

Exploring Implicit and Explicit Judgements in Gender Expression and Sexual Orientation

by

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## Abstract

The current study aimed to investigate stereotypes pertaining to individuals' views of sexual orientation and gender expression. This study investigated these stereotypes through the binary viewpoint of an Implicit Association task in conjunction with open-ended questions, which allow space for more fluid responses in accordance with Queer Theory. One-hundred and forty individuals participated in a modified IAT study with pictures of couples varying in sexuality (i.e. gay or straight) and gender expression (i.e. feminine or masculine). They also judged sexual orientation, gender identity and gender expression in open-ended questions. Gender expression was found to play a critical role in individuals' perceptions of sexual orientation and their categorization tendencies, regardless of whether the individual was depicted in a homosexual or heterosexual couple. For example, it was found that those with gender non-conforming appearances (i.e. men wearing feminine clothing) tended to be categorized as homosexual. They were also processed slower in the IAT. In addition, within homosexual couples, variations based on gender expressions were also observed (e.g. two feminine women being processed faster, while two masculine men, slower). Overall, results show a clear confusion in understanding gender expression, with a large variation of words used to describe gender based on expression, particularly for individuals with a non-stereotypical presentation. The results suggest that gender expression, which has rarely been included in studies, should be taken into account in research.

*Keywords:* Gender Expression, Sexual Orientation, Implicit Judgements, Explicit Judgements, IAT, Gender, Queer Theory

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## Table of Contents

|  |           |
|--|-----------|
| Thesis Defence Committee.....  | ii        |
| Abstract .....   | iii       |
| Acknowledgements .....   | iv        |
| Table of Contents .....  | v         |
| List of Tables .....   | vii       |
| List of Figures.....   | viii      |
| <b>Exploring Implicit and Explicit Judgements in Gender Expression and Sexual Orientation</b>    | <b>1</b>  |
| <i>Sexual Orientation and Gender Expression</i> .....  | 2         |
| <i>Homosexuality Prejudice</i> .....   | 4         |
| <i>The Role of Physical Appearance</i> .....   | 6         |
| <i>Implicit Attitudes</i> .....  | 7         |
| <i>The Implicit Association Test</i> .....   | 9         |
| Measurements Resulting from an IAT.....  | 9         |
| Use of IAT in Sexuality and Gender Expression Studies .....                                      | 10        |
| <i>Queer Theory</i> .....  | 11        |
| Qualitative Research Pertaining to Queer Theory .....  | 12        |
| <i>The Gap in the Research – Gender Fluidity Theories Represented in Categorization Tasks</i> .. | 13        |
| <b>The Present Study</b> .....   | <b>14</b> |
| <i>Hypotheses</i> .....  | 14        |
| <b>Methods</b> .....   | <b>15</b> |
| <i>Participants</i> .....  | 15        |
| <i>Materials</i> .....   | 15        |
| <i>Procedure</i> .....   | 17        |
| <b>Results</b> .....   | <b>18</b> |
| <i>Response Times on IAT</i> .....   | 18        |
| Data Cleaning.....   | 18        |
| Reaction Times Based on Good VS Bad Words .....  | 18        |
| Mean Differences – Compatible VS Incompatible Conditions .....                                   | 19        |
| Reaction Times Based on Couple Archetype .....   | 20        |
| <i>Open-Ended Questionnaire Results</i> .....  | 24        |
| Data Analysis .....  | 24        |
| Non-Stereotypical Gender Expression Confuses Gender Identity.....                                | 25        |
| The Unclear Nature of Defining Non-stereotypical Gender Expression .....                         | 27        |
| Individuals with Non-Stereotypical Gender Expression are Gay .....                               | 29        |
| <b>Discussion</b> .....  | <b>31</b> |

|   |           |
|---|-----------|
| <i>Gender Expression: The Driving Force of Judgements</i> .....                       | 32        |
| <i>What is Gender Expression?</i> .....   | 33        |
| <i>The Role of Gender Expression in The Current Study</i> .....                       | 33        |
| <i>Stereotypical VS. Non-Stereotypical Gender Expression</i> .....                    | 34        |
| <i>Gender Expression and Gender Identity in Open-Ended Questionnaire</i> .....        | 36        |
| <i>Perception of Sexual Orientation</i> .....   | 38        |
| The Role of Gender Expression on Perceptions of Sexual Orientation .....              | 38        |
| Negative Homosexuality Bias.....  | 39        |
| <i>Queer Theory vs. Binary Categorization</i> .....                                   | 41        |
| The Use of Binaries in the Current Study .....  | 42        |
| <i>Effect of Gender Expression for Both Homosexual and Heterosexual Couples</i> ..... | 43        |
| <i>Clinical Implications</i> .....  | 44        |
| <i>Limitations</i> .....  | 45        |
| <b>Conclusion</b> .....   | <b>46</b> |
| <b>References</b> .....   | <b>48</b> |
| <b>Appendix A – All Stimuli</b> .....   | <b>62</b> |
| <b>Appendix B – Implicit Association Test Instructions</b> .....                      | <b>66</b> |
| <b>Appendix C – Open Ended Questionnaire Sample</b> .....                             | <b>67</b> |
| <b>Appendix D – Informed Consent Script</b> .....                                     | <b>68</b> |
| <b>Appendix E – Debriefing Script</b> .....   | <b>69</b> |

## List of Tables

|  |    |
|--|----|
| <b>Table 1</b> <i>Reaction Times based on Word Condition</i> .....   | 18 |
| <b>Table 2</b> Means and Standard Errors of Reaction Time Differences for Compatible and Incompatible Conditions in Couples..... | 20 |
| <b>Table 3</b> <i>Reaction Times Based on Couple Archetypes</i> .....  | 21 |
| <b>Table 4</b> <i>Overall Means and Standard Errors of Couples</i> .....   | 21 |
| <b>Table 5</b> <i>Open Ended Questionnaire Responses for Gender Expression</i> .....   | 26 |
| <b>Table 6</b> <i>Open Ended Questionnaire Responses for Gender Expression</i> .....   | 28 |
| <b>Table 7</b> <i>Open Ended Questionnaire Responses for Sexuality</i> .....   | 29 |

## List of Figures

|   |    |
|---|----|
| <b>Figure 1</b> <i>Image of a feminine male x masculine female couple and masculine male x feminine female couple</i> .....   | 26 |
| <b>Figure 2</b> <i>Image of a feminine male x masculine female couple and masculine male x masculine female couple</i> .....  | 28 |
| <b>Figure 3</b> <i>Image of a masculine male x feminine female couple, masculine male x masculine female couple, and masculine male x masculine male couple</i> ..... | 30 |



## **Exploring Implicit and Explicit Judgements in Gender Expression and Sexual Orientation**

Making initial judgements of others and forming mental stereotypes is a common practice that everyone has participated in or experienced at some point in their lives (Ellemers, 2018). These social categorizations formed when making judgements are the building blocks of many common stereotypes (Knippenberg & Dijksterhuis, 2000). Stereotypes ultimately evolve to categorize people, and this act of categorization is fundamental to understanding the process of stereotyping (Campbell, 1967). Having access to the knowledge of categories allows someone to participate in the judgement, identification, and inference of members of these categories (Bruner, 1956). Bruner (1956) suggests that the primary function of categorization is to reduce a complex concept or social idea that one may not comprehend fully. Categorizing allows the individual to view the concept in a simpler and more manageable way (Bruner, 1956). All in all, this act of categorization leads to the formation of stereotypes. These stereotypes then serve the need to reduce the complexity of one's environment, gain cognitive clarity, and form coherent impressions (Kunda & Spencer, 2003). However, it is important to note that while categorization serves a purpose cognitively, it can also lead to prejudice (Anderson, 2020; Blashill & Powlishta, 2009; Kite & Deaux, 1987; Sherif, 1982).

It is common knowledge that stereotypes are quite pervasive globally and can extend to different aspects of a person. Stereotypes result from preconceived notions that are formed about groups of individuals (Campbell, 1967). These can be used to rationalize negative group-based attitudes and reinforce discrimination, thus affecting how one perceives and treats the people around them (Biernat & Dovidio, 2000). Stereotypes can be based on a myriad of different aspects of an individual. However, the focus of this research is on stereotypes based on gender expression and sexual orientation. In this study, with a modified Implicit Association Test (IAT),

individuals' quick reactional judgments based on implicit attitudes toward homosexual and heterosexual individuals with varying gender expressions were investigated. We also explored the explicit judgement of these individuals with qualitative open-ended questions.

Queer Theory, which will be explored in depth further in this paper, dives into the relationship between sexual orientation, gender expression, and the individual (Halperin, 2014). Queer Theory emphasizes the history of queer identities and respects the process of continual change and fluidity in the terms associated with a queer identity (Dilley, 1999). It challenges basic tropes used to organize society (Dilley, 1999). This study will explore judgements and the use of words typically used to categorize sexual orientation, such as “homosexual”. However, these terms are ever-growing and incredibly personal to each individual, which is essential to remember moving forward.

### **Sexual Orientation and Gender Expression**

A person's self-identified sexual orientation can comprise of their sexual behaviour, sexual identity, sexual attraction, and one's physiological sexual arousal (Bailey et al., 2016). Nevertheless, discrepancies can exist between self-identified sexual orientation and the perception of one's sexual orientation. Expectations tend to be formed by others, whether someone's self-identified sexual orientation is known or not, especially expectations about their gender expression (Blashill & Powlishta, 2009). Gender expression is the manifestation of an individual's sense of being masculine and/or feminine (Kessler & McKenna, 1985). This can be portrayed through names, clothing, hairstyle, body movements, etc., all typically associated with a specific gender group. It is important to note, however, that gender expression is not necessarily one's identity, but it is instead how someone embodies and communicates their own individual gendered understanding of self (Anderson, 2020; Diamond, 2020). Gender identity, on

the other hand, is completely unseen by others and refers to inner feelings on whether one identifies as male, female, both, or neither (Sherif, 1982).

Furthermore, a widespread stereotype exists suggesting that homosexual individuals will possess characteristics that will violate traditional gender roles, including those associated with physical appearance (Blashill & Powlishta, 2009; Kite & Deaux, 1987; Martin-Storey, 2016). Consequently, stereotypes will lead us to exaggerate the similarities between members of these groups and their differences from other groups (Blashill & Powlishta, 2009). Hence, the belief is that since gay men have the same sexual attractions as heterosexual women, they must be alike in other ways. The same belief exists for lesbian women and heterosexual men (Blashill & Powlishta, 2009). People use violations of expected gender roles to infer violations of expected sexual orientation and vice versa (Lehavot & Lamber, 2007). To expand, these gender inversion stereotypes suggest that people expect gay men to portray more feminine aesthetics and that lesbian women will portray more masculine aesthetics (Anderson, 2020). This method of stereotyping can go either way. Individuals will tend to make inferences about gender expression based on self-identified sexual orientation, and on the other hand, will make inferences about sexual orientation based upon gender expression.

Onlookers can make these assumptions even when sexual orientation is not known to observers (Ambady & Hallahan, 1999). Relying on merely a perception of sexual orientation can have equally negative social implications and lead to false evaluations (Ambady & Hallahan, 1999). It is quite common for observers to take social cues such as facial structure, gestures, clothes, or even actions to form a perception of someone's sexual orientation to validate initial judgements (Ellemers, 2018; Freeman et al., 2010; Kite & Whitley, 1998; Levahot & Lambert, 2007; Lick & Johnson, 2014).

All in all, gender expression and sexual orientation seem to heavily influence each other and tie together strongly in individual appraisals (Ellemers, 2018; Lehavot & Lamber, 2007; Powlishta, 2012). When people are classified into different social categories, inevitably, a set of social norms is formed to evaluate the individuals in the categories (Sherif, 1982). Rarely are these norms going to specify the exact behaviours that all members of the group exhibit. However, these behaviours still help form additional stereotypes and influence attitudes and perceptions (Sherif, 1982). Indeed, Blashill and Powlishta (2012) found that individuals with gender-atypical appearance and activity attributes were viewed more negatively than their gender-typical counterparts.

### **Homosexuality Prejudice**

Homosexuality has a long-withstanding history of not being entirely socially accepted. Some people even hold the notion that homosexuality is inherently deviant and sinful (Asyraf-Zulkiffi & Rashid, 2019; Bailey et al., 2016; Keibel et al., 2020; Kite & Deux, 1987; Vehco, 2019). The topic of sexual orientation ties in heavily with individual views on traditional gender roles. Gender belief systems are stereotypes that are held regarding men and women and their expectations (Blashill & Powlishta, 2012). It has been noted that heterosexuals' negative attitudes toward lesbians and gay men consistently correlate with traditional views of gender and family roles (Du et al., 2020; Ellemers, 2018; Herek, 1986). To elaborate, heterosexual masculinity expectations embody some personal characteristics such as success, status, toughness, independence, aggressiveness, and dominance (D'Acunto et al., 2020; Good, 2018; Herek, 1986). These have been ingrained into young males' perceived ideal personal identity growing up. These ideas can stem from early experiences of gender as a more self-defining characteristic (Du et al., 2020; Ellemers 2018; Herek, 1986). It also ties in heavily to what is not

“masculine”. This would include traits often associated with women, such as being compliant, dependent, or effeminate (D’Acunto et al., 2020; Herek, 1986). Homophobic attitudes can be encouraged by young boys often learning how to become a “man” by rejecting traits that are more typically found to be more feminine, traits which some gay men stereotypically embrace (Herek, 1984; Luoto, 2021).

It has been noted that negative feelings toward a feminine gay man could stem from sexual orientation, a violation of expectations about sexuality, or the nonconformity of gender roles (Lehavot & Lamber, 2007). Lehavot and Lamber (2007) found that highly prejudiced participants in a study showed a clear influence of traditional expectations about sexual orientation, rating gay men as less masculine than straight men regardless of whether the target’s behaviours were actually masculine or feminine, and lesbians as more masculine than straight women regardless of target behaviours. The researchers also found that high-prejudice participants exhibited a tendency to dislike targets who violated gender roles, and this was true regardless of the target’s sexual orientation. Keeping in mind that these assumptions are typically made based on appearance, and it has been found that individuals subconsciously cluster strangers by their perceived sexual orientation (Ellemers, 2018). These implicit evaluations are often rooted in mental associations of groups, be they positive or negative (Phillis et al., 2020). Individuals will tend to make quick, in-the-moment judgements, sometimes without conscious awareness (Phillis et al., 2020). This spontaneity can help to indicate one’s level of implicit prejudice towards homosexual individuals. There even tends to be a discrepancy between implicit and explicit attitudes (Hahn et al., 2013).

## **The Role of Physical Appearance**

Physical appearance is the first piece of information that is available when being exposed to new people (Nuamann et al., 2009). Therefore, it ultimately plays a critical role in our judgements about others. Assumptions can be formed without even meeting an individual, simply with the physical information displayed in a photograph (Nuamann et al., 2009). Similar to the positive cognitive functions of stereotyping, