MARITAL METRICS
USER AGENCY AND CONSTRUCTION IN EARLY AMERICAN MARRIAGE COMPATIBILITY SURVEYS

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ABSTRACT

This thesis looks at 20th century American marriage counseling compatibility surveys to argue that surveys—as a form of technical communication—have historically made assumptions about users' gender, race, ability, and religious identities, which in turn, have had material effects on users' lives. I am specifically interested in the way that the scientific, quantitative, and (more broadly) positivistic underpinnings of these surveys shaped how participants could answer survey questions. I use conventional content analysis to read three historical compatibility surveys to demonstrate the need for technical communicators to attend to the ways in which their writing and design choices might perpetuate notions of a "normative" user.

TABLE OF CONTENTS

INTRODUCTION

For hundreds of years, people have designed and relied on different tools to predict romantic compatibility before entering into marriage. From birth horoscopes used in Early Modern Italy (Azzolini, 2021) to phrenological assessments used in America during the 1850s (Bittel, 2021) human beings have turned to technology to codify truth about their social realities. While our methods may look different today, people are still invested in such evaluations. We take tests that claim to give us insight into our personalities, like the Myers-Briggs Type Indicator or the Enneagram of Personality. We take quizzes that reveal our affection habits, like those that claim to reveal our attachment style or love languages. Some of us even turn to something like zodiac sign compatibility tests or BuzzFeed Quizzes for answers to more specific questions. While these examples vary to the extent that they claim scientific credibility, an investment in positivism unifies them: systematically asking the right questions can reveal objective truths about ourselves.

As a form of technical communication, quizzes, questionnaires, and surveys have rich and overlapping histories. An underexplored chapter in this history emerges from the mid-twentieth century, when American practitioners in the developing field of marriage counseling started to design and publish pedagogical materials for other aspiring counselors. These materials came in a variety of forms, such as pamphlets, monographs, and workbooks, and were authored by a variety of self-proclaimed marital experts, like medical doctors, psychologists, and pastoral counselors. Regardless of which expert one turned to at the time, counselees encountered the premarital compatibility survey, an emergent genre from this period that claimed to quantitatively gauge a couple's viability as a married couple through a series of questions and answers about behavior, identity, and values. Surveys became material evidence to support or

question a couple's marriage prospects, or to identify a partner's non-normative behavior.

This period in American history saw experts across the social sciences becoming invested in quantitative methods because of the way that it conferred scientific legitimacy to their work (Davis, 2010). In other words, it was not just American marriage counselors that hoped to use empirical observation and statistical analysis to shore up legitimacy for their field, but a movement that could be seen in disciplines like anthropology, sociology, and psychology. Scholars trained in these disciplines would later go on to question objectivity as intellectual movements like poststructuralism and postmodernism gained momentum in the mid-20th century, but ideals and values from this era persist today.

Surveys are often presented as neutral, objective, and apolitical data collecting documents, but just like all other forms of technical communication, they are created by human beings who have their own sets of assumptions and beliefs about the world (Jones & Williams, 2018). The kinds of data that surveys collect depends on the questions that are asked and how those questions are worded. Surveys often use numeric scoring schemes for users to place themselves, a practice that assumes social phenomena can be quantitatively recorded. While surveys are still believed to be a form of technical communication capable of extracting objective truth about our world, looking closely at marriage compatibility surveys reveal the ways in which human bias is baked into these documents, sometimes resulting in the perpetuation of systemic oppression.

This thesis compares three 20th century American marriage counseling compatibility surveys to argue that surveys have historically made assumptions about users' gender, race, and religious identities, which in turn, have had material effects on users' lives. I am specifically interested in the way that the scientific, quantitative, and (more broadly) positivistic

underpinnings of these surveys shaped the way that participants could answer these questions. Employing rhetorical genre analysis (Miller, 1984) historical methods (Hallenbeck, 2012) and feminist analysis (Moeller & Frost, 2016) reveal how survey design has affected the people that have used them throughout time. Ultimately, this project seeks to understand the way that surveys have been used throughout history as truth-making technologies in intimate contexts.

HISTORICAL BACKGROUND

Historical context of American marriage counseling

Tracing the history of marriage counseling in America does not yield a neat sequence of events explaining how this profession evolved or even who was involved. In the early 20th century, married couples had a wide array of marital experts to choose from, each with their own unique sets of training. Ministers, doctors, lawyers, teachers, social workers, and a growing number of psychologists started declaring themselves as experts of marriage and offered their help to their married and single clients (Mudd, 1957). In the 1930s, the field of marriage counseling — if we can even call it a field — was far from standardized (Broderick & Schrader, 1981).

The array of experts engaged in this kind of work and their respective professional backgrounds profoundly affected how these marriage counselors interacted with their clients. An expert from one field could have an entirely different understanding of a client's presenting problem than one from another. For example, medical doctors tended to understand marital conflict from a biological and sexual perspective (Velde, 1957) while pastoral counselors understood conflict from a spiritual perspective (Westberg, 1958). Considering the wide array of people doing this kind of work in the absence of any standardized protocol, it could be argued that therapy session revelations often said more about the counselor than the counselee.

Americans faced a national economic crisis in the early 1930s as the Great Depression wreaked havoc worldwide. Families faced unprecedented financial hardship, which affected everyday people's lives: some husbands abandoned their families, engaged couples postponed their weddings, and families moved to smaller houses to save money (Davis, 2010). In the decade before, Americans began to explore the possibility that sexual expression had a place in

their lives “beyond the confines of marriage” (D'Emilio & Freedman, 1988, p. 241). However, the grim reality of the Great Depression and the challenges it brought with it put a halt to this kind of growing sexual liberalism. But despite their economic challenges, some couples (perhaps more than ever before) saw the value in going to marriage counseling, and used what little they had to pay for sessions with a marriage expert (Mudd, 1957).

Quantitative trends in the social sciences and survey research

In the mid-20th century, academics and practitioners in the social sciences increasingly relied on quantitative methods to make sense of the world. According to historian Rebecca L. Davis (2010):

> Between 1945 and 1965 individuals practicing premarital and marital counseling—whether they were clergy, social workers, psychologists, or others—increasingly relied on sociological and psychological tests, and couples calculated their compatibility with the help of statistical tables and charts. (p. 102)

Psychologists working as marriage counselors drew upon the budding field of personality psychology and innovation in qualitative methods to try and bolster scientific credibility for their fledgling field. Marriage counselors believed that these methods could engineer perfect relationships based on what these questionnaires revealed about their counselees. Counselors used questionnaires like the Bernreuter Personality Inventory to try and quantify someone’s personality traits so that couples would know if they were truly compatible for marriage (Davis, 2010).

This time period overlaps with what Groves (2011) calls the “first era (1930-1960) of survey research” (p. 861). It was during this time where statisticians became interested in probability sampling as something that could offer “bias-free estimates and measurable sampling errors” (Groves, 2011, p. 862). It is from the nexus of these disciplinary shifts and academic trends that the marital compatibility survey emerges.

CURRENT LITERATURE

This work explicitly takes up Jones, Moore, and Walton's (2016) call to disrupt "the narrative of our field" which should not be "so neatly encompassed by a coherently pragmatic identity" (p. 213). In their article, Jones et al. offer contrapuntal ways of reading sources and new ways of conceptualizing research projects. In answering this call, I employ a cultural-historical approach (Robles, 2018) to look at how surveys as a genre of technical communication have been designed to construct normative users and perpetuate systemic oppression. To most effectively ground my research design and analysis, I draw on technical communication scholarship that employs historical methods, social justice methodologies, and rhetorical genre analysis.

