother relate to adolescent sons who are attempting to reach male maturity by emulating male stereotyped role models?"^2

became

"How does a father relate to adolescent daughters who are attempting to reach female maturity by emulating female stereotyped role models?"

8. After the source and object selections had been printed side by side, the two authors of this article read each of the GART-transformed object selections and were able to agree on whether the transformed text was warranted or unwarranted (or neither). We based our evaluations only on our own experiences and beliefs.

9. After the object determination had been made, we went back to the source selections, and agreed upon whether, according to our own experiences and beliefs, the original text made warranted or unwarranted assertions. The term "warranted" is defined here as meaning that a statement has reasonable grounds and justification behind it. An "unwarranted statement" did not, in our opinion, offer reasonable grounds for assertion.

10. Finally, we grouped each of the selections into one of the following possible combinations, excluding those paragraphs which simply turned to nonsense when GART was applied.

   Category One: Source warranted; Object warranted
   Category Two: Source warranted; Object unwarranted
   Category Three: Source unwarranted; Object warranted
   Category Four: Source unwarranted; Object unwarranted

If a source-object pair fell into Category One -- that is, if both
the source and object selections seemed to be warranted in their assertions regardless of changes in all the gender-linked words, we judged that the selection dealt with an issue not peculiar to either sex, but, rather, applicable to both sexes. For example, the original source selection,

"Do you see yourself stronger, more able to resist or reject conditioning, more real than other women? Are you better able to act in this society as an individual rather than relating solely to the stereotypes of feminine behavior and the woman's place?"

became

Do you see yourself stronger, more able to resist or reject conditioning, more real than other men? Are you better able to act in this society as an individual rather than relating solely to the stereotypes of masculine behavior and the man's place?

and thus showed a problem common to either sex.

If a source-object pair fell into Category Two (source warranted-object unwarranted), we judged that the original selection did indeed make a valid statement about an issue pertinent to one sex only. Thus, the invalidity of the GART-transformed text, in fact, served to amplify the ideas in the original source selection.

Consider what happens to the passage:

"Would most women get married if they knew what it meant? I think of young women following their husbands wherever their husbands follow their jobs."

when it is transformed by GART to:

"Would most men get married if they knew what it meant? I think of young men following their wives wherever their wives follow their jobs."

A genuine difference between the current condition of women and the current condition of men is illuminated by the improbability of the transformed statement.
We found no cases where GART transformed a selection we judged as unwarranted into something warranted; Category Three was, therefore, empty.

The remaining source-object pairs fell into Category Four. The GART-transformed text simply did not relate to reality as we saw it, but then neither did the original selection. For example:

(The female) is a half-dead, unresponsive lump, incapable of giving or receiving pleasure or happiness; consequently she is at best an utter bore, an inoffensive blob....

was a GART-transformed statement we judged to be as unwarranted as the source from which it came:

"(The male) is a half-dead, unresponsive lump, incapable of giving or receiving pleasure or happiness; consequently, he is at best an utter bore, an inoffensive blob...."

As we mentioned earlier, some of the transformed selections simply could not be classified as warranted or unwarranted because they gave rise to nonsensical or hilarious object sentences. Because we were looking at the lexicon apart from the context in which the words occurred, we sometimes chose inappropriate gender-related alternatives. For example, the following source sentence:

"Woman is:

kicking strongly in your mother's womb, upon which she is told, "It must be a boy, if it's so active!"

resulted in this object sentence:

Man is:

kicking strongly in your father's scrotum, upon which he is told, "It must be a girl, if it's so active!"

In determining which members of the lexicon were gender-linked, we looked for words that would fit into one of three gender-linked classifications, and then agreed on a gender antonym on the same language usage level (formal, informal, or colloquial) as the original
word. Our classifications were:

(a) nouns (including proper names) and pronouns that specifically referred to male or female,

Examples:

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>she</td>
<td>he</td>
</tr>
<tr>
<td>mother</td>
<td>father</td>
</tr>
<tr>
<td>Betty</td>
<td>Adam</td>
</tr>
<tr>
<td>girl</td>
<td>boy</td>
</tr>
<tr>
<td>himself</td>
<td>herself</td>
</tr>
<tr>
<td>woman</td>
<td>man</td>
</tr>
</tbody>
</table>

(b) words that were distinctly male or female oriented, or that suggested stereotypical pursuits for either sex,

Examples:

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>adwoman</td>
<td>adman</td>
</tr>
<tr>
<td>apron</td>
<td>overalls</td>
</tr>
<tr>
<td>seductress</td>
<td>chest-beaters</td>
</tr>
<tr>
<td>nurse</td>
<td>paramedic</td>
</tr>
<tr>
<td>housekeeper</td>
<td>handyman</td>
</tr>
<tr>
<td>feminine</td>
<td>masculine</td>
</tr>
</tbody>
</table>

(c) any other word we suspected indicated male or female orientation,

Examples:

