Effect of cross gender identity on recognition memory and purchase intention of gender congruent versus gender neutral products

A thesis submitted in the partial fulfilment of the requirement for the degree of

MASTER OF ARTS IN PSYCHOLOGY

Submitted By: Anushka Lalwani (862202008)

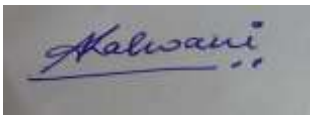
Under The Supervision And Guidance Of:

Dr. Richa Nigam

Thapar School of Liberal Arts & Science Thapar Institute of Engineering and Technology, Patiala.

Certificate

This is to certify that the dissertation entitled “Effect of cross gender identity on recognition memory and purchase intention of gender congruent versus gender neutral products .” submitted by Anushka Lalwani (862202008) in the partial fulfillment of the requirement for the award of the degree of Master of Arts in Clinical Psychology, to Thapar Institute of Engineering and Technology is a record of a student's own work carried out by her under my guidance and supervision. The report has not been submitted for any other degree or certificate award in this or any other university or Institute. (Anushka Lalwani) This is to certify that the above statement made by the student concerned is correct and true to the best of my knowledge.



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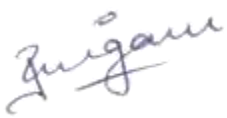

(Dr.Richa Nigam)
Thapar School of Liberal Arts and Social Sciences Thapar Institute of Engineering and Technology, Patiala

Candidates Declaration

I, hereby declare that the work being presented in the thesis titled "Effect of cross gender identity on recognition memory and purchase intention of gender congruent versus gender neutral products" in the partial fulfillment of the requirement for the award of the degree of Master of Arts in Clinical Psychology, Thapar School of Liberal Arts and Sciences, Thapar Institute of Engineering and Technology, Patiala, India. The content in this dissertation has not been submitted to any other university or institute for the award of any other degree.

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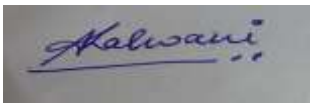

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(Anushka Lalwani)
(862202008)
M.A. Psychology

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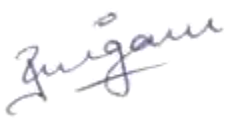

Dr.Richa Nigam
Thapar School of Liberal Arts and Sciences Thapar Institute of Engineering and Technology, Patiala

Declaration

I, Anushka Lalwani (862202008), a student of M.A. Psychology (2022-2024), Thapar School of Liberal Arts & Sciences, Thapar Institute of Engineering and Technology, Patiala, have completed the project entitled,“Effect of cross gender identity on recognition memory and purchase intention of gender congruent versus gender neutral products ”

Date- 20/05/2024

M. A. Psychology (2022-2024) Thapar School of Liberal Arts & Sciences,
Thapar Institute of Engineering and Technology, Patiala, Punjab

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ABSTRACT

The present study investigates the effect of cross gender identity on consumer memory and purchase intention for gender congruent-incongruent versus gender neutral products. The deep encoding hypothesis is a theory that suggests that when we learn and remember information, it is processed and encoded at multiple levels of depth. This depth of processing can affect the strength and longevity of the memory .This experiment was designed in E-prime .The participant was called in the laboratory and made to sit comfortably. After obtaining informed consent, the participants were briefed on the task which was divided into two sessions: a practice session and an experimental session. The presentation duration for stimuli in the practice session mirrored that of the experimental session. The stimuli covered eight distinct product categories such as perfume, wallet, face cream, shoes, clothes, watch, sunglasses and shampoo. Following each advertisement in the practice stage, participants responded to a product inquiry display where participants had to report the content of the advertisement indicating immediate memory. The practice session concluded with a 20-second break, followed by the commencement of the experimental session, during which written instructions were provided. In the experimental session, participants were exposed to a total of 30 advertisements one at a time, (including 10 gender stereotype-congruent, 10 gender stereotype-incongruent, and 10 neutral advertisements). Notably, 15 advertisements from the training stage were reintroduced, alongside 15 newly designed advertisements. Following the presentation of each advertisement, participants indicated whether they recognized the advertisement from the training stage by pressing "Y" for yes or "N" for no indicating “recognition memory”. After this, participants were asked to mention their purchase intention for the advertisement on a 7-point rating scale. The inquiry was framed as follows: "After viewing the

advertisement, to what extent would you consider choosing the product?" Participants responded on a scale from 1 to 7, where 1 denoted "strongly disagree" and 7 signified "strongly agree." After the experiment the Participants were also asked to fill Blanchard and Blanchard cross gender identity Questionnaire .One hundred and twenty individuals participated in the study.To determine the outcomes for the collected data, descriptive statistics, the T test, and ANOVA were computed.The results showed that there was significant interaction between the product type and Cross gender Identity.

Keywords: Cross-gender identity, Schema congruence, Deep Encoding Hypothesis, Gender neutral products, Consumer decision making

CHAPTER 1

Introduction

Each person interprets the world using a set of categorical rules, or scripts. New data is evaluated based on how closely it adheres to the rules or schema. These ideas are helpful for predicting and analyzing events that happen in our environment. Information that does not fit within these schemas may be misinterpreted or not understood at all. This explains why readers find it challenging to understand a book about a topic they are unfamiliar with, even if they comprehend the meaning of every word in the paragraph.

1.1 Consumer Research: A brief overview

As a result of shifting gender stereotypes, which has led to a huge development in the dismantling of traditional conventional gender roles, ideas and values have been altering substantially as society continues to advance. According to numerous writers, the

The sex roles that were in place around the 1980s were altered by the increase in women participating in work-life balance (Debevec & Iyer, 1986a; Lindner, 2004). The acceptance of having two providers in the family and the possibility for both members to work and earn a living have led to a shift in the stereotyped gender roles associated with men (Debevec & Iyer, 1986a). Gender norms are viewed as a means of self-expression in the postmodern society, as highlighted

by Kacen (2000). It is now possible for men and women to be viewed as equal consumers because to the postmodern era's restructuring of the consuming culture (Kacen, 2000).

Nonetheless, as cross-gender product advertising has grown, gender preconceptions today are becoming more fractured (Frith, 2016). Advertising has been cited as one of the factors sustaining traditional gender concepts. (Chu, Lee and Kim, 2016). Today's masculinity can be viewed as fragmented rather than oozing from a lack of masculinity (Hakala, 2006), as more and more men are portrayed in advertisements in a way that deviates from the common path of gender stereotyping (Lien, Chou & Chang, 2012). Researchers Elliott & Elliott, 2005) therefore propose that men may identify with ads better when they see pictures of people who more closely resemble average Joes. While ads featuring athletic alpha males were appreciated, men did not identify with them. Apart from men, women's gender roles in the commercial have changed (Del Saz-Rubio 2019). Gone is the image of the domestic goddess; instead, women are now portrayed as belonging to roles that can be viewed as male-dominant.

The demand for gender-neutral items has increased as a result of gender identities moving away from traditional stereotypes and towards more liberal ones, as well as the growing negative portrayal of gender tropes in media. Marketing professionals can engage in social responsibility by showcasing non-stereotypical ads, which may lead to minor shifts in how society perceives gender stereotypes (Chu, Lee & Kim, 2016). To stop gender stereotyping from being used extensively in marketing and advertising, the European Union has modified its ethical rules (Grau & Zotos, 2016). Given that traditional gender stereotyped commercials are becoming less common as a result of more stringent laws and public pressure, this highlights the necessity for study on gender-neutral ads (Grau & Zotos, 2016). More experimental studies are required because content analysis, which has accounted for the majority of previous research on the effects of culture on

advertising, is unable to fully explain the range of potential patterns arising from cultural differences in advertising (Saleem, 2017).

1.2 Schemas

Understanding information requires the use of schemas. They give data organization and interpretation a framework and structure, which helps us make sense of complex information. Schemas assist us in developing a cohesive and logical understanding of the data by outlining the connections between various data items. These frameworks are necessary for efficient information management, whether they are database-based, web-based, or cognitive in nature and are used to organize information. Introduced by Bartlett (1932), the concept of schematic processing has recently gained popularity among social psychologists as a cognitive framework to investigate a variety of phenomena, including stereotyping (Linville & Jones, 1980), attraction (Tesser & Reardon, 1981), and attitude change (Wyer & Hartwick, 1980). Consumer research also utilizes schemas while promoting their products or services and have suggested a crucial influence of the same on consumer's product choices and memory (Flaherty & Mowen, 2010).