Historical methods in technical communication

Historical research within technical communication looks at how technical communication has or has not changed over time to give us better insight into our contemporary theory and practice. These historical methods allow scholars to explore antenarratives (Jones et al., 2016) within technical communication by way of comparing prescriptive and descriptive realities in a variety of contexts. Hallenbeck (2016) compares bicycle instructions from both institutional and non-institutional authors in nineteenth century America to look at how sources make assumptions about women's social world. Similarly, Skinner (2012) looks at three medical papers that Julia W Carpenter, a female doctor in the 18th century, presented to a medical society to argue that the "topics, styles, and genres expected of technical communicators" is often at odds with what was expected of women at the time (p. 307). Finally, Moeller & Frost (2016) argue that a historical analysis of cookbooks challenges the idea that this genre of technical communication was categorically liberatory for women. By critically reading marriage

compatibility surveys as institutionally-sanctioned documents, I reveal how prescriptive ideas about gender clashed with people's lived experience.

As is the case for the aforementioned pieces and this thesis, a historical lens lends itself extremely well to the social justice turn because of its ability to look at how systemic oppression has been perpetuated in technical communication practices and design throughout time.

Technical communication and the social justice turn

I am interested in employing historical methods because historically tracing patterns of oppression in document design empowers technical communicators to disrupt perpetuating it. Like Jones & Williams' (2018), this study takes the stance that "technical communication is not neutral or apolitical" and that it "has been complicit in the oppression of others" (p. 373). Social justice approaches to analysis, like Frost's (2015) "apparent feminism" can give us insight into new ways of reading sources. Like Moeller & Frost (2016), I read these documents "to critique technical artifacts that assume audience understanding in their representations and categorizations of subjects, and particularly of subjects identified as women" (p. 5).

Genre analysis and information design

As a rhetorical genre (Miller, 1984), marriage compatibility surveys prompt users to assess their likelihood of marital success with their partners. Surveys generally demand a kind of thinking and evaluating from their users, and marriage compatibility surveys specifically facilitated the kind of relationship evaluation that could affect how someone saw their relationship or whether they wanted to continue with their marriage. A closer read of survey design shows how surveys engendered behavior based on how they were designed.

Examining surveys through genre analysis reveals how seemingly neutral design choices can actively perpetuate social inequities. Jones & Williams' (2018) rhetorical analysis of voting

registration applications and questionnaires from 1890-1965 demonstrate how surveys materially disenfranchised Black voters. The authors write about these documents as "texts and technologies" that can be "complicit in supporting and promoting oppressive practices that have social, cultural, embodied, and material impacts on communities" (p. 371). What is most fascinating about this analysis is that the authors find that even though the documents use plain language and have a reader-friendly design, there are still a number of textual and visual strategies that disenfranchise voters. Similarly, Balzhiser et al.'s (2019) analysis of the 2010 U.S. Census shows how survey design and question wording can create and perpetuate systemic inequities. Through a "visual semiotic analysis" the authors show how user agency is constricted and representation is erased through questions related to race and Hispanic origins (Balzhiser et al., 2019, p. 3). This thesis, too, aims to reveal how design choices in surveys make assumptions about its subjects and materially affect their lives.

Numbers are a salient rhetorical tool in marriage compatibility survey design because of their ability to lend scientific credibility. Scholars in rhetoric and information design have argued that numbers can be used "as part of an informal inductive argument" as much as they can be used for "mathematical inference" (Battersby, 2003, p. 2). In other words, numbers do not neutrally make their way into documents like compatibility surveys, but can serve rhetorical and political functions. Battersby (2003) argues that statistical inference and the rhetoric of numbers can often be used by rhetors to claim mathematical precision and objectivity even for claims that may be lacking in both areas. Looking closely at how numbers are employed in surveys lets us see how the data collected from them are used to make broader arguments about normative human behavior.

Surveys are used to gather information that can be compared to larger populations. Census classifications, personality assessments, and credit scores are all forms of data infrastructure that use survey data to construct ideas about what might be understood as standard or normal (Koopman, 2019). When norms are constructed based on the results of survey research, it then becomes easier for those in power to impose these standards on other people (Igo, 2007). This thesis does not look at how statistics used compatibility surveys to make specific claims about marriage, but it does look at how surveys perpetuate self-fulfilling prophecies based on user identity assumptions.

METHODOLOGY

Data collection

I use conventional content analysis to compare three historical marriage counseling compatibility. Ernest Burgess and Leonard Cottrell Jr.s' (1939) *Predicting Success or Failure in Marriage*, Granger Westberg's (1958) *Premarital Counseling*, and James R Hine's (1963) *Grounds for Marriage* ground my comparative analysis. I have chosen these three texts because they a) illustrate the ways that marriage compatibility surveys changed throughout a twenty-five year period; b) represent different professional approaches to the practice of marriage counseling; and c) are texts written by prominent writers of the field during their respective times. This study does not seek to make arguments about the periodization of premarital compatibility surveys. In other words, these three texts are not wholly representative of milestone moments throughout the history of premarital compatibility surveys, but instead offer partial and situated glimpses into its development.

A comparative analysis allows us to see similarities and differences related to the design and textual information of these surveys. Comparative analysis is a popular approach in technical communication, with scholars like Skinner (2012) and Hallenbeck (2012) using the approach to show how prescriptive histories reflected in technical documents clashed with people's lived experiences. I have used archival methods to collect my data for this study, and build on approaches used by Hallenbeck (2015), Moeller & Frost (2016), Jones and Williams (2018).

Deciding and defining what counted as a marriage compatibility survey became central to my data collection. For the purposes of this study, I am defining a premarital compatibility survey as a document created by a variety of marriage counselors that employs questions with assigned numerical value intended to predict the success of a couple's marriage. Marital experts

at this time used different language to describe these documents, and I also found them in different locations. For example, I found Burgess and Cottrell Jr.'s (1939) survey in the appendix of their book, which they call the "Schedule Form Used in this Study." Westberg (1958) describes the survey that he includes in his pamphlet as merely an example of what might be used in pastoral counseling. Hine (1963) describes his collection of survey material as a "study and work manual" that could be used by both counselors and couples alike. While we see the genre of the premarital survey emerge during the 1940s (Davis, 2010), it is far from standardized, meaning that the name, presentation, and publication of them vary.

Additionally, each of these surveys came from larger works and I had to make decisions about what excerpts I chose. Burgess and Cottrell Jr.'s (1939) work is a book-length monograph, containing psychological analysis on various components of marital compatibility and over one hundred tables and over fifty charts visualizing the data they collected; Westberg's (1958) pamphlet is an instructional work for other pastoral counselors that only contains a single survey; and Hine's (1963) 75-page workbook contains surveys on nearly every page. To best get at the range and depth of these sources, I had to be selective with my reading and coding, but I also read each source widely to get a sense of what might be relevant to my analysis. I decided on picking three surveys that were similar in length to do the comparative analysis I will write about in my discussion, but I will briefly cover other features of these sources in my findings to represent each source holistically.