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>dewy fresh</td>
<td>puerile</td>
</tr>
<tr>
<td>titter</td>
<td>snicker</td>
</tr>
<tr>
<td>cutie</td>
<td>hunk</td>
</tr>
<tr>
<td>thick-thighed</td>
<td>pot-bellied</td>
</tr>
<tr>
<td>showers</td>
<td>bachelor-parties</td>
</tr>
<tr>
<td>gown</td>
<td>tux</td>
</tr>
</tbody>
</table>
This process took place almost on a "say the first word which comes into your mind" basis rather than a carefully considered analysis of the word. One reason for this -- a reason which could be eliminated in a different study -- was that we were familiar to some extent with the selections and we did not want to picture the word in context. A few times it happened anyway: we remembered that Abraham was used as Lincoln's first name. On the other hand, we did not remember that Betty was used as part of a commercial product, so we wound up with a transformed sentence involving Adam Crocker cake mixes.

We used "Adam" as the gender-antonym for all feminine first names; surprisingly no male given names appeared in the lexicon except Adrian which we left alone because it could serve for both sexes.

One of our major problems, of course, was not knowing the part (or parts) of speech each gender-linked word represented when it appeared in the lexicon. We could have considered all possibilities and substituted a choice for each. To do so, however, would have complicated the appearance of the object text and interfered with its reading so we simply made an assumption regarding part of speech and stuck with it.

Another problem is that some gender-linked words simply do not have good gender antonyms. Words associated with women like "womb", "bitch", "boobs", "menstruation", "widowhood", and "wallflower", and words associated with men like "balls", "eunuch", "lounge lizard", "pimp", and "wolf", pose difficulty in finding opposites relative to gender.

Adjectives and adverbs gave us the most trouble. What might seem gender-linked to one person, might not seem so to another. Thus, with some hesitation, we replaced "thick-thighed", "strident", and "dewy-fresh" which seemed to be linked to females with what seemed to be the more
III. RESULTS

When, according to the method we have just described, we placed selections from writings of the women’s liberation movement into categories, we made these general discoveries.

Androgynous problems emerged from Category One (source warranted; object warranted). Problems associated with love, marriage, being alone, raising children, assertiveness needs, and adolescence were those with which both men and women could empathize. We could safely say that these problems are common to many people of both sexes. Twenty-four, or .500% of the forty-eight selections, were judged by the authors as falling into Category One.

We found real differences related to gender in our examination of the selections that fell into Category Two (source warranted; object unwarranted). Problems relating to submissive, supportive, information-seeking behavior, and concerns about having to be charming and attractive seemed to us to have affected males and females in significantly different ways. Eighteen, or .375% of the forty-eight selections, were judged by the authors as falling into Category Two.

As we mentioned earlier, selections fitting into Category Three (source unwarranted; object unwarranted) made what we considered to be fallacious statements about both males and females. Extreme views of oppressive and contemptuous relationships between women and men issued forth from the material in this category. Six, or .125% of the selections were judged by the authors as falling into Category Three.

The forty-eight selections with which we started contained a total of 11,300 words. GENLEX produced a total of 2364 different words, along with their frequency of occurrence in these selections. Of these 2364 different words in our original selections, we judged 112 of them (or 4.8%) to be gender-related.
eight selections is charted, the ten most frequently appearing words were:

<table>
<thead>
<tr>
<th>Word</th>
<th>Frequency of Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>women</td>
<td>82</td>
</tr>
<tr>
<td>she</td>
<td>60</td>
</tr>
<tr>
<td>he</td>
<td>47</td>
</tr>
<tr>
<td>her</td>
<td>46</td>
</tr>
<tr>
<td>man</td>
<td>44</td>
</tr>
<tr>
<td>woman</td>
<td>41</td>
</tr>
<tr>
<td>men</td>
<td>40</td>
</tr>
<tr>
<td>him</td>
<td>33</td>
</tr>
<tr>
<td>his</td>
<td>27</td>
</tr>
<tr>
<td>husband</td>
<td>14</td>
</tr>
</tbody>
</table>

We now present an example of both the original source and the resultant GART transformed object for Categories One, Two and Four. Preceding each is a short comment giving our reasons for placing it in the category under discussion.

(1) Category One: Androgynous Problems

Source Warranted  
Object Warranted

In the midst of our society, some people exist who are not bothered about the health, education and welfare of their children, or about divorce, or about stereotypically-patterned responses, or about being lonely. We know there are people who do not mind being rejected, being ignored, or growing old. But for those of us who are not satisfied with the stereotypical role behavior, and who are bothered by the conditions mentioned above, these original and GART transformed selections, found in Category One, show problems common to both women and men. Problems in this category tend to be grouped around topics of peer pressure during adolescence, assertiveness needs, the need to feel attractive and to avoid loneliness, and, finally, the topics of love, marriage, and raising children.
The example of Category One is taken from *Sisterhood is Powerful*, the book that started many American women on the way to a raised consciousness about the inequities with which they had been putting up for years. The particular selection we have chosen from this book is also the selection which, when read by sensitive men, seemed to exclude them from problems they believed were in their sphere as well. Readers will probably agree that the problems addressed in the side by side examples are human, rather than gender-related ones.