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1.2.1 Effect of Schema on memory

The notion of schema congruency and its impact on memory has long captivated memory and cognitive psychology. Congruence between new information and pre-existing schemas is proven to increase memory retention .Schemas play a crucial role not just in understanding information, but also in deciphering how that information is conveyed. Text structures can manifest schemata, as demonstrated by Driscoll (1997) and Halliday & Hassan (1989). Readers utilize their mental

frameworks of text (such as narrative, compare/contrast, cause/effect, etc) to aid in comprehending the information presented in the text. The schema, which represents the way information is presented, can also be influenced by cultural factors. There are important ramifications for our comprehension of memory function and how past experiences and information can impact it, stemming from this phenomena called the schema congruency effect. More often than not, memories that contradict one's schema can be effectively retrieved thanks to the cognitive system (Graesser et al., 1980; Schmidt, 1991; Erdfelder and Bredenkamp, 1998). To put it simply, extraordinary or unusual events are more likely to be recalled than typical or everyday ones. One explanation is that information irrelevant to goals is coded relatively briefly due to mental schemas (Sweegers and Talamini, 2014; Sweegers et al., 2015). There are significant effects on memory and cognition from this impact, which has been the focus of much research formation that meets these two requirements is more memorable and stands out. According to Clore's (1982) observations, cognitive transformation can occur when unorthodox statements require more cognitive processing, which makes them easier to remember. Therefore, conflicting information can cause a cognitive framework to be abandoned or modified. On the other hand, in accordance with the model proposed by Taylor and Crocker (1981), the schema either treats incongruencies as exceptional circumstances and develops subcategories inside it, or it filters out material that is irrelevant or does not fit. This response to discrepancies prevents the schema from being invalidated.

1.3 Schema congruence and the Deep Encoding Hypothesis

The "Deep Encoding Hypothesis" suggests that encoding at several depth levels is necessary for the process of learning and memory This depth of processing can affect the strength and longevity of the memory On the basis of the deep encoding hypothesis previous researchers

aimed to check product and model incongruence and congruence effects on memory. Based on this, Shih-Yu-Lo et al., (2020) explored the effect of gender stereotypes on the memory of advertisements. In particular, they tested recognition memory for real (Experiment 1) and fabricated (Experiment 2) advertisements, which could be congruent or incongruent with gender stereotypes. In congruent advertisements, a female endorser presented a traditionally considered feminine product or a male endorser presented a traditionally considered masculine product, whereas the gender-product type matching reversed in incongruent advertisements. The results revealed that the participants' memory performance for stereotype-incongruent advertisements was higher than for congruent ones. In the same study, the event-related potential (ERP) recordings in Experiment 3, observed larger positive amplitudes for stereotype-incongruent advertisements than for congruent advertisements on the left parietal sites, suggesting a deeper encoding process for stereotype-incongruent information than for stereotype-congruent information. Overall, they found better memory for gender incongruent but better purchase intention for gender congruent products.

This suggests that the resulting memory's power and longevity are influenced by the depth with which information is processed. This process is significantly aided by mental schemas, or conceptual frames in our minds. It is believed to require more cognitive work to encode schema-incongruent information—knowledge that does not fit into our preexisting mental schemas—than schema-congruent information. Schema theory can only predict inconsistently how much of the information that is schema-incongruent can be influenced in light of this knowledge. Schemas are filters that keep out information that does not fit into preexisting mental frameworks, according to Taylor and Crocker's (1981) theory. This perspective may lead to the

creation of subcategories inside the schema when encoding schema-incongruent data is seen as an anomaly or an unusual circumstance. The schema is shielded from being rendered invalid by fresh information by this adaptive response to disparities. Incongruent information may be absorbed more deeply because of its uniqueness, according to the finding that gender-incongruent items had better recall (Shih-Yu-Lo et al., 2020). Nevertheless, the way that incongruence affects cognitive frameworks varies based on the cognitive style of the person and how they reconcile or modify their preexisting schemas in order to accept the contradictory information. Therefore, it is crucial to assess the processing of schema-incongruent data while implementing these principles in the context of unisex products and product-gender congruence. The question left to be explored is whether a product's features that align or don't align with preexisting gender schemas affects memory, cognitive processing, and purchase intentions is brought up, along with how schema theory relates specifically to goods meant for men and women.

1.4 Schemas and product-advert stereotypicality

When schemas are applied to social situations, stereotypes are often produced. Consider the common associations between the term "doctor" and concepts such as "white robe," "middle-aged," and "male." All these linked notions make form the schema and stereotype of the "doctor". Since schema-incongruent information requires more cognitive resources to encode and more labour to process, it is better retained in memory. Several research (Bargh et al., 1996; Chen & Bargh, 1997; Dijksterhuis & van Knippenberg, 1998) have demonstrated that even when participants are not aware of the priming circumstances, priming specific social categories can

result in behaviours congruent with those categories. According to these theories, behavioural reactions are mentally represented and can be activated by relevant situational signals and environmental cues without cognitive mediation, just like other social constructs like attitudes and trait concepts (Bargh et al., 1996; Chen & Bargh in 1997). It is believed that this process occurs spontaneously because it is frequently exposed to paired stimuli (such as characteristics and races) and receives recurrent responses to those stimuli (Devine, 1989; Logan, 1988).

1.5 Gender neutral industry

An industry that is gender-neutral aims to remove prejudices and obstacles based on gender, providing equal opportunity, treatment, and compensation for all people, irrespective of their gender identity. The notion involves establishing work settings that are inclusive and free from discrimination or gender stereotypes, with respect to roles, responsibilities, and career achievements. Growing awareness of and support for diversity, equality, and inclusion (DEI) has accelerated the movement towards gender-neutral industries.Gender neutrality refers to people in general, not simply men and women, according to Cambridge Dictionary (2020a). According to Schmitt (1992), skincare products are multipurpose, with some serving both cosmetic and medicinal objectives. Pharmacological properties are examples of functional components found in gender-neutral skincare products that are not gender-specific. Contemporary beauty products, according to Larissa Jensen, a senior beauty analyst at a market research company, are more genderless, inclusive, sustainable, and clean—all attributes that are important to younger consumers (Carefoot, 2020). It's possible that guys are more inclined to test skincare products because NPD Group indicates that sales of skin care items have increased while sales of

cosmetics have fallen. Unlike the cosmetics industry, the skincare sector lacks a "gendered focus" (Carefoot, 2020). According to Chu, Lee, and Kim (2016), there is a shift from traditional gender standards to more flexible ones as evidenced by the use of male models to promote feminine products. More than two-thirds of US men between the ages of 16 and 24 are interested in or have used genderless cosmetics, which is consistent with the emergence of Gen Z, according to a Mintel study (Arnett, 2019). Commercials by Karl Lagerfeld, Yves Saint Laurent, and Kenzo all include mixed-gender stereotypes and unisex designs. As Kasriel Alexander (2011) notes, well-known producers have expanded their product lines to include unisex clothing lines. Products that are the same for both genders but have different packaging are becoming more common in the fragrance market. According to Kasriel-Alexander (2011), this is consistent with the notion that choosing cosmetics should be based more on personal tastes than gender. The skincare industry should concentrate on particular skin types rather than gender, says dermatologist Dr. Mahto of Harley Street's Skin 5 (Simon, 2018). Simon (2018) says that narrow binary categorization and the absence of neutral options are issues. Companies can build experiences and products for a varied target audience that challenge binary classifications and traditional gender stereotypes by adapting to this transformation, which offers a substantial financial opportunity. According to Kenney (2020). Marketing and advertising appear to be significantly impacted by gender identity, according to prior study. With the advent of more flexible definitions of gender, the idea of gender has transcended traditional binary and stereotyped roles that used to classify people. As the importance of gender equality has grown, gender-neutral products have become more and more popular. It's anticipated that this pattern will hold. In this regard, it becomes imperative to examine deep encoding hypotheses in the context of gender neutral products as well.

1.6 Gender identity research

The measurement of gendered psychological traits in men and women has been employed in consumer research (Kahle and Homer, 1985; Gentry and Doering, 1979; Stern, 1988) are examples of this. However, only in the 1990s did the phrase gender identity become more widely used (Fischer and Arnold 1994; Gainer 1993; Kempf, Palan, and Laczniak 1997; Palan, Areni, and Kiecker 1999, 2001).Because "gender" and "sex" are frequently used interchangeably in academic and media discourse, this leads to an uneven application of terminology. In the field of psychology, Deaux (1985) acknowledged that this dispute was still ongoing, even if it was becoming increasingly common to use the terms "sex" and "gender" to refer to socially constructed psychological traits connected with biological sex. This literature review has embraced that convention. For this reason, "sex" refers to a person's biological sex, regardless of gender. According to Lerner (1986), gender is a collection of societal roles. Approximately concurrently with the development of a knowledge of their biological sex, children also grow aware of gender norms that are generated from culture; for instance, they are aware of both positive and negative stereotypes regarding their own sex (Kuhn, Nash, and Brucken 1978). Gender acts as an organizing principle that filters a variety of experiences and perceptions of the self and other, making it one of the earliest and most important aspects of the self-concept, according to Spence (1985).

1.7 Theoretical background of gender identity

Gender identity is founded on masculine and feminine psychological qualities, which are linked to instrumental/agentic and communal/expressive inclinations, respectively, in Western civilizations (Parsons and Shils, 1952). The definition of instrumental/agentic tendencies is "concern with the attainment of goals external to the interaction process" (Gill et al. 1987, p.389). Masculine characteristics include independence, aggressiveness, reason, logic, competition, and an emphasis on personal objectives (Cross and Markus 1993; Easlea 1986; Keller 1983; Meyers-Levy 1988; Weinreich-Haste 1986). However, a predisposition towards communal/expressive inclinations "gives primacy to facilitating the interaction process itself" (Gill et al. 1987, p. 380). Rather than "being emotional," expressiveness refers to personality traits that are centred on actively interacting and forming relationships with others. It entails recognising and managing one's own and other people's emotions. Feminine qualities include understanding, nurturing, caring, responsibility, considerateness, sensitivity, intuition, passion, and a focus on group objectives (Cross and Markus 1993; Easlea 1986; Keller 1983; Meyers-Levy 1988; Weinreich-Haste 1986).According to early gender identity studies, there is just one bipolar dimension of masculinity and femininity, meaning that they are opposites on the same continuum (Terman and Miles 1936). Furthermore, it was thought that gender identity was limited by cultural norms of proper masculine and feminine behaviours and associated with biological sex (Constantinople 1973). But the unidimensional model's presumptions were called into question when cultural preconceptions evolved. Because of this, a two-dimensional gender identity model was created, in which masculinity and femininity were seen as two distinct, orthogonal dimensions that coexisted within a person to differing degrees (Gill et al., 1987). This understanding of masculinity and femininity is still the norm .

1.8 Cross gender identity and consumer’s decision making

Identification as belonging to a gender other than the one one ascribed to oneself at birth is known as cross-gender identity. People who identify as transgender, non-binary, genderqueer, or who are otherwise gender non-conforming and defy conventional ideas of male and female are among the many experiences and identities that are included in this phenomenon.The following are important facets of cross-gender identity: 1. Gaining an understanding of gender identity The sincerely held belief that one is male, female, neither, or something else entirely is known as one's gender identity. The sex allocated at birth may correspond with it or not . 2 Different Experiences: There are many different types of cross-gender identities. Individuals who identify as non-binary may identify outside of the conventional gender binary, whereas transgender people may change their gender identity. Over time, gender identity changes may occur for those who identify as genderfluid .Important facets of transgender identity consist of:1. Gaining Knowledge on Gender Identity: A strong sense of being male, female, a combination of both, neither, or something else entirely is known as gender identity. That could match or not match the sex assigned at birth.2. A Variety of Experiences: Diverse cross-gender identities exist. While non-binary people may identify as something other than gender binary, transgender people may change their gender identity. Over time, those who identify as genderfluid may see changes in their gender identification.3 Transitioning: A lot of people who identify as cross-gender go through a process called transitioning, which can include legal actions (updating identification documents), medical interventions (like hormone therapy or surgeries), and social modifications (like name, pronoun, and look).4. Difficulties and Barriers: People who identify as cross-gender frequently encounter severe difficulties, such as stigma, discrimination, lack of legal recognition, and restricted access to healthcare. Their general well-being, financial prospects, and mental health may all be impacted by these obstacles.5. Action and Assistance: More advocacy and

awareness campaigns have improved the support networks available to transgender people. This covers access to gender-affirming healthcare, inclusive workplace and school practices, and legal protections.6. Impact on Culture and Society: Cross-gender identities are acknowledged and accepted, and this helps to further cultural movements in favor of diversity and inclusivity. The attitudes of society are progressively changing, however the rate of change differs greatly among various areas and groups.In order to create an inclusive society where everyone can live authentically and without fear of prejudice, it is essential to comprehend and appreciate cross-gender.More feminine consumers were shown to be more involved in the Christmas gift-shopping process by Fischer and Arnold (1990), who looked into the connection between consumers' gender identity and their holiday gift-giving. Palan, Areni, and Kiecker (2001) looked at the connection in a separate investigation. Results from the study indicated that when it came to purchasing gifts, men and women were more object-focused and individual-focused, respectively. Male customers remembered their experiences providing gifts more vividly than female consumers, according to another study finding. Gender role identity and its impact on consumers' gift-buying behaviour were examined by Kılıçer, Boyraz, and Tüzemen (2016). The study's findings showed that undifferentiated consumers purchased more presents while androgynous consumers bought fewer. Therefore, it becomes important to also explore the influence of consumer’s cross gender identity and product conguence versus neutrality on their memory and purchase intention for these products.

In other words, whether stereotyped instructions in advertisements could affect recall and intention to buy was something the current study aimed investigated as a function of individula’s cross gender identity. An immediate recall task was used in the experiment as part of training phase for the, participants who were shown a series of gender congurent, incongruent or neutral

advertisements. In testing phase, the same participants were asked to determine whether a particular advertisement was for a new product (i.e., one they had not seen during training) or an old one (i.e., one they had seen during training) establishing recognition memory for each product type. This was eventually followed by participants listing their purchase intention on the products of the testing phase on a five point likert scale (1 indicating not at all to 5 indicating highly likely). Earlier research, grounded in the deep encoding theory, investigated the effects of model and product congruence and incongruence on memory According to Wyer and Gordon (1982), information that is not consistent with an active schema is considered distinctive and may be digested thoroughly. These two criteria make such information stand out and more likely to be remembered. Clore (1982) observed that if unconventional statements need greater cognitive processing (and hence, are more easily remembered), it creates the conditions for cognitive transformation. Hence, the presence of contradictory information may lead to the abandonment or alteration of a cognitive framework. Alternatively as shown in a recognition challenge, the cognitive system allows for more frequent effective retrieval of memories that are at odds with one's schema (Graesser et al., 1980; Schmidt, 1991; Erdfelder and Bredenkamp, 1998). Simply put, exceptional or abnormal occurrences are more remembered than regular or average happenings. . The purpose of this study is to determine whether consumers with varying degrees of Cross Gender Identity (CGI) are more likely to remember and plan to buy unisex products than gender congruent-incongruent products. The study bears implications for the deep encoding hypothesis in the context of these products.

CHAPTER 2

Review of Literature

Superficial representations of gender are prevalent in the manner that items are marketed to consumers (Åkestam et al., 2021; Atkinson et al., 2022). Men and women are impacted by those commercial messages, but they can also have and lead to a rise in self-objectification in both sexes, for example; a large portion of the research focuses on stereotypes of women. One reason for this is that social discourse about female inequality is more prevalent (Åkestam et al., 2021). A lot of research still challenges the stereotypical elements in advertisements, despite the fact that gendered content has evolved over time and frequently now promotes feminine aspects related to empowerment rather than sexualizing women (e.g. Atkinson et al., 2022; Middleton and Turnbull, 2021).

According to Stone (1962, "identity" relates to "what and where the person is in social terms." A person's identity is defined by their construct (Gordon, 1968, referenced in Cheek & Cheek, 2018). When someone is treated as a social object by others, that person's identity is determined by giving him the same labels of identification that he declares or takes on (Stone, 1962). According to Reed et al. (2012), p. 310, identity is defined as "any category label to which a consumer self-associates, either by choice or endowment, that is amenable to a clear picture of what the person in the category looks like, thinks, feels, and does." People identify themselves in a social setting via their claims to social categories, in addition to using features or attributes to represent themselves as distinct individuals (Deaux, Reid, Mizrahi & Ethier, 1995). Individuals' perceptions of their identities can encompass a variety of elements, such as personal connections, labels pertaining to social roles, group memberships, displays of individual distinctiveness,

Gordon, 1968 quoted in Cheek & Cheek, 2018, and demographic classifications (Deaux et al. 1995).

According to Reed et al. (2012), consumers identify with brands, products, and consumption patterns that correspond to the labels assigned to their categories. With the aid of placements and announcements that evoke apparent symbols, identity eventually becomes a meaning of oneself (Stone, 1962). According to Reed et al. (2012), people may pay more attention to stimuli related to their identity and favour brands that are associated with it. According to Reed et al. (2012), they might also exhibit favourable responses to ads featuring spokespersons who fit the ideal identity, choose media that supports the identity, and take on acts associated with the identity.

Companies must comprehend the identities customers give to themselves in order to market their products, as the self-identity consumers have of themselves predicts their purchase intentions (Bai, Gong & Wang, 2019; Carfora, Cicia, Caso, Cavallo, De Devitiis, Del Giudice, Nardone & Visceccia, 2019; Han, Hua, Hu & Prentice, 2019). Additionally, customers become more engaged and their purchase intentions are impacted when they identify with a particular community and its members (Bai, Gong & Wang, 2019; Han et al. 2019). Cultural and social variables can cause identities to shift throughout time (Reed et al. 2012). The most important social identity, according to Connel (1990 referenced in Fugate & Phillips, 2010), is one's gender identification.

individuals tend to identify with their environment, including the individuals they interact with. Consumer identity can be used to forecast their purchase intention since brands that are perceived as comparable to their own identity are developed via a variety of product purchases.

Businesses need to acknowledge the identities that their customers relate to and the individuals they associate with.

The development of a person's gender identity is influenced by how they encounter the ideals of masculinity and femininity. One major aspect in this process is how that person perceives themselves as a man or a woman (Kacen, 2000). Because of its psychological structure,as an accomplishment that is idiosyncratic in nature and subject to temporal and contextual variations (Kacen, 2000).

Brands should be aware of and responsive to the trend that millennials and post-millennials exhibit reduced levels of bias with regard to gender identity-related concerns, according to earlier study (Laughlin, 2016). In reality,making a stance on matters like inclusivity for gender as When millennials are choosing which companies and organisations to support or adopt, they consider social issues as well as other problems they care about (Read et al., 2019; Snyder, 2015).

Chapter 3
Research Gap

3.1 Research Gap

Cross Gender Identity has not been examined in the context of deep encoding hypothesis and Deep encoding hypothesis has not been tested in the context of unisex products

3.2 Objectives

The objective of this study is to see cross gender identity and gender neutral products in the context of deep encoding hypothesis products .

3.5 Hypothesis: Cross Gender Identity will not influence the Product Choice.

Chapter 4
Methodology

4.1 Sample

The research sample comprised a total of 120 students (Mean age in years:22.25) who were enrolled in Thapar university patiala. Out of which majority of the students belonged to the engineering field and the rest of them belonged to the humanities department .

4.2 Sample characteristics

The sample consisted of male and female participants of Thapar university patiala .The mean age of the participants was and the sample consisted of undergraduate students .50 percent of the sample was male and 50 percent of the sample was female .

4.3 Tools required

E-Prime software was used for the presentation and control of the stimulus. Blanchard and Blanchard Cross Gender Identity Questionnaire was used and SPSS and excel was used for data analysis.

4.4 Variables

•Independent variable: Cross Gender Identity (High, Low), Product Congruence (Congruent, Incongruent, Neutral)

•Dependent variable: Immediate memory, Recognition memory, Purchase Intention

4.5 Design

Mixed design

4.6 Procedure

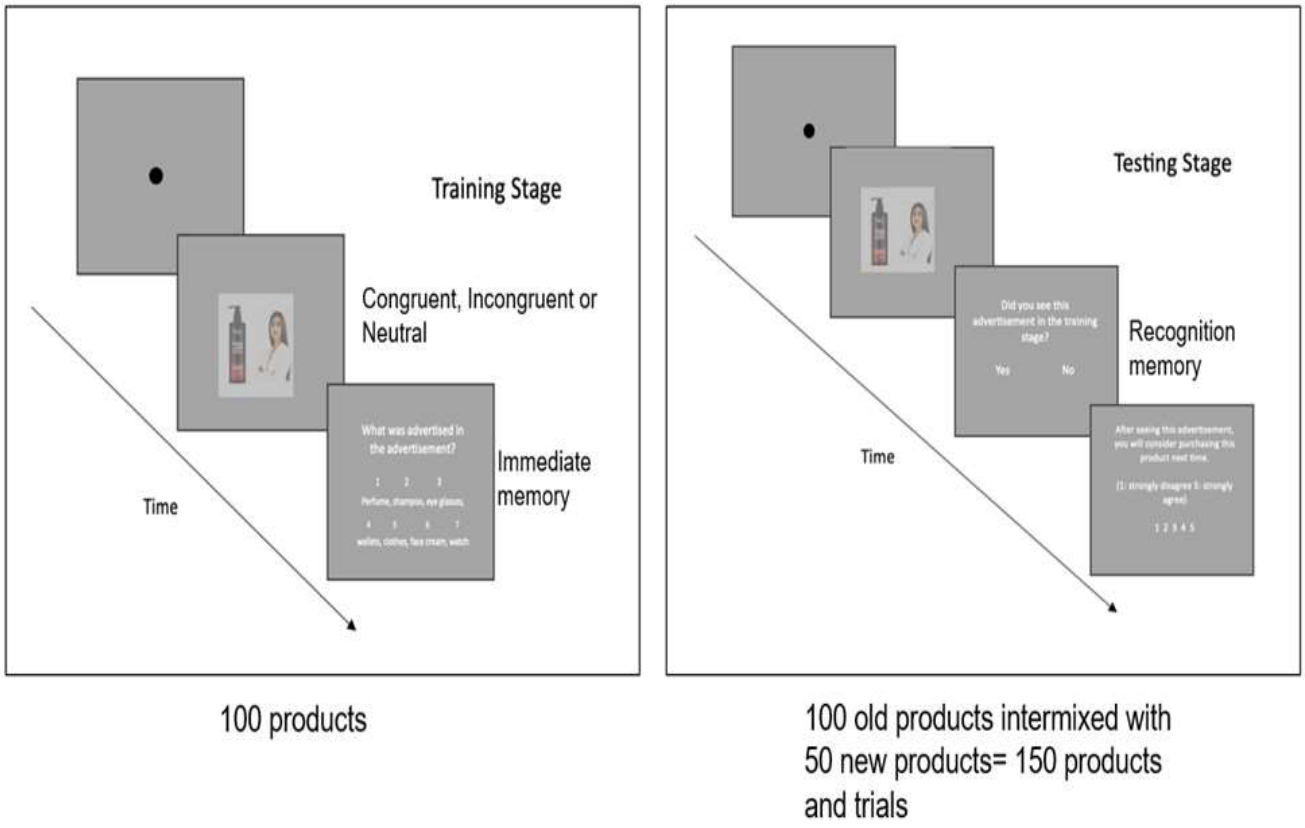
This experiment was designed in E-prime .The participant was called in the laboratory and made to sit comfortably. After obtaining informed consent, the participants were briefed on the task which was divided into two sessions: a practice session and an experimental session. The presentation duration for stimuli in the practice session mirrored that of the experimental session. The stimuli covered eight distinct product categories such as perfume, wallet, face cream, shoes, clothes, watch, sunglasses and shampoo. Following each advertisement in the practice stage, participants responded to a product inquiry display where participants had to report the content of the advertisement indicating immediate memory. The practice session concluded with a 20-second break, followed by the commencement of the experimental session, during which written instructions were provided. In the experimental session, participants were exposed to a total of 30 advertisements one at a time, (including 10 gender stereotype-congruent, 10 gender

stereotype-incongruent, and 10 neutral advertisements). Notably, 15 advertisements from the training stage were reintroduced, alongside 15 newly designed advertisements. Following the presentation of each advertisement, participants indicated whether they recognized the advertisement from the training stage by pressing "Y" for yes or "N" for no indicating "recognition memory". After this, participants were asked to mention their purchase intention for the advertisement on a 7-point rating scale. The inquiry was framed as follows: "After viewing the advertisement, to what extent would you consider choosing the product?" Participants responded on a scale from 1 to 7, where 1 denoted "strongly disagree" and 7 signified "strongly agree" (See figure 1 below).

4.7 Experiment Condition:

The current study aimed to investigate the influence of varying levels of CGI and product type on consumer's memory and purchase intention. Advertisments which were designed to be either congruent, incongruent or neutral to gender stereotypes. In the incongruent advertisements, the gender of the model and the endorsed product was reversed (e.g. a male endorser promoting a feminine product and vice versa), while in the congruent advertisement, a female endorser promoted a product traditionally associated with femininity, or a male endorser promoted a product traditionally associated with masculinity, in the gender neutral condition both males or a female model endorsed the same product in different trials. Along with varying levels of consumer's CGI, The current study also examines product congruence as separate in males and females (unlike previous research which collapsed product-model congruence between the two genders).

Figure 1 -



Trial Structure

Chapter 5

Results

Statistical analysis: Three two-way Anovas were computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex -UNI).

Post hoc test were computed computed for significant interaction

Table 1

Repeated measure Anova Descriptive StatisticsTwo-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex -UNI) for immediate memory.

	CGI Category	Mean	Std. Deviation	N
FC1	Low	94.61	8.882	62
	High	94.83	8.427	58
	Total	94.72	8.630	120
FI1	Low	96.55	6.767	62
	High	93.83	13.210	58
	Total	95.23	10.436	120
MC1	Low	88.95	8.420	62
	High	91.28	7.702	58
	Total	90.08	8.131	120
MI	Low	93.03	9.195	62
	High	91.83	9.921	58
	Total	92.45	9.532	120
UNI	Low	92.52	6.842	62
	High	97.34	5.263	58
	Total	94.85	6.568	120

Table no. 1 shows descriptive statistics of participants for Cross Gender Identity Categories (CGI) There were 120 participants in total. FCI (Female Congruent) came to be 94.61 (8.88) For low CGI, 94.83,(8.42) for high CGI , 94.72,(8.63) for total respectively. For FI (Female Incongruent)came to be 96.5 (6.76) For low CGI, 93.83,(13.21) for high CGI ,95.23,(10.43)for total respectively. For MC1 (Male congruent)came to be 88.95 (8.42) For low CGI, 91.28,(7.70) for high CGI ,90.08,(8.13)for total respectively. For MI (Male Incongruent)came to be 93.03 (9.19) For low CGI, 91.83,(9.92) for high CGI ,92.45,(9.53)for total respectively. For UNI (Unisex) came to be 92.52 (6.84) For low CGI, 97.34,(5.26) for high CGI ,94.85,(6.56)for total respectively.

Table 2

Two-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex - UNI) for immediate memory .

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Producttype_IM	Sphericity Assumed	2276.704	4	569.176	9.300	0.000	0.073
	Greenhouse-Geisser	2276.704	3.233	704.190	9.300	0.000	0.073
	Huynh-Feldt	2276.704	3.363	676.970	9.300	0.000	0.073
	Lower-bound	2276.704	1.000	2276.704	9.300	0.003	0.073
Producttype_IM * CGICAT	Sphericity Assumed	1056.291	4	264.073	4.315	0.002	0.035
	Greenhouse-Geisser	1056.291	3.233	326.713	4.315	0.004	0.035
	Huynh-Feldt	1056.291	3.363	314.085	4.315	0.004	0.035
	Lower-bound	1056.291	1.000	1056.291	4.315	0.040	0.035
Error(Producttype_IM)	Sphericity Assumed	28886.003	472	61.199			
	Greenhouse-Geisser	28886.003	381.504	75.716			
	Huynh-Feldt	28886.003	396.843	72.789			
	Lower-bound	28886.003	118.000	244.797			

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	5236885.465	1	5236885.465	39551.862	0.000	0.997
CGICAT	71.012	1	71.012	0.536	0.465	0.005
Error	15623.853	118	132.406			

In the two way ANOVA for immediate memory, the main effect of group was not significant, $F(1, 118) = .53$, $p = 0.46$, partial $\eta^2 = 0.005$. The main effect of Product type was significant, $F(4, 472) = 9.30$, $p < 0.001$, partial $\eta^2 = 0.073$. The two way interaction between group and Producttype was significant, $F(3.233, 381.504) = 326.71$, $p = 0.004$, partial $\eta^2 = 0.035$.

Table 3

Post hoc was conducted between groups for immediate memory scores.

Variables	CGICAT	N	Mean	Std. Deviation	t	df	p
FC1	Low	62	94.61	8.882			
					-0.136	118	0.892
	High	58	94.83	8.427			
FI1	Low	62	96.55	6.767			
					1.433	118	0.154
	High	58	93.83	13.210			
MC1	Low	62	88.95	8.420			
					-1.574	118	0.118
	High	58	91.28	7.702			
MI	Low	62	93.03	9.195			
					0.690	118	0.491
	High	58	91.83	9.921			
UNI	Low	62	92.52	6.842			
					-4.312	118	0.000
	High	58	97.34	5.263			

Immediate memory was better for High CGI group (97.34%) than low CGI group (92.52%) , $t(118) = 4.312$, $p < .001$

Table 4

Post hoc was conducted within product types of low groups for immediate memory scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	LFC1	94.83	58.00	8.43			
					0.47	57.00	0.64
	LFI1	93.83	58.00	13.21			
Pair 2	LFC1	94.83	58.00	8.43			
					2.99	57.00	0.00
	LMC1	91.28	58.00	7.70			
Pair 3	LFC1	94.83	58.00	8.43			
					1.62	57.00	0.11
	LMI1	91.83	58.00	9.92			
Pair 4	LFC1	94.83	58.00	8.43			
					-2.23	57.00	0.03
	LUNI1	97.34	58.00	5.26			
Pair 5	LFI1	93.83	58.00	13.21			
					1.53	57.00	0.13
	LMC1	91.28	58.00	7.70			
Pair 6	LFI1	93.83	58.00	13.21			
					1.54	57.00	0.13
	LMI1	91.83	58.00	9.92			
Pair 7	LFI1	93.83	58.00	13.21			
					-1.77	57.00	0.08
	LUNI1	97.34	58.00	5.26			
Pair 8	LMC1	91.28	58.00	7.70			
					-0.35	57.00	0.73
	LMI1	91.83	58.00	9.92			
Pair 9	LMC1	91.28	58.00	7.70			
					-5.68	57.00	0.00
	LUNI1	97.34	58.00	5.26			
Pair 10	LMI1	91.83	58.00	9.92			
					-3.71	57.00	0.00
	LUNI1	97.34	58.00	5.26			

Immediate memory was Significant for for Pair 3, 9 and 10 . In pair 3 FC1products has better immediate memory (94.83) than MCI products (92.1) within low CGI group, *t* (57) = 1.62 =*p* <.001.In pair 9 MI1products has better immediate memory (91.83) than MCI products (91.28) within low CGI group, *t* (57) = -5.68=*p* <.001.In pair 10 MI1products has better immediate memory (91.83) than UNII products (97.34) within low CGI group, *t* (57) = -3.71=*p* <.001

Table 5

Post hoc was conducted within product types of high groups for immediate memory scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	HFC1	94.61	62.00	8.88			
					-1.93	61.00	0.06
	HFI1	96.55	62.00	6.77			
Pair 2	HFC1	94.61	62.00	8.88			
					4.05	61.00	0.00
	HMC1	88.95	62.00	8.42			
Pair 3	HFC1	94.61	62.00	8.88			
					1.42	61.00	0.16
	HMI1	93.03	62.00	9.20			
Pair 4	HFC1	94.61	62.00	8.88			
					1.72	61.00	0.09
	HUNI1	92.52	62.00	6.84			
Pair 5	HFI1	96.55	62.00	6.77			
					5.61	61.00	0.00
	HMC1	88.95	62.00	8.42			
Pair 6	HFI1	96.55	62.00	6.77			
					3.25	61.00	0.00
	HMI1	93.03	62.00	9.20			
Pair 7	HFI1	96.55	62.00	6.77			
					3.30	61.00	0.00
	HUNI1	92.52	62.00	6.84			
Pair 8	HMC1	88.95	62.00	8.42			
					-2.54	61.00	0.01
	HMI1	93.03	62.00	9.20			
Pair 9	HMC1	88.95	62.00	8.42			
					-2.55	61.00	0.01
	HUNI1	92.52	62.00	6.84			
Pair 10	HMI1	93.03	62.00	9.20			
					0.39	61.00	0.70

Immediate memory was Significant for Pair 2, 5,6,7,8 and 9.

Participants had better memory for F1 products immediate memory (96.55) than FC products (94.61) within high CGI group, *t* (61) = 4.05 =*p* <.001.

In pair 5 FI products has better immediate memory (96.55) than Uni products (92.52)within high CGI group, t (61) = 5.61=p <.001.

In pair 6 FI1products has better immediate memory (96.55) than MCI products (88.95) within high CGI group, t (61) = 3.25=p <.001.

In pair 7 FI1products has better immediate memory (96.55) than MII products (93.03)within high CGI group, t (61) = 3.30=p <.001.

In pair 8 Uni1products has better immediate memory (92.52) than MCI products (88.95) within high CGI group, t (61) = -2.54=p =.001.

In pair 9 MI1products has better immediate memory (93.03) than MCI products (88.95) within high CGI group, t (61) = 2.55=p =.001

Table 6

Repeated measure Anova Descriptive StatisticsTwo-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex -UNI) for recognition memory of products.

	CGI Category	Mean	Std. Deviation	N
FC2	Low	76.23	12.894	62
	High	76.71	17.014	58
	Total	76.46	14.964	120
FI2	Low	75.02	13.059	62
	High	75.84	16.782	58
	Total	75.42	14.916	120
MC2	Low	70.10	22.507	62
	High	78.19	18.649	58
	Total	74.01	21.042	120
MI2	Low	57.53	29.549	62
	High	72.69	23.246	58
	Total	64.86	27.645	120
UNI2	Low	78.53	14.126	62
	High	87.10	14.768	58
	Total	82.68	15.008	120

Table no. shows descriptive statistics of participants for Cross Gender Identity Categories (CGI) There were 120 participants in total. FC2 (Female Congruent) came to be 76.23 (12.89) For low CGI, 76.71,(17.01) for high CGI , 76.46,(14.96) for total respectively. For FI2 (Female Incongruent)came to be 75.02 (13.05) For low CGI, 75.84,(16.78) for high CGI ,75.42,(14.91) for total respectively. For MC2 (Male congruent)came to be 70.10 (22.50) For low CGI,

78.19,(18.64) for high CGI ,74.01,(21.04)for total respectively. For MI (Male Incongruent)came to be 57.53 (29.54) For low CGI, 72.69,(23.24) for high CGI ,64.86,(27.64)for total respectively. For UNI (Unisex) came to be 78.53 (14.12) For low CGI, 87.10,(14.07) for high CGI ,82.68,(15.08)for total respectively.

Table 7

Two-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex -UNI) for recognition memory .

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Producttype_RM	Sphericity Assumed	19390.703	4	4847.676	15.139	0.000	0.114
	Greenhouse-Geisser	19390.703	3.103	6249.726	15.139	0.000	0.114
	Huynh-Feldt	19390.703	3.223	6016.293	15.139	0.000	0.114
	Lower-bound	19390.703	1.000	19390.703	15.139	0.000	0.114
Producttype_RM * CGICAT	Sphericity Assumed	4497.663	4	1124.416	3.511	0.008	0.029
	Greenhouse-Geisser	4497.663	3.103	1449.621	3.511	0.014	0.029
	Huynh-Feldt	4497.663	3.223	1395.476	3.511	0.013	0.029
	Lower-bound	4497.663	1.000	4497.663	3.511	0.063	0.029
Error(Producttype_RM)	Sphericity Assumed	151144.570	472	320.222			
	Greenhouse-Geisser	151144.570	366.113	412.836			
	Huynh-Feldt	151144.570	380.318	397.417			
	Lower-bound	151144.570	118.000	1280.886			

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	3352735.490	1	3352735.490	6449.474	0.000	0.982
CGICAT	6578.763	1	6578.763	12.655	0.001	0.097
Error	61341.870	118	519.846			

The main effect of group was statistically significant, $F(1, 118) = 12.65$, $p = 0.001$, partial $\eta^2 = 0.097$.

The main effect of product type was significant, $F(4, 472) = 15.13$, $p < 0.001$, partial $\eta^2 = 0.11$.

The two way interaction between group and product type was significant, $F(4, 472) = 3.51$, $p = 0.008$, partial $\eta^2 = 0.02$.

Table 8

Post hoc was conducted between groups for memory Recognition scores.

Variables	CGICAT	N	Mean	Std. Deviation	t	df	p
FC2	Low	62	76.23	12.894			
					-0.175	118	0.861
	High	58	76.71	17.014			
FI2	Low	62	75.02	13.059			
					-0.303	118	0.762
	High	58	75.84	16.782			
MC2	Low	62	70.10	22.507			
					-2.137	118	0.035
	High	58	78.19	18.649			
MI2	Low	62	57.53	29.549			
					-3.109	118	0.002
	High	58	72.69	23.246			
UNI2	Low	62	78.53	14.126			
					-3.249	118	0.002
	High	58	87.10	14.768			

The *Post hoc* results showed that Memory recognition was better for High CGI group (78.19%) than low CGI group (70.10%) for Male congruent products , t (118) = - 2.13, p =.03

Memory recognition was better for High CGI group (72.69%) than low CGI group (57.53%) for Male incongruent products , t (118) = - 3.10, p =.002

Memory recognition was better for High CGI group (87.10%) than low CGI group (78.53%) for Male unisex products , t (118) = - 3.24, p =.002

Table 9

Post hoc was conducted within product types of low groups for memory Recognition scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	LFC1	76.71	58.00	17.01			
					0.28	57.00	0.78
	LFI1	75.84	58.00	16.78			
Pair 2	LFC1	76.71	58.00	17.01			
					-0.48	57.00	0.63
	LMC1	78.19	58.00	18.65			
Pair 3	LFC1	76.71	58.00	17.01			
					1.03	57.00	0.31
	LMI1	72.69	58.00	23.25			
Pair 4	LFC1	76.71	58.00	17.01			
					-3.88	57.00	0.00
	LUNI1	87.10	58.00	14.77			
Pair 5	LFI1	75.84	58.00	16.78			
					-0.79	57.00	0.44
	LMC1	78.19	58.00	18.65			
Pair 6	LFI1	75.84	58.00	16.78			
					0.92	57.00	0.36
	LMI1	72.69	58.00	23.25			
Pair 7	LFI1	75.84	58.00	16.78			
					-4.20	57.00	0.00
	LUNI1	87.10	58.00	14.77			
Pair 8	LMC1	78.19	58.00	18.65			
					1.88	57.00	0.06
	LMI1	72.69	58.00	23.25			
Pair 9	LMC1	78.19	58.00	18.65			
					-3.30	57.00	0.00
	LUNI1	87.10	58.00	14.77			
Pair 10	LMI1	72.69	58.00	23.25			
					-4.16	57.00	0.00
	LUNI1	87.10	58.00	14.77			

Memory recognition was Significant for for Pair 4,7,9, and 10 .

In pair 4 UNI1 products has better memory recognition scores (87.10) than FCI products (76.71) within low CGI group, t (57) = -3.88, $=p$ <.001.

In pair 7 UNI1products has better memory recognition scores (87.10) than FII products (75.84) within low CGI group, t (57) = -4.20=p <.001.

In pair 9, UNI1 products has better memory recognition scores (87.10) than MC1 products (78.19) within low CGI group, t (57) = -4.16,p <.001

Table 10

Post hoc was conducted within product types of High groups for memory Recognition scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	HFC1	76.23	62.00	12.89			
					0.46	61.00	0.65
	HFI1	75.02	62.00	13.06			
Pair 2	HFC1	76.23	62.00	12.89			
					2.09	61.00	0.04
	HMC1	70.10	62.00	22.51			
Pair 3	HFC1	76.23	62.00	12.89			
					4.35	61.00	0.00
	HMI1	57.53	62.00	29.55			
Pair 4	HFC1	76.23	62.00	12.89			
					-1.06	61.00	0.30
	HUNI1	78.53	62.00	14.13			
Pair 5	HFI1	75.02	62.00	13.06			
					1.39	61.00	0.17
	HMC1	70.10	62.00	22.51			
Pair 6	HFI1	75.02	62.00	13.06			
					4.52	61.00	0.00
	HMI1	57.53	62.00	29.55			
Pair 7	HFI1	75.02	62.00	13.06			
					-1.81	61.00	0.08
	HUNI1	78.53	62.00	14.13			
Pair 8	HMC1	70.10	62.00	22.51			
					2.69	61.00	0.01
	HMI1	57.53	62.00	29.55			
Pair 9	HMC1	70.10	62.00	22.51			
					-3.04	61.00	0.00
	HUNI1	78.53	62.00	14.13			
Pair 10	HMI1	57.53	62.00	29.55			
					-5.36	61.00	0.00
	HUNI1	78.53	62.00	14.13			

Memory recognition was Significant for for Pair 3,6,9 and 10.

In pair 3 FC1products has better memory recognition scores (76.23) than MI1 products (57.53) within high CGI group, t (61) = 4.35, p= <.001.

In pair 6 FI1 products has better memory recognition scores (75.02) than MI1 products (57.53)within high CGI group, t (61) = 4.52=p <.001.

In pair 9 UNI1products has better memory recognition scores (78.53) than MCI products (70.10) within high CGI group, t (61) = -3.04,p= <.001.

In pair 10 UNI1products has better memory recognition scores (78.53) than MII products (57.53)within high CGI group, t (61) = -5.36=p <.001.

Table 11

Repeated measure Anova Descriptive StatisticsTwo-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex -UNI) for Purchase Intention .

CGICAT		Mean	Std. Deviation	N
FC2	Low	3.977	0.9740	62
	High	4.176	1.1694	58
	Total	4.073	1.0729	120
FI2	Low	4.1373	1.22902	62
	High	4.3417	1.19342	58
	Total	4.2361	1.21120	120
MC_PI	Low	4.132	1.2081	62
	High	4.347	1.2253	58
	Total	4.236	1.2161	120
MI2	Low	3.7856	1.40880	62
	High	4.7478	1.37496	58
	Total	4.2507	1.46834	120
UNI2	Low	4.4198	1.26901	62
	High	4.8431	1.32097	58
	Total	4.6244	1.30630	120

Table no. 7 shows descriptive statistics of participants for Cross Gender Identity Categories (CGI) There were 120 participants in total. The mean (SD) score for FC2 (Female Congruent)came to be 0.97,1.16 and 1.07 respectively. For FI2 (Female Incongruent)the mean (SD) score came out to be 1.22 ,1.19 and 1.21 respectively. For MC_PI (Male congruent) the mean SD score came out to be 1.20, 1.22 and 1.21 For MI2 (Male Incongruent)the mean (SD) score came out to be 1.40, 1.37 and 1.46 respectively. For UNI2 (Unisex) mean (SD) scores came out to be 1.26,1.32 , and 13.0. respectively.

Table 12

Two-way ANOVA was computed, 2 (Group : Low CGI, High CGI) X 5 (product type: Female Congruent- FC, Female Incongruent -FI, Male Congruent -MI , Male Incongruent -MI , Unisex - UNI) for Purchase Intention.

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Producttype_pi	Sphericity Assumed	20.111	4	5.028	5.834	0.000	0.047
	Greenhouse-Geisser	20.111	3.528	5.700	5.834	0.000	0.047
	Huynh-Feldt	20.111	3.681	5.463	5.834	0.000	0.047
	Lower-bound	20.111	1.000	20.111	5.834	0.017	0.047
Producttype_pi * CGICAT	Sphericity Assumed	12.881	4	3.220	3.737	0.005	0.031
	Greenhouse-Geisser	12.881	3.528	3.651	3.737	0.008	0.031
	Huynh-Feldt	12.881	3.681	3.499	3.737	0.007	0.031
	Lower-bound	12.881	1.000	12.881	3.737	0.056	0.031
Error(Producttype_pi)	Sphericity Assumed	406.776	472	0.862			
	Greenhouse-Geisser	406.776	416.340	0.977			
	Huynh-Feldt	406.776	434.385	0.936			
	Lower-bound	406.776	118.000	3.447			

Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
11034.006	1	11034.006	2585.907	0.000	0.956
24.035	1	24.035	5.633	0.019	0.046
503.503	118	4.267			

The main effect of group was statistically significant, $F(1, 118) = 5.63$, $p < 0.01$, partial $\eta^2 = 0.046$.

The main effect of Producttype was statistically significant, $F(4, 472) = 5.83$, $p < 0.001$, partial $\eta^2 = 0.047$.

The two way interaction effect between Producttype and group was statistically significant, $F(4, 472) = 3.73$, $p = 0.005$, partial $\eta^2 = 0.031$.

Table 13

Post hoc was conducted between groups for Purchase Intention scores.

Variables	CGICAT	N	Mean	Std. Deviation	t	df	p
FC3	Low	62	3.977	0.9740			
					-1.013	118	0.313
	High	58	4.176	1.1694			
FI3	Low	62	4.1373	1.22902			
					-0.924	118	0.358
	High	58	4.3417	1.19342			
MC3	Low	62	4.132	1.2081			
					-0.964	118	0.337
	High	58	4.347	1.2253			
MI3	Low	62	3.7856	1.40880			
					-3.782	118	0.000
	High	58	4.7478	1.37496			
UNI3	Low	62	4.4198	1.26901			
					-1.790	118	0.076
	High	58	4.8431	1.32097			

Purchase Intention was better for High CGI group (4.74) than Low CGI group (3.78) than , *t* (118) = -3.78, *p* <.001 for male incongruent products.

Purchase Intention was close to significantly different for High CGI group (4.84) than Low CGI group (4.41) than , *t* (118) = -3.78, *p* = .07 for unisex products.

Table 14

Post hoc was conducted within product types of high groups for Purchase intention scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	HFC1	3.98	62.00	0.97			
					-1.68	61.00	0.10
	HFI1	4.14	62.00	1.23			
Pair 2	HFC1	3.98	62.00	0.97			
					-1.22	61.00	0.23
	HMC1	4.13	62.00	1.21			
Pair 3	HFC1	3.98	62.00	0.97			
					1.17	61.00	0.25
	HMI1	3.79	62.00	1.41			
Pair 4	HFC1	3.98	62.00	0.97			
					-3.37	61.00	0.00
	HUNI1	4.42	62.00	1.27			
Pair 5	HFI1	4.14	62.00	1.23			
					0.04	61.00	0.96
	HMC1	4.13	62.00	1.21			
Pair 6	HFI1	4.14	62.00	1.23			
					2.31	61.00	0.02
	HMI1	3.79	62.00	1.41			
Pair 7	HFI1	4.14	62.00	1.23			
					-2.12	61.00	0.04
	HUNI1	4.42	62.00	1.27			
Pair 8	HMC1	4.13	62.00	1.21			
					2.12	61.00	0.04
	HMI1	3.79	62.00	1.41			
Pair 9	HMC1	4.13	62.00	1.21			
					-2.01	61.00	0.05
	HUNI1	4.42	62.00	1.27			
Pair 10	HMI1	3.79	62.00	1.41			
					-3.79	61.00	0.00
	HUNI1	4.42	62.00	1.27			

Purchase intention was Significant for for Pair 4 and 10.In pair 4, UNI 1 products has better purchase intention scores (4.42 than FC1 products (3.98) within high CGI group, *t* (61) = -3.37, *p*= <.001.In pair 10, UNI1 products has better purchase intention scores (4.42) than MI1 products (3.79) within high CGI group, *t* (61) = -3.79=*p* <.001.

Table 15

Post hoc was conducted within product types of low groups for Purchase intention scores.

		Mean	N	Std. Deviation	t	df	p
Pair 1	LFC1	4.18	58.00	1.17			
					-1.08	57.00	0.29
	LFI1	4.34	58.00	1.19			
Pair 2	LFC1	4.18	58.00	1.17			
					-0.95	57.00	0.34
	LMC1	4.35	58.00	1.23			
Pair 3	LFC1	4.18	58.00	1.17			
					-2.74	57.00	0.01
	LMI1	4.75	58.00	1.37			
Pair 4	LFC1	4.18	58.00	1.17			
					-3.85	57.00	0.00
	LUNI1	4.84	58.00	1.32			
Pair 5	LFI1	4.34	58.00	1.19			
					-0.02	57.00	0.98
	LMC1	4.35	58.00	1.23			
Pair 6	LFI1	4.34	58.00	1.19			
					-1.84	57.00	0.07
	LMI1	4.75	58.00	1.37			
Pair 7	LFI1	4.34	58.00	1.19			
					-2.73	57.00	0.01
	LUNI1	4.84	58.00	1.32			
Pair 8	LMC1	4.35	58.00	1.23			
					-2.04	57.00	0.05
	LMI1	4.75	58.00	1.37			
Pair 9	LMC1	4.35	58.00	1.23			
					-2.56	57.00	0.01
	LUNI1	4.84	58.00	1.32			
Pair 10	LMI1	4.75	58.00	1.37			
					-0.41	57.00	0.69
	LUNI1	4.84	58.00	1.32			

Purchase intention was Significant for for Pair 3,4,7,8 and 9.In pair 3, MC1 products has better purchase intention scores (4.35 than FC1 products (4.18) within low CGI group, *t* (57) = -2.74,

p= =.001.In pair 4 MI1 products has better memory recognition scores (4.75) than FCI products (4.18) within low CGI group, *t* (57) = -3.85, =*p* <.001.In pair 7 MI1 products has better memory recognition scores (4.75) than F1I products (4.34) within low CGI group, *t* (57) = -2.73, =*p* =.001and In pair 9 MI1 products has better memory recognition scores (4.84) than MCI products (4.75) within low CGI group, *t* (57) = -2.56, =*p* <.001.

CHAPTER 7

DISCUSSION

Each person interprets the world using a set of categorical rules, or scripts. New data is evaluated based on how closely it adheres to the rules or schema. These ideas are helpful for predicting and analyzing events that happen in our environment. Information that does not fit within these schemas may be misinterpreted or not understood at all. This explains why readers find it challenging to understand a book about a topic they are unfamiliar with, even if they comprehend the meaning of every word in the paragraph. Based on the article of Wolin (2003), the individuals that obtain masculine and feminine gender identities prefer following cultural definitions of gender appropriateness, whereas those who have androgynous or undifferentiated gender-identity have a tendency to act beyond these culturally defined gender roles/definitions. This theory supports our findings because while exposing the target respondents to the gender-neutral advertisement, the most gender congruent groups were the undifferentiated and androgynous. Gender-neutral skincare can be seen as a product that does not follow the typical gender roles**.**

In this study, we investigated Effect of cross gender identity on recognition memory and purchase intention of gender congruent versus gender neutral products . The results of the two-way ANOVA for immediate memory and memory recognition present an interesting pattern that can be discussed in terms of the effects of different variables.First, let's address the main effects and interactions found in the study. The main effect of the group was not significant for immediate memory, indicating that overall, there wasn't a significant difference in immediate memory scores between the groups. However, the main effect of Product type was significant, suggesting that the type of

product being tested did have a notable impact on immediate memory performance. Additionally, the interaction between group and Product type was significant, indicating that the relationship between group and Product type influenced immediate memory scores.Further analysis through post hoc tests revealed specific insights. Within low CGI groups, immediate memory was significantly better for certain product pairs, such as FC1 products compared to MCI products. Similarly, within high CGI groups, immediate memory varied significantly between product pairs, with certain products consistently outperforming others.Turning to memory recognition, similar trends emerged. While the main effect of CGICAT was significant, indicating a difference in memory recognition between high and low CGI groups, the main effect of Producttype_pi was also statistically significant, pointing to the influence of product type on memory recognition scores. The interaction effect between Producttype_pi and CGICAT further emphasized the nuanced relationship between these variables.Post hoc analyses provided additional insights into memory recognition scores, revealing significant differences between product pairs within both low and high CGI groups.Finally, when considering purchase intention scores, a significant difference was found between high and low CGI groups, as well as within product types within high CGI groups. These findings suggest that both group difference and product type play crucial roles in influencing purchase intention. cross-gender identity has a strong influence in choosing product type . The findings reveal a compelling trend: individuals with high cross-gender identity demonstrate a marked inclination towards unisex products, indicating a departure from conventional gender norms in their purchasing . Moreover, the revelation that individuals with high cross-gender identity are less swayed by traditional gender stereotypes while purchasing the products .Fischer and Arnold (1990), who looked into the connection between consumers' gender identity and their holiday gift-giving. Palan, Areni, and Kiecker (2001) looked at the connection

in a separate investigation.between a customer's gender identity and their gift-giving. Results from the study indicated that when it came to purchasing gifts, men and women were more object-focused and individual-focused, respectively. Male customers remembered their experiences providing gifts more vividly than female consumers, according to another study finding. Gender role identity and its impact on consumers' gift-buying behavior were examined by Kılıçer, Boyraz, and Tüzemen (2016). The study's findings showed that undifferentiated consumers purchased more presents while androgynous consumers bought fewer.

CHAPTER-8

CONCLUSION, IMPLICATION, LIMITATIONS, AND SCOPE FOR FUTURE RESEARCH

7.1 Conclusion

The findings of this study underscore the significant influence of cross-gender identity on both recognition memory and purchase intention concerning gender congruent versus gender neutral products. With a sample of 120 participants encompassing diverse backgrounds, including 60 individuals from liberal arts and engineering disciplines within the 18–30 age range, this research utilized E-Prime software for precise stimulus control and presentation. By employing the Gender Identity Questionnaire by Blanchard and Blanchard Cross, comprehensive insights were gained.Through rigorous statistical analyses including descriptive statistics, T tests, and ANOVA, it is evident that the interaction between product type and cross-gender identity is substantial. These results highlight the nuanced ways in which individuals perceive and engage with products based on their gender congruency, particularly in the context of cross-gender identity. This contributes to our understanding of consumer behavior and has implications for marketing strategies aimed at diverse audiences.

7.2 Implication

Incorporating gender-neutral features into product design and promotion could potentially lessen consumers' cognitive load and facilitate easier and faster decision-making. This suggests that companies looking to improve customer satisfaction and expedite the decision-making process could think about implementing gender-neutral features in their products.The idea that a wider target population and enhanced appeal might result from eschewing gender stereotypes in product marketing further emphasizes the significance of inclusive marketing techniques. Brands

can connect with a wider range of consumers—including those who might feel excluded or underutilized by traditional marketing strategies—by rejecting traditional gender norms and stereotypes in product promotion and advertising. It can be inferred that businesses aiming to enhance their market penetration and attractiveness ought to give precedence to inclusivity and diversity in their promotional campaigns.These ramifications, taken together, show the possible advantages of adopting gender neutrality in marketing and product design. Brands may improve consumer happiness, expand their audience, and cultivate a more inclusive brand image in today's varied marketplace by accommodating a wide range of consumer preferences and eschewing gender preconceptions.

7.3 Limitation

The study may not have accounted for various contextual factors that could influence participants' perceptions and behaviors, such as cultural differences, socio-economic status, or individual experiences related to gender identity.

7.4 Scope for future research

Exploring cross-cultural differences in attitudes towards gender-neutral products can elucidate how cultural factors shape consumer preferences and purchasing decisions. By comparing responses across diverse cultural contexts, researchers can identify universal trends as well as cultural-specific variations in consumer behavior.

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APPENDIX A

CONSENT FORM

In the present experiment there are Two phases .In phase 1 you will be shown advertisements followed by a question about the advertisement . The only thing you are required to do is pay attention to the screen. In phase 2 you will be asked to identify if you have seen the advertisement before and to rate the product . The complete experiment will require approximately 20 minutes. After the experiment you will be asked to fill a questionnaire .All information you provide will remain confidential and not be associated with your name. If, for any reason, during the experiment, you do not feel comfortable, you may leave and your information will be discarded

The results of this experiment may be presented at professional meetings or published in the scientific literature. Your name will not be used in the reporting of the results. Only group data will be used; however, your scores and name will be coded for a possible follow-up study or reanalysis of the data. All personal details will be kept confidential.

If you wish to withdraw from the experiment, you may do so at any time without penalty.

Following the experiment, I will discuss the results of the experiment with you if needed.

If you have any questions, please feel free to ask me or the advisor of the research, *Dr. Richa Nigam, TSLAS, Thapar Institute of Engineering and Technology, Patiala.*

Thank you for participating in the experiment.

I, _____ _____,
understand

(First Name) *(Last Name)*

that my participation in this experiment is voluntary and that I may refuse to participate or withdraw from the experiment at any point of time without penalty.

_____

Date

_____

Signature of Participant

_____

Signature of Experimenter

APPENDIX B

Blanchard and Blanchard Cross gender identity scale for Females

In the following you will find a number of questions concerning your childhood and youthhood preferences ,desires and feelings .

Read carefully the given answers and choose your answer .

Put a Tick mark(□) against the answer you choose .

NAME : SEX:

NO. OF YEARS OF EDUCATION :

DATE OF BIRTH : DATE:

---

1 Between the ages of 6 and 12 ,did you prefer

a) to play with boys

b) to play with girls

c) didn't make any difference

d) not to play with other children

e) don't remember

2 Between the ages of 6 and 12 ,did you

a) prefer boy's games and toys (football,soldier etc)

b) to play with girl's games and toys (dolls ,sewing etc)

c) like / dislike both equally

d)had no opportunity to play games or with toys

3 In childhood, were you very interested in the work of a garage mechanic ?was this

a)prior to age 6 c)probably in both periods

b)between ages 6 and 12 d)do not remember that i was very interested i

In the work of garage mechanic

4 Between ages 6 and 14 ,which did you like more ,romantic stories or adventure stories

a) Liked romantic stories more c) it did not make any difference

b) Liked adventure stories more

5 Between the ages 6 and 12 ,did you like to do jobs or chores which are usually done by men ?

a)yes b)no c)don't remember

6 Between the ages of 13 and 16 ,did you like to do jobs or chores which are usually done by men ?

a)yes b)no c)don't remember

7 Between the ages 6 and 12 when you read a story did you imagine that you were

a)the male in the story (cowboy ,detective ,soldier etc)

b) the female in the story (the girl being saved ,etc)

C)the male sometimes and the female other times

d)neither the male nor the female

e) did not read stories

8 In childhood or at puberty ,did you like mechanics magazines? Was this

a)between the ages 6 and 12

b)between the ages 12 and 14

c)probably in both periods

d) do not remember that i like mechanic Magazines

9 Between the ages 6 and 12 ,did you sometimes imagine yourself as being the courageous leader of others ?

a)yes b)no c) unsure

10 Between the ages 6 and 12 ,did you wish you had been born a boy instead of a girl ?

a)often b)occasionally c)never

11 Between the ages 13 and 16 , did you wish you had been born a boy instead of a girl ?

a)often b)occasionally c)never

12 Since the age of 17 ,have you wished you had been born a boy instead of a girl

a)often b)occasionally c)never

13 Do you think your appearance is

a) Very feminine b)feminine c)a little masculine d)quite masculine

14 Between the ages 6 and 12,did you sometimes imagine ,in your fantasies ,yourself physically defending someone against a monster , dangerous animal or evil people ?

a) Prior to age 6 c)probably in both periods

b) Between ages 6 and 12 d)do not remember such Fantasies

15 In childhood fantasies did you sometimes wish you could go hunting big game ?was this

a)prior to age 6 c)probably in both periods

b) between age 6 and 12 d)do not remember such fantasies

16 In childhood ,did you wish you could become very strong physically ?was this

a)prior to age 6 c)probably in both periods

b) between age 6 and 12 d)do not remember the desire to become Very strongly physically

17 In childhood was there ever a period in which you wished you would ,when adult ,become a dressmaker or dress designer ? was this

a) Prior to age 6 c)probably in both periods

b) Between ages 6 and 12 d) do not remember having this desire

18 In childhood fantasies did you sometimes imagine yourself driving a racing car ? was this

a)prior to age 6 c)probably in both periods

b)between ages 6 and 12 d) do not remember having this Fantasy

19 In childhood ,did you ever wish to become a dancer ?was his

a)prior to age 6 c)probably in both periods

b)between ages 6 and 12 d)do not remember having this desire

20 In childhood did you ever wish to become a pilot ,or did you fantasise yourself being a pilot ?was this

a)prior to age 6 c)probably in both periods

b)between ages 6 and 12 d)do not remember having this desire

APPENDIX C

Blanchard and Blanchard Cross gender identity scale for Males

In the following you will find a number of questions concerning your childhood and youthhood preferences ,desires and feelings .

Read carefully the given answers and choose your answer .

Put a Tick mark(□) against the answer you choose .

NAME : SEX:

NO. OF YEARS OF EDUCATION :

DATE OF BIRTH : DATE:

---

1 Between the ages of 6 and 12 ,did you prefer

a) to play with boys
b) To play with girls
c) Didn't make any difference
d) not to play with other children
e) don't remember

2 Between the ages of 6 and 12 ,did you

a) prefer boy's games and toys (football,soldier etc)
b) to play with girl's games and toys (dolls ,sewing etc)
c) like / dislike both equally
d)had no opportunity to play games or with toys

3 In childhood, were you very interested in the work of a garage mechanic ?was this

a)prior to age 6 c)probably in both periods

b)between ages 6 and 12 d)do not remember that i was very interested i

In the work of garage mechanic

4 Between ages 6 and 14 ,which did you like more ,romantic stories or adventure stories

a) Liked romantic stories more c) it did not make any difference

b) Liked adventure stories more

5 Between the ages 6 and 12 ,did you like to do jobs or chores which are usually done by women ?

a)yes b)no c)don't remember

6 Between the ages of 13 and 16 ,did you like to do jobs or chores which are usually done by women ?

a)yes b)no c)don't remember

7 Between the ages 6 and 12 were you a leader in boys games or others activities

a) more often than other boys

b) less often than other boys

C) about the same ,or dont know

d) did not partake in children's games and /or other activities

8 Between the ages of 6 and 12 ,when you read a story did you imagine that you were

a) The male in the story (cowboy,detective ,soldier)

b) The female in the story (the girl being saved ,etc)

c) The male sometimes and the female sometimes

d) Neither the male or the female

e) Did not read stories

9 In childhood or at puberty ,did you like mechanic magazines ?was this

a)Between the ages 6 and 12 b)Between ages 12 and 4

c)probably in both periods d) do not remember that i liked mechanic Magazine

10 Between the ages 6 and 12 ,did you wish you had been born a girl instead of a boy ?

a)often b)occasionally c)never

11 Between the ages 13 and 16 , did you wish you had been born a girl instead of a boy?

a)often b)occasionally c)never

12 since the age of 17 ,have you wished you had been born a girl instead of a boy

a)often b)occasionally c)never

13 Do you think your appearance is

a) Very masculine b) masculine c)a little feminine d) quite feminine

14 In childhood ,did you sometimes imagine yourself a well known sports figure ,or did you wish you would become one ?was this

a)Prior to age 6 c)probably in both periods

b)between ages 6 and 12 d)do not remember such fantasies

15 In childhood fantasies did you sometimes wish you could go hunting big game ?was this

a)prior to age 6

b) between age 6 and 12

c)probably in both periods

d)do not remember such fantasies

16 In childhood fantasies did you sometimes imagine yourself as being a policeman or a soldier ?was this

a) prior to age 6

b) between age 6 and 12

c)probably in both periods

d)do not remember that i had such fantasy

17 In childhood was there ever a period in which you wished you would ,when adult ,become a dressmaker or dress designer ? was this

a) Prior to age 6

b) Between ages 6 and 12

c)probably in both periods

d) do not remember having this desire

18 In childhood fantasies did you sometimes imagine yourself driving a racing car ? was this

a)prior to age 6

b)between ages 6 and 12

c)probably in both periods

d) do not remember having this Fantasy

19 In childhood ,did you ever wish to become a dancer ?was his

a)prior to age 6

b)between ages 6 and 12

c)probably in both periods

d)do not remember having this desire