Table 1: Source Overview

Survey Source	Survey Title	Source Type	Survey Length
Burgess & Cottrell Jr.'s (1939) *Predicting Success or Failure in Marriage*	"Schedule Form Used In This Study"	Academic monograph	10 pages

Table 1 (cont'd)

Westberg's (1958) *Premarital Counseling*	"Premarital Counseling Guide"	Pamphlet	7 pages
Hine's (1963) *Grounds for Marriage*	"Exploring Habits, Interests and Ideas"	Workbook	7 pages

Coding

At the start of my data analysis, I photocopied each of my sources twice. Because of the formatting of the surveys, and because survey design was a critical piece of my analysis, I decided that an analog coding method would best serve this project. Using conventional content analysis (Tracy, 2013), I approached my sources both deductively and inductively. Because I had done some research on the surveys themselves, I was particularly interested in looking for textual and design themes related to user identity. I made note of assumptions I had before coding in a "memo" document that I was able to continually come back to throughout the coding process.

The initial codes related to user identity included gender, race, religious identity, and ability. However, I also approached my sources inductively to see new patterns that I may not have expected at the start of the study. Throughout this first pass of coding, I color-coded information related to identity, and used this as a preliminary category. I did this for every piece of textual information included in the surveys, making sure that every word was assigned some kind of initial category. It was not uncommon for some textual passages to have multiple codes assigned to them. I also made any notes related to observations I had around the design and layout of the surveys, or the use of numerical data.

After this first cycle of coding (Saldaña, 2021), I reread my sources and codes to think more carefully about the kinds of themes I wanted to generate. I similarly approached textual information with color-coding, this time focusing on codes related to different axes of identity

and design choices related to scoring systems. Creating themes that were distinct enough from each other, but also those that had enough evidence to be recurrent, took a couple of different configurations. In the end, I came up with themes like “numbers as statistical information”, “assumptions made about religious background” and “similar family background.” Each of these themes are source-specific, but I compare each theme to the way their corresponding codes showed up in the other sources in a parallel fashion in the results section below.

Finally, after finalizing my themes, I made connections to my findings in the extant literature in technical communication and also work that has been done in women’s and gender studies to fully think about how these documents assume information about their users.

Table 2: Initial Codes

Codes	Definitions
Numeric rhetoric	Used to make note of numerical design choices
Gender and sexuality	Used to highlight textual data explicitly or implicitly about gender and sexuality
Race	Used to highlight textual data explicitly or implicitly about race
Financial status and class	Used to highlight textual data explicitly or implicitly about financial status or class
Religion	Used to highlight textual data explicitly or implicitly about religion
Politics	Used to highlight textual data explicitly or implicitly about political activity or beliefs

RESULTS

In this section, I explore the results of my coding through themes I've generated for each source. While these themes center around similar aspects about user identity, like gender, sexuality, and race, each source uniquely employs survey design to construct user identity. Additionally, the rhetoric of numbers saliently plays a part in the survey design, even when the function of them varies significantly. Before exploring these themes, I provide historical context to each of the three sources.

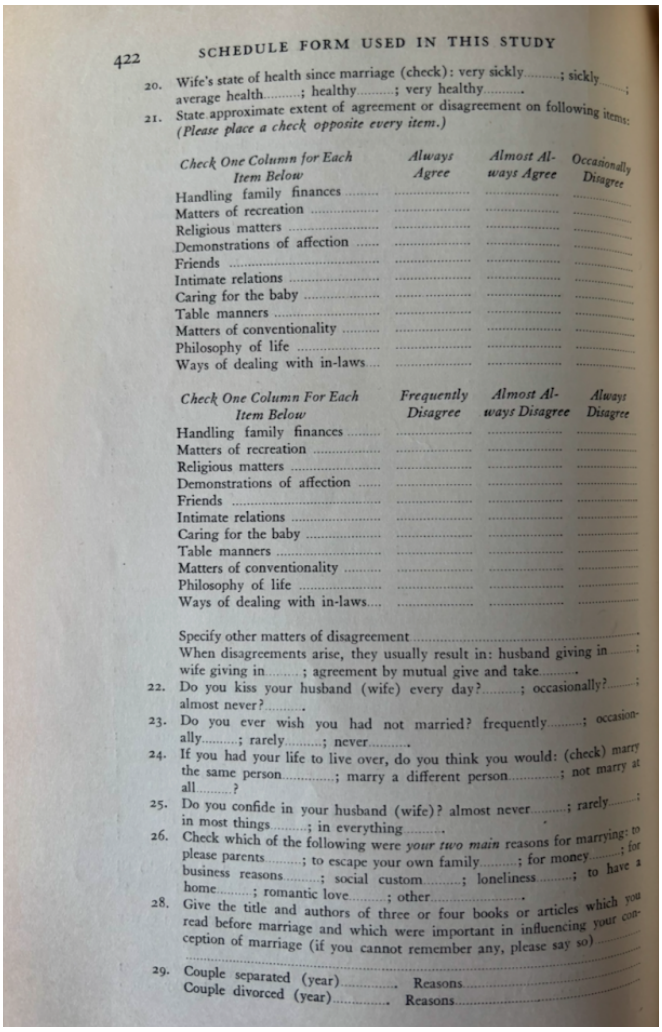
Burgess & Cottrell Jr.s' (1939) Predicting Success or Failure in Marriage

Predicting Success or Failure in Marriage is a book-length monograph written by sociologists Ernest Burgess and Leonard Cottrell Jr. Burgess was a prolific sociologist of the 20th century who worked at the University of Chicago and also served as the 24th president of the American Sociological Association (*Ernest W. Burgess,* 2009). Burgess' interests spanned across the field of sociology, but his interest in studying families and marriage culminated in this study.

Predicting Success or Failure in Marriage sought to "discover by statistical and by case-study methods the factors associated with marital adjustment" (Burgess & Cottrell Jr., 1939 p. ix). Burgess writes that marital adjustment had become a social problem dating back to the Renaissance and Reformation when the "conception of marriage as a sacrament" transitioned to "marriage as a contract" (Burgess & Cottrell Jr., 1939, p. 1). Additionally, Burgess believed that "divorce does constitute a social problem in that it has aroused public concern as to the causes of domestic discord and the possibility of its treatment and prevention (Burgess & Cottrell Jr., 1939, p. 2). Burgess writes that there were several methods of gathering data for this study, including "observation of the behavior of married persons," "intensive case studies," and

"experimental studies" but that the resulting book "relies chiefly on the questionnaire method supplemented by some intensive case studies" (Burgess & Cottrell Jr., 1939, p. 17). At the center of Burgess' analysis is his participants' emotional landscapes, which he sought to quantify and measure through a variety of numerical spectrums and scores. Davis (2010) writes that "...[Burgess] and his research team could look for statistically significant associations between particular answers and a couple's self-described happiness" (p. 105). In addition to participants' emotions, the surveys additionally recorded information related to family background, education and financial habits.

The survey used in Burgess' study is provided in full in the appendix of this book. Burgess' survey differs from the other two surveys I've included because it was given to couples after they got married instead of before—meaning that these were not administered to measure compatibility before marriage, but were used to measure emotional fulfillment after marriage. While I am interested in how surveys were used to make decisions about going through with marriage, I've included this survey in my study because we can see how these surveys were used to draw conclusions that could be generalized to American couples more broadly to predict "marital success." My coding results demonstrate how the design and questions included in these surveys made assumptions about users along different axes of their identity.



422 SCHEDULE FORM USED IN THIS STUDY

20. Wife's state of health since marriage (check): very sickly.....; sickly.....; average health.....; healthy.....; very healthy.....