**original source**

| wondering why your father gets mad now and then, but your mother mostly sighs a lot.... | wondering why your mother gets mad now and then, but your father mostly sighs a lot.... |
| being told all about it in advance by kids at school who titter and make it clear the whole thing is dirty.... | being told all about it in advance by kids at school who snicker and make it clear the whole thing is dirty.... |
| feeling proud of and disgusted by your own body, for the first, but not last, time.... | feeling proud of and disgusted by your own body, for the first, but not last, time.... |

(2) **Category Two: gender differences illuminated**

**Source Warranted**

Unfortunately, stereotypical responses and expectations toward, by and about women still have force in our society even though their ability to coerce behavior is weakening.

Our women are still expected, by a majority of the population, to be:
Our men are still expected, by a majority of the population, to be:

- aggressive
- independent
- stoical
- information givers
- objective
- a bit wild
- less worried than women about being single or a parent and
- paid more than women

When selections are GARTed, whatever differences there are in stereotypical responses to, by, and about women, become even more pronounced. Both the female and male readers recognized that the information given in these selections that follow pointed up differences in the way men and women are expected to behave. GART thus enables the reader to identify stereotypes of gender behavior. We believe society will be more open and beneficial to its members if the force of the stereotypes identified here are lessened, but no one can deny the stereotypes' current presence and power.

Although some of the phrases in the following example for Category Two can apply to both men and women, the following lines do seem to illustrate that women are thought to be more concerned with their appearance, with love, and with gossip than are men.
Growing up female in America. What a liability! You grew up with your ears full of cosmetic ads, love songs, advice columns, horoscopes, Hollywood gossip, and moral dilemmas on the level of TV soap operas.

(3) Category three
Source Unwarranted Object Warranted

Empty.

(4) Category four: exaggerated positions
Source Unwarranted Object Unwarranted

At an early point in our Introduction to Sociology courses, most of us learned that if a true-or-false test contained statements using "all" or "never," the statements should be marked "false." In the following Category Four examples, the implication is that all members of one sex or the other are fiends grasping power and influence while stomping a heavy boot on any member of the opposite sex who dares to put a foot in the door of equality. In both the original and GART form, the viciousness, with which the speakers view the opposite sex is recognized. Contrary to the extremist views taken in the three examples printed below, we believe that most people are genuinely interested in working toward a fair relationship among the sexes.

In our experience, neither gender has a monopoly on droning conversation, but, on the other hand, neither gender's speaking is totally "removed from anything of human value."
Being completely self-centered and unable to relate to anything outside himself, the male's "conversation," when not about himself, is an impersonal droning on, removed from anything of human value. Male "intellectual conversation" is a strained, compulsive attempt to impress the female.9

IV. CONCLUSION

In the preceding pages, we have shown how the Gender Antonym Replacement Technique can be used to identify not only problems shared in common by both women and men, but problems that, at this point in time, affect one sex more than the other. We have also shown how GART can be used to identify problems that appear to have been distorted beyond the experience of most of our populace.

A search through the extensive bibliographies of male/female language studies, most notably those of Key10 and Thorne and Henley11 revealed no proposal similar to the GART we have advanced here. We hope, therefore, that this new technique will prove useful to scholars in linguistics, women's studies, and communication, as well as to the most casual reader of gender-related topics.

Because our primary concern has been the development of the GART program rather than a precisely-controlled study, we had to take selections out of context with some unavoidable distortion as the consequence. Future researchers may want to use GART on an entire work to avoid contextual distortion.
One of the major problems that will face future researchers using GART is the multiple problem of gender. Consider that the genders of the writer, the writer's persona, and the person being spoken about, as well as the gender of the reader must be taken into account.

Future studies might be set up to confirm or disprove our categorizations of these selections. Not only their sex, but the subjects' placements on an androgyny scale might have an affect on their assessment of a particular selection's appropriate category.

GART could also be used to gauge the androgynous nature of a particular selection. The percentage of gender-antonym words per 1000 words of text might give a clue as to how gender-related a particular work is. Only one of the selections we chose, for example, turned out to have no gender antonyms and could be, therefore, categorized as androgynous.

Informally, GART can be used by anyone who, listening or reading, substitutes the gender antonym for what is being said, and then makes an assessment about the implications for equality of the sexes.

Furthermore, we agree with linguist Mary Richie Key that "perhaps the most urgent problem of human beings, if the ecologist and peace-maker will bear with me, is the friendship of male and female." We have no intention of being a part of any movement designed to deprive women and men of the pleasure of each other's company.

By increasing the focus of liberation movements on substantial similarities and differences; by having writers and readers say to themselves after each line has been written or read: "What if I now changed that 'she' to 'he'; or that 'himself' to 'herself'?" the result could be an overpowering empathy for the human, as well as the gender-oriented, condition.
REFERENCES


7Ibid., p. 180.

8Jong, p. 9.

9Solanas, p. 265.


12Key, p. 144.