21. State approximate extent of agreement or disagreement on following items: *(Please place a check opposite every item.)*

Check One Column for Each Item Below	*Always Agree*	*Almost Always Agree*	*Occasionally Disagree*
Handling family finances			
Matters of recreation			
Religious matters			
Demonstrations of affection			
Friends			
Intimate relations			
Caring for the baby			
Table manners			
Matters of conventionality			
Philosophy of life			
Ways of dealing with in-laws			

Check One Column For Each Item Below	*Frequently Disagree*	*Almost Always Disagree*	*Always Disagree*
Handling family finances			
Matters of recreation			
Religious matters			
Demonstrations of affection			
Friends			
Intimate relations			
Caring for the baby			
Table manners			
Matters of conventionality			
Philosophy of life			
Ways of dealing with in-laws			

Specify other matters of disagreement.....

When disagreements arise, they usually result in: husband giving in.....; wife giving in.....; agreement by mutual give and take.....

22. Do you kiss your husband (wife) every day?.....; occasionally?.....; almost never?.....

23. Do you ever wish you had not married? frequently.....; occasionally.....; rarely.....; never.....

24. If you had your life to live over, do you think you would: (check) marry the same person.....; marry a different person.....; not marry at all.....?

25. Do you confide in your husband (wife)? almost never.....; rarely.....; in most things.....; in everything.....

26. Check which of the following were *your two main* reasons for marrying: to please parents.....; to escape your own family.....; for money.....; for business reasons.....; social custom.....; loneliness.....; to have a home.....; romantic love.....; other.....

28. Give the title and authors of three or four books or articles which you read before marriage and which were important in influencing your conception of marriage (if you cannot remember any, please say so).....

29. Couple separated (year)..... Reasons.....
Couple divorced (year)..... Reasons.....

Figure 1: Burgess and Cottrell's (1939) survey asks for information related to habits

Themes

Numbers as statistical data

Unlike some marriage compatibility surveys that seek to quantify and score compatibility, Burgess and Cottrell's survey used numerical information to conduct statistical analyses for predicting "marital success." At earlier points in the book, Burgess and Cottrell talk about how they used the numeric information they collected in the surveys to conduct numerous statistical analyses that could illuminate correlations between spousal happiness and survey answer similarities (Burgess & Cottrell Jr., 1939, p. 16). The purpose of these surveys was not

necessarily to inform the participating couples about their own marital success, but to make broader predictions about which habits, behaviors, and identity markers led to marital success.

After collecting the data from participants, Burgess used "scoring keys" to standardize numerical information with qualitative descriptions. However, he admits that "the assignment of values was somewhat arbitrary and not precise, but the values were crudely proportional to what appeared to be the relation existing between the answers and the happiness ratings" (Burgess & Cottrell Jr., 1939, p. 63). This passage reveals that while numeric information was critical in finding correlations related to marital happiness, the numbers themselves did not come from an objective place, but instead came from an attempt to quantify the very social phenomena that cannot be measured, like happiness.

Burgess believed that "Prediction is the aim of the social sciences as it is of the physical sciences" (*Ernest W. Burgess,* 2009). But with arbitrary numerical scoring, it is difficult to understand now what exactly Burgess thought he was measuring. This is further complicated by the kinds of textual information he collected, which I look at more closely below.

Questions related to gender and sexuality

Of the three surveys I analyzed for this project, this is the only where the questions asked of both the husband and wife are identical. While there are two different sections for the husband and wife to answer, the questions and answers available to both are the same. This does not mean that the findings used in this survey were used to draw egalitarian conclusions about men and women's roles in a successful marriage, but it does mean that the survey did not frame men and women as diametrically different from one another.

Questions related to race

The survey asks users to provide what "racial or national stock" they identified as (Burgess & Cottrell Jr., 1939, p. 424). The phrasing of this question conflates race and ethnicity, blending two distinct categories into a single answer prompt. The phrasing of "racial stock" indicates a biological understanding of race, a common belief held by America's early marriage counselors because of their disciplinary overlap with eugenicists (Ladd-Taylor, 2001). The word "stock" also indicates a kind of singularity or purity, as though users should be able to easily trace their lineage to a single source. Finally, asking about "national stock" seems to invite answers related to white identity, instead of those of nonwhite descent.

While each of the surveys included in this study ask participants to provide demographic information, the phrasing of this question indicates that it does not objectively seek to record information about a participants racial or ethnic identity, but instead asks them to answer a question framed from a biological understanding of race. Considering American marriage counseling's relationship to eugenics, it is likely that questions like these were used to draw conclusions about racial compatibility instead of marriage compatibility.

Financial status and class

The surveys ask users to provide information about "what type of dwelling" they lived in, including how many rooms they had (Burgess & Cottrell Jr., 1939, p. 421). It also asks users to list the size of the community and how far it is from Chicago (where Burgess and his team resided). Additionally, the surveys ask users to list the amount of education they have received.

While these questions may have also been framed under the guise of standard demographic information, they are framed in ways that might provide more information related

to a participant's class status. Instead of merely asking about salary, Burgess is interested in the quality and size of someone's home.

Assumptions made about religion

Although Burgess and Cottrell were sociologists working from a secular standpoint, they make a lot of assumptions about the religious identities of their users. Instead of asking about religious activity or church attendance, they specifically ask "at what age" users "stop[ped] going to Sunday school or other religious school for children? (Burgess & Cottrell Jr., 1939, p. 424). This question does not give users the opportunity to clarify what religious activity they engaged in as children, and also uses language indicative of Protestant religious practice. Additionally, the way the question is framed assumes that users had some sort of formal religious experience to begin with, which may also be tied to assumptions made about participant's class status, too.

Granger Westberg's (1958) *Premarital Counseling*

Lutheran clergyman Granger Westberg first published his seminal booklet *Premarital Counseling* in 1950 (Westberg & Johnson, 2015, p. 74). In his booklet, Westberg provided his developing understanding of both the theory and practice for counseling couples within the church. With interests spanning the spiritual, psychological, and physical health of his parishioners, Westberg took on additional work not typically associated with the role of a church pastor, including working as a hospital chaplain, publishing works on community psychiatry, and occupying a joint appointment in theology and medicine at the University of Chicago (Westberg & Johnson, 2015). His wide interests and his holistic view of his parishioners' wellbeing earned him a reputation of being an innovator in—what his daughter and biographer Jane Westberg called — "whole person care," and more broadly, as a trailblazer in the field of pastoral counseling (Westberg & Johnson, 2015).

Both professional and laymen readers found Westberg's writing in *Premarital Counseling* to be exciting and informative, and in 1958, The National Council of Churches asked Westberg to revise the seminal booklet with new ideas for a second edition (Westberg, 1958, p. 9).

The second edition of *Premarital Counseling* features the "Pre-Marital Counseling Guide," a questionnaire that claimed to measure a couple's marital compatibility. Questions ranged from "How Many Brothers and Sisters Do You Have?" to "What Books Have You Read on the Subject of Physical Adjustment in Marriage?"(Westberg, 1958, p. 9). As the couples answer these questions, they are invited to keep track of the score they accrue with the corresponding numbers attached to each answer; the higher the score, the more compatible they were.

Themes

Numbers as moral ranking

Westberg uses numbers as a way to give users insight into their compatibility. Westberg provides a scoring guide that ranges from "excellent, good, fair" and "questionable scores" and also adds that "most well-matched couples get a score of about 550" (Westberg, 1958, p. 10). The scoring system of these questions are not hidden on a separate page, but instead, are listed underneath each possible answer. This allowed couples to understand which behaviors were valued and which were seen as less desirable. Numbers serve the ostensible function of giving a couple a compatibility score from which they could learn more about their strengths and weaknesses, but numbers also communicate to the user what they *should* be answering. I take a closer look at how some of these scores construct different axes of identity and behavioral habits as good or bad.

Assumptions about gender

Like the other surveys, this only gives scoring options for the heteronormative marital pairing of "man" and "woman." While the survey asks answers from both participants, not all scores are given equally to men and women, even when they answer the same questions. For example, the question, "Do Your Parents Favor Your Proposed Marriage?" provides the option of answering yes or no (Westberg, 1958, p. 13). When a man answers yes, he receives ten points, but when he answers no he receives five points. When a woman answers yes she receives fifteen points, but when she answers no, she receives zero points. In other words, a man is weighted less than the woman for answering yes, but he is also punished less for answering no. This numerically grants agency to men, while restricting agency for women. In another example, if a woman answers that she plans to work outside the home after marriage, she gets 0 points. Even when the wife answers the question as closely as she can to the "right" answer, she is still unable to receive the same kind of score that her husband can, numerically rendering her unequal. Additionally, some questions are written to promote the motherhood mandate. The question "How many children do you hope to have" gives the couple 15 points if they plan to have three or more, and zero points if they don't plan to have any.

Additionally, the scoring system depends on the answers of both men and women, but there is only one answer that can be circled. Put differently, only one person is required to use their pencil to circle answers for the couple. While we know that women were often those that initiated going to counseling (Davis, 2010) and have historically been tasked with shouldering emotional labor in heteronormative relationships (Anderson, 2023), we could also imagine men as embodying traditional roles by answering for the entire couple in these surveys. It is not apparent just from reading these texts which party materially engaged with these surveys, but the

design of this survey limits user agency in the way that it makes one person answer for two people.

Numerical scoring is not just used to punish or promote an individual's gender expression, but can be used to evaluate the couple's collective behavior, too. For example, if the couple comes to counseling only having been engaged for one to three months, they get a score of zero; if they have been engaged from three months to one year, they get a score of fifteen; and if they have been engaged longer than that, they get a score of either a ten or a five (Westberg, 1958, p. 12).

This is not where assumptions made about gender end. In fact, the surveillance of gender can be seen interlaced with other questions, especially as they relate to financial status and class.

Assumptions about race

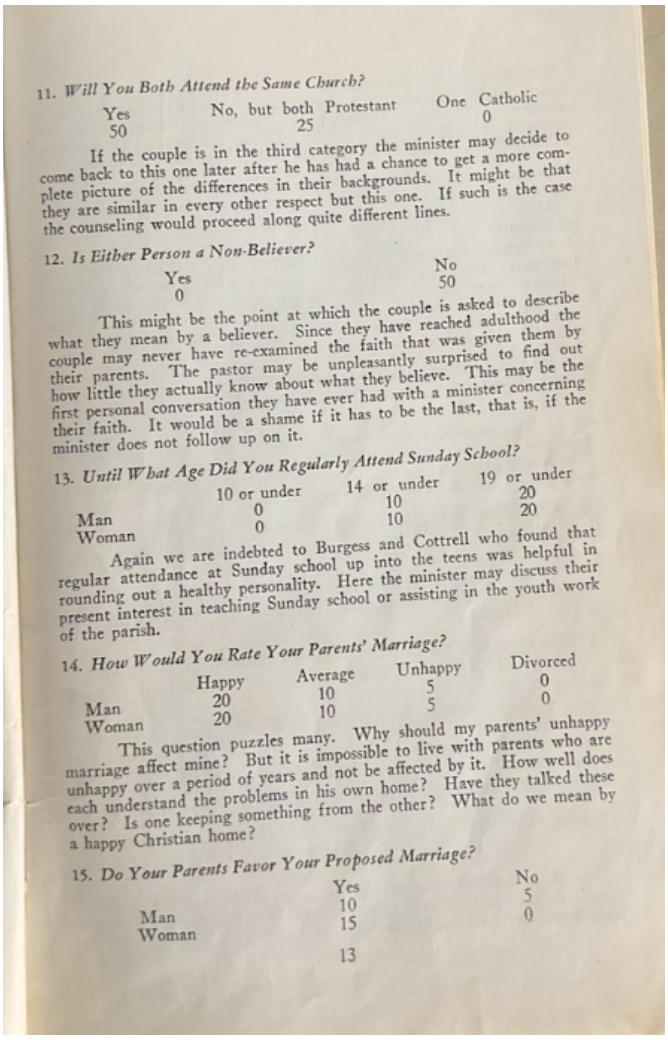
The survey asks about comparative national and cultural background and gives the following possible answers: "Same"—20 points, "Fairly similar"—10 points, and "Very dissimilar"—0 points (Westberg, 1958, p.11). There is also an accompanying piece of textual information that says, "An example of two opposites might be a couple where the parents of one were born in Europe while the parents of the other are third-generation Americans. By cultural background we refer to such matters as educational interests, tastes in music, art, literature, foods, etc." (Westberg, 1958, p. 11). In this case, cultural background seems to be code for class or financial status.

Using the word "opposite" to describe national background invokes a hierarchical understanding of race and national origin. Further, the example that Westberg gives centers white users and erases nonwhite users. Additionally, the provided passage does not effectively clarify the differences between "fairly similar" and "very dissimilar." Finally, the scores

associated with these answers reveal the values of this survey's author. While the Burgess & Cottrell survey framed their question about race and nationality around a biological understanding of those concepts, they did not reward or punish provided answers in any explicit way. In this survey, Westberg does indeed reward similar national and cultural backgrounds, suggesting the idea that people of the same race are more compatible—echoing eugenics sentiments yet again.

Assumptions about religious identity

The survey makes assumptions about its users' religious identities by restricting possible answers. To the question, "Will you both attend the same church?," the scoring is as follows; "Yes"—50 points, "No, but both Protestant"—25 points, and "One Catholic" — zero points (Westberg, 1958, p. 13). This clearly reveals harmful prejudices against Catholicism, but additionally reveals a very narrow way of defining interfaith relationships. It is worth noting that this question is numerically weighted the most significantly of all 29 questions asked in this survey.



11. *Will You Both Attend the Same Church?*

Yes	No, but both Protestant	One Catholic
50	25	0

If the couple is in the third category the minister may decide to come back to this one later after he has had a chance to get a more complete picture of the differences in their backgrounds. It might be that they are similar in every other respect but this one. If such is the case the counseling would proceed along quite different lines.

12. *Is Either Person a Non-Believer?*

	Yes	No
	0	50

This might be the point at which the couple is asked to describe what they mean by a believer. Since they have reached adulthood the couple may never have re-examined the faith that was given them by their parents. The pastor may be unpleasantly surprised to find out how little they actually know about what they believe. This may be the first personal conversation they have ever had with a minister concerning their faith. It would be a shame if it has to be the last, that is, if the minister does not follow up on it.

13. *Until What Age Did You Regularly Attend Sunday School?*

	10 or under	14 or under	19 or under
Man	0	10	20
Woman	0	10	20

Again we are indebted to Burgess and Cottrell who found that regular attendance at Sunday school up into the teens was helpful in rounding out a healthy personality. Here the minister may discuss their present interest in teaching Sunday school or assisting in the youth work of the parish.

14. *How Would You Rate Your Parents' Marriage?*

	Happy	Average	Unhappy	Divorced
Man	20	10	5	0
Woman	20	10	5	0

This question puzzles many. Why should my parents' unhappy marriage affect mine? But it is impossible to live with parents who are unhappy over a period of years and not be affected by it. How well does each understand the problems in his own home? Have they talked these over? Is one keeping something from the other? What do we mean by a happy Christian home?

15. *Do Your Parents Favor Your Proposed Marriage?*

	Yes	No
Man	10	5
Woman	15	0

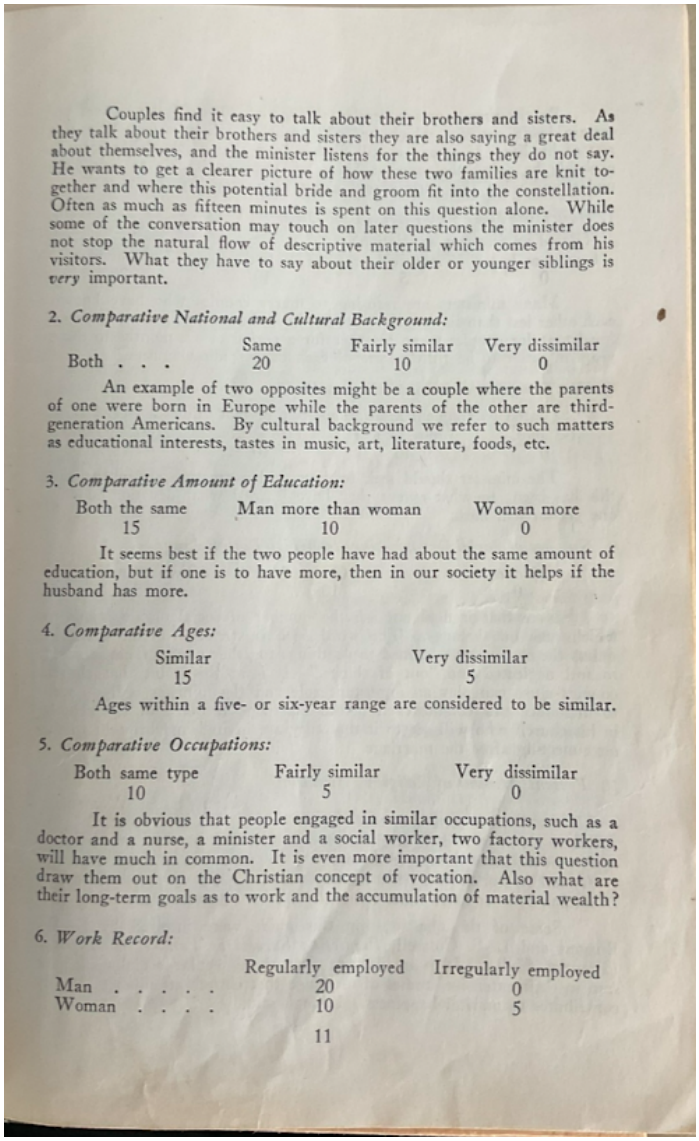
13

Figure 2: Question 11 on Westberg's (1958) survey asks about church attendance

There are other questions framed around religious practice: how couple's plan on using prayer before confronting conflict and before mealtime, how couple's envision the role of their pastor in their life, and how they might practice daily devotion time. It may make sense that so much of the survey's questions deal with religious subject matter given Westberg's positionality as a Lutheran clergyman, but at the same time, *Premarital Counseling* circulated among pastoral counselors practicing far beyond outside the Lutheran tradition. Even when these surveys made their way to religious audiences, they still excluded users along its narrow construction of religion.

Financial status and class

The survey assumes that users have attained a particular kind of financial status. For example, the question "Will You Live With Either of Your Parents During the First Year or So?" gives couples a scoring possibility of "Yes"—0 points and "No"—20 points (Westberg, 1958, p. 15). The survey assumes that couples should have the resources to be able to live on their own, and according to the way that the previous answers were scored, assumes that the couple should be able to survive solely from the husband's work.



Couples find it easy to talk about their brothers and sisters. As they talk about their brothers and sisters they are also saying a great deal about themselves, and the minister listens for the things they do not say. He wants to get a clearer picture of how these two families are knit together and where this potential bride and groom fit into the constellation. Often as much as fifteen minutes is spent on this question alone. While some of the conversation may touch on later questions the minister does not stop the natural flow of descriptive material which comes from his visitors. What they have to say about their older or younger siblings is *very* important.

2. *Comparative National and Cultural Background:*

	Same	Fairly similar	Very dissimilar
Both . . .	20	10	0

An example of two opposites might be a couple where the parents of one were born in Europe while the parents of the other are third-generation Americans. By cultural background we refer to such matters as educational interests, tastes in music, art, literature, foods, etc.

3. *Comparative Amount of Education:*

Both the same	Man more than woman	Woman more
15	10	0

It seems best if the two people have had about the same amount of education, but if one is to have more, then in our society it helps if the husband has more.

4. *Comparative Ages:*

Similar	Very dissimilar
15	5

Ages within a five- or six-year range are considered to be similar.

5. *Comparative Occupations:*

Both same type	Fairly similar	Very dissimilar
10	5	0

It is obvious that people engaged in similar occupations, such as a doctor and a nurse, a minister and a social worker, two factory workers, will have much in common. It is even more important that this question draw them out on the Christian concept of vocation. Also what are their long-term goals as to work and the accumulation of material wealth?

6. *Work Record:*

	Regularly employed	Irregularly employed
Man	20	0
Woman	10	5

11

Figure 3: Question 6 on Westberg's (1958) survey asks about employment history

We also see how assumptions about gender interweave with assumptions made about financial status and class in Question 6 (see above). Men are numerically punished more than women for answering if they had had a history of irregular employment, whereas the wife is rewarded for that same answer (Westberg, 1958, p. 11). Perhaps more than any other identity marker, assumptions about women and their domestic role within marriage are embedded into questions ostensibly about other subjects.

James R Hine's (1963) *Grounds for Marriage*

Hine's (1963) *Grounds for Marriage* claimed to be "a study and work manual to be used by marriage counselors, ministers, teachers and couples preparing for marriage" (Hine, 1963, p. i). Interestingly, this is the only of the three publications that suggests that the guide can be used by couples themselves without the guidance of an expert. The book opens with a section on how to use the manual, and six main sections whose focus range from personality traits to financial hygiene, to religious practices and more. Each section contains a variety of activities, like inventory charts, open-ended questions and surveys.

For the purposes of this study, I chose to look at four surveys in the section entitled "Adventure Into Mutuality" because I was interested in the way that this section constructed notions of compatibility about things like "habits, interests and ideas" (Hine, 1963, p.17). Additionally, I felt like this section's content related more closely to that of the Burgess & Cottrell and the Westberg survey. The four surveys I looked at were called "Tastes and opinions," "Hobbies and leisure time activities," "Your listening, reading and viewing pleasure," and "Your personal happiness score" (Hine, 1963 p. 17). Together, these surveys offer valuable insight into how compatibility was measured through specific interests, behaviors, and attitudes during this historical period.

Themes

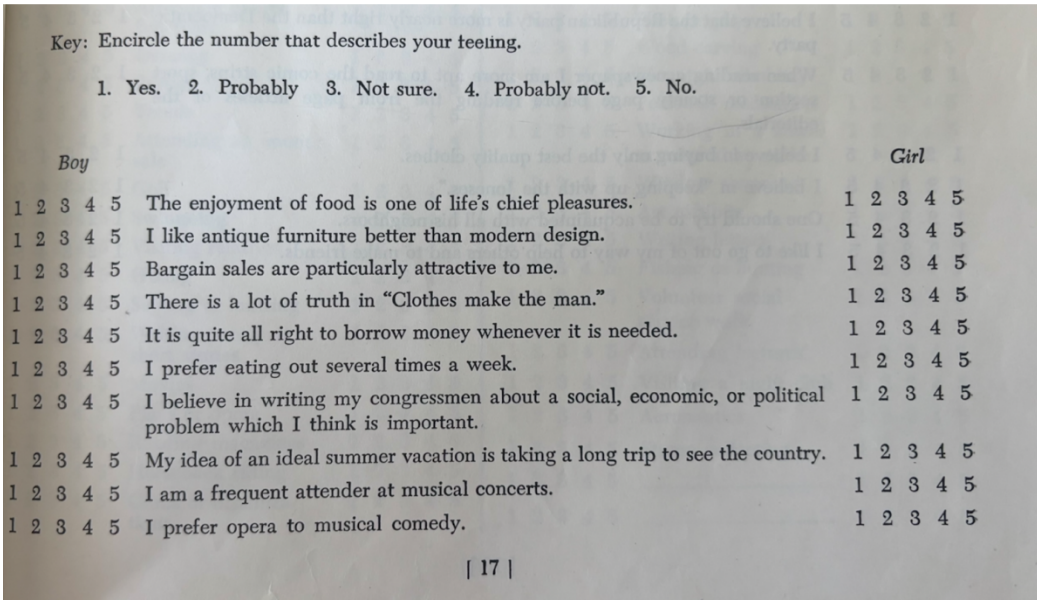
Numbers as heuristics for similarity and difference

The numbers in this survey give users the opportunity to demonstrate how much they agreed with a variety of different prompts. A prompt might say "I like antique furniture better than modern design" (Hine, 1963, p. 17), and the user circles a number ranging from one to five where one signified total disagreement and five signified total agreement. Unlike surveys from the previous two sources, these numbers were not used for further calculations. Instead, they act as visual heuristics for understanding similarity and difference. After the survey portion of this activity, Hine asks a series of five open-ended questions, like "How many 1's and 2's do you have in common?" (Hine, 1963, p. 24). These questions encourage couples to have more direct conversations with each other about their interests and values. This survey facilitates far more open-ended conversations about lifestyle preferences instead of morally-laden conversations about what behaviors and attributes were or were not desirable for compatibility like the Granger survey.

At the start of the chapter, Hine writes that "an appreciation of your differences and similarities will aid you in making adjustments and living together harmoniously as life companions" (Hine, 1963, p. 17). Here, there is an acknowledgement that a married couple's individual differences can strengthen their union, and numbers are used to stimulate reflection about these differences instead of to provide a rigid compatibility score. It is important to note that the other sections in this workbook do indeed use numbers to score and track different metrics, so it is not necessarily that the scoring convention became less prevalent in surveys like this by the time of Hine's writing, but rather that new ways of thinking about couple compatibility necessitated new ways of designing surveys.

Construction of gender

The survey is designed with two "Boy" and "Girl" column's bisected by a range of five numbers. This design choice visually constructs gender polarity. Additionally, the words "boy" and "girl" not only make assumptions about heteronormative relationships, but they also say something about age, suggesting that before getting married, men and women are young and naive.



Key: Encircle the number that describes your feeling.

1. Yes. 2. Probably 3. Not sure. 4. Probably not. 5. No.

Boy		*Girl*
1 2 3 4 5	The enjoyment of food is one of life's chief pleasures.	1 2 3 4 5
1 2 3 4 5	I like antique furniture better than modern design.	1 2 3 4 5
1 2 3 4 5	Bargain sales are particularly attractive to me.	1 2 3 4 5
1 2 3 4 5	There is a lot of truth in "Clothes make the man."	1 2 3 4 5
1 2 3 4 5	It is quite all right to borrow money whenever it is needed.	1 2 3 4 5
1 2 3 4 5	I prefer eating out several times a week.	1 2 3 4 5
1 2 3 4 5	I believe in writing my congressmen about a social, economic, or political problem which I think is important.	1 2 3 4 5
1 2 3 4 5	My idea of an ideal summer vacation is taking a long trip to see the country.	1 2 3 4 5
1 2 3 4 5	I am a frequent attender at musical concerts.	1 2 3 4 5
1 2 3 4 5	I prefer opera to musical comedy.	1 2 3 4 5

[17]

Figure 4: Hine's (1963) survey asks users to describe their feelings with numbers

Surprisingly, the prompts in this section are written in ways that are fairly gender neutral. This might just be because of the section that I chose—the workbook contains several other chapters that could have more questions framed around gender. However, this survey does ask users to say how much they like to enjoy hobbies or media that has strong historical associations with gender. For example, one prompt asks how much participants enjoy reading women's magazines like *McCall's* and *Ladies' Home Journal* (Hine, 1963, p. 20). But because the survey allows both men and women to separately answer, men could theoretically say that they really

enjoyed reading women's journals, demonstrating a small way that this survey expands user agency.

Religion

Unlike the other surveys, Hine's survey's design allows users to answer against any assumptions about religious activities. For example, one prompt inquires about "Attend[ing] church functions" (Hine, 1963, p. 19) but if participants wanted to, they could negatively voice their feelings on a scale of one to five. However, there are still several prompts that have assumptions about religious practice embedded into them, such as a prompt asking how often users "[Teach] a Sunday school class" (Hine, 1963, p. 19). One section of the survey asks about reading preferences, and the user is invited to rate the following examples in terms of interest level: *Time, Life, McCall's, Christian Century* (Hine, 1963, p. 20). Clearly, *Christian Century* did not circulate anywhere near that of the other examples, demonstrating the author's assumptions about the prevalence of religious practices.

Racial identity and politics

Unlike the two previous surveys, Hine directly asks questions about political interests and affiliations. Some prompts are phrased rather plainly, such as "When I am with friends, we frequently discuss social problems" (Hine, 1963, p. 18). Others, however, are phrased in ways that almost assume that they *can* be neutral, like "I have helped or would help to eliminate racial discrimination in my community" (Hine, 1963, p. 18). This question is undoubtedly phrased for white audiences and does not consider that nonwhite audiences do not have a choice regarding being on the receiving end of such discrimination.

Other prompts related to politics are shaped by the time of its writing: "I believe the greatest threat to the world is Communism," and "Socialism offers some solutions to our present-

day problems" (Hine, 1963, p. 18). Some prompts are still relevant to today's political context, like "I believe the Republican party is more nearly right than the Democratic party" (Hine, 1963, p. 18). While the ranking system embedded in this survey restricts the kind of information that participants are able to give about politics, the survey still invites potential disagreement about political activity.

Class and Financial Status

Some of the prompts inquire about financial habits, like "It is quite all right to borrow money whenever is needed" (Hine, 1963, p. 17). However, others assume a level of financial independence, like "I am a frequent attender at musical concerts" (Hine, 1963, p. 17). Because of Hine's numerical ranking system, though, users are neither directly rewarded or punished for their class or financial statuses.

DISCUSSION

Marriage counselors used surveys in their practice because they believed that they were an objective way to collect data about their clients. However, an analysis of survey design—like the use of scoring metrics and the phrasing of textual questions—reveals the ways that practitioner assumptions about health, marriage, and the world are foundationally baked into these documents.

Numeric rhetoric

Each of the surveys in this study collect numeric information from users as a way of collecting "objective" information about them. Visually, the implementation of numbers in each of the surveys appear similar, yet each survey employs numerical design for different purposes.

Burgess & Cottrell's (1939) survey collects numerical information to statistically predict marital success. The authors explicitly frame their numeric analysis as scientifically rigorous, using statistical associations to make generalizations about marital compatibility for the American population more broadly. Here, numeric rhetoric is deployed as a tool to lend scientific legitimacy to these surveys. In contrast, Westberg's (1958) survey uses numeric scores to directly rank couples' compatibility against his predetermined scoring range. In this context, numbers become a moralizing tool: higher scores reflect adherence to particular social ideas, while lower scores explicitly penalize behaviors and beliefs deemed less desirable. Numeric values function not only as indicators of compatibility but also as a tool for prescribing specific normative behaviors for users. Finally, Hine's (1963) survey uses numeric ratings differently than both of the two previously mentioned sources. These numeric ratings are not used for statistical prediction or comparative ranking, but become visual markers of similarity and difference intended to facilitate couples throughout their conversations about their relationships.

In this context, numbers are heuristic tools that spark conversation between couples instead of serving as evidence to make definitive judgments of compatibility for marital experts.

In marriage compatibility survey design, numbers visually signify empirical rigor and scientific authority. During a period when marriage counseling lacked credibility as a field, using numbers, regardless of their practical application, was a design choice that allowed experts to shore up credibility for themselves and for their practices. While sociologists like Burgess and Cottrell, benefited from the institutional backing that already conferred scientific status on their work, Westberg and Hine strategically adopted numeric conventions as a means of borrowing credibility from the social sciences. Ultimately, numeric rhetoric served to give aspiring martial experts credibility in a field struggling for legitimacy instead of affording users accurate and holistic ways discussing their marital prospects.

Assumptions embedded in survey design

Marriage compatibility surveys are ostensibly designed for anybody wanting to get married, yet a closer analysis reveals that they have been written with a narrow demographic assumed as their audience—specifically white, middle-class, Protestant, heterosexual, and gender-conforming couples. By implicitly presenting these identity markers as normative and others as nonnormative, survey design enables systematic oppression.

The surveys analyzed in this study aggressively reinforce traditional gender roles in the ways that questions are worded and answers are scored. Westberg's guide assigns unequal scoring for the same answers depending on gender. Women are punished for working outside the home, encouraged to have many children, and are infantilized by survey language calling them "girls." By numerically encoding gendered expectations, like the motherhood mandate, these surveys reinforce patriarchal views and limit women's autonomy. Both Westberg and Hines'

surveys also visually separate the responses given by men and women, reinforcing the idea that men and women are diametrically different and complementary of one another.

Religion also becomes a site for evaluation. For example, Burgess and Cottrell's (1939) survey demonstrates assumptions about religious identity by emphasizing Protestant religious practices. By asking couples about their frequency of attendance at "Sunday school" for example, the survey does not give users the opportunities to provide information regarding a range of religious practices. Westberg's (1958) survey explicitly privileges some forms of religious practice more than others by awarding intrafaith marriages with higher scores and penalizing couples for "interfaith" marriages, which he defines as Protestant and Catholic marriages. This design choice is particularly problematic because of the way that it ignores significant demographics and experiences, such as Black Southern Baptist communities and other religious groups prevalent in the mid-20th century.

The three surveys also make assumptions about financial status and class. Westberg's (1958) survey explicitly penalizes couples who plan to live with parents post-marriage, reflecting a middle class expectation of financial independence. Burgess and Cottrell's (1939) survey assess marital viability partly through questions related to education level, home size, and community status. Similarly, Hine's (1963) survey assumes a certain level of financial stability and leisure time, as seen in questions related to musical concerts, reflecting middle class cultural norms. These assumptions systematically disadvantage couples from less economically secure backgrounds.

In addition to all of the assumptions these surveys make based on the things it *does* ask, there are also lots of things these surveys don't ask. These surveys do not ask questions about communication style, conflict resolution skills, or emotional intelligence to name a few. How

surveys frame questions is as important as what questions it considers worth asking in the first place.

Marriage compatibility surveys claim to measure a singular compatibility. But in practice, they measure a list of compatibilities along the lines of identity. Ultimately, the assumptions that writers of marriage compatibility surveys make restrict user agency, perpetuate harmful stereotypes, and reward and punish answers in ways that clash with the supposedly neutral and apolitical ethos of surveys.

CONCLUSION

Contemporary implications

While this thesis focuses on historical surveys in the context of American marriage counseling, its findings have practical and theoretical implications for technical communicators today. To start, surveys, questionnaires, and quizzes like these are still used in marriage counseling contexts today. The Gottman Relationship Checkup, Personal Assessment of Intimacy in Relationships (PAIR), ENRICH Marital Inventory, Golombok Rust Inventory of Marital State (GRIMS), Dyadic Adjustment Scale (DAS) are widely used in a variety of practitioner contexts. As recently as this year, The Gottman Relationship Checkup claims that it uses "scientific self-assessment" to "measure relationship happiness" (*Gottman Assessment,* 2025). I bring these examples up not to draw suspicion towards their scientific claims, to condemn surveys as tools, or to suggest that they cannot be helpful in practitioner contexts. I do, however, invoke these examples to remind readers that claims about surveys as objective ways of collecting information emerge from a complicated history in which some users were valued more than others. It is critical that technical communicators be mindful of this history and for users to stay critical about what surveys claim to measure.

Additionally, this thesis' analysis of numeric rhetoric echoes feminist psychologists' criticisms of positivist methods in research fields like personality psychology (Marecek, 2002). The assumption that numbers can be used to quantify social experience goes largely unchallenged in a variety of contemporary medical contexts. Encouraging users to fill out surveys with numeric scoring systems can obscure the question of whether this information is reliable or relevant to what the survey says it is measuring. While it may not be the technical

communicator's job to have a critical grasp of quantitative methods in the social sciences, it is their responsibility to be mindful of the way that numerical rhetoric is employed in their design.

Suggestions for future research

Despite important work on the U.S. census (Balzhiser et al., 2019) and voting registration forms (Jones & Williams, 2018), the history of surveys as a form of technical communication has remained an underexplored area in the field. Historical work of this kind can demonstrate how technical communicators can better attune themselves to the way that their design practices may perpetuate or disrupt patterns of oppression. This thesis' focus covers only three surveys from 1939-1963 in the American context, but work extending into other historical contexts and locations could further flesh out these histories.

While historical work can critically inform the kind of design work technical communicators do today, I would be interested in seeing interdisciplinary work on deceptive numeric rhetoric related to contemporary medical surveys. A team of scholars that could engage the philosophy of science, rhetorical analysis, and technical communication could offer more grounded and actionable practical takeaways that I alone can make with historical methods.

Final takeaways

Surveys remain a popular way that practitioners and lay people alike take inventory on and make broader assessments about their relationships, well-being, and health practices. While frequently treated as objective documents capable of capturing quantitative truths, these documents fundamentally embody their creators' implicit biases, assumptions, and values about the world. As illustrated through historical analysis, marriage compatibility surveys reflect specific cultural ideals related to gender, race, religious identity and socioeconomic status, reinforcing norms that privilege certain users over others. Surveys do not merely record objective

reality, but actively shape lived experiences by the ways in which their results are used to take action. Technical communicators have an ethical responsibility to remain critically aware of how design choices—including question wording, scoring systems, and underlying assumptions about users—can perpetuate or challenge systemic biases. Recognizing surveys as powerful technologies that construct rather than merely represent truth can lead to more equitable and inclusive design practices across the field of technical communication.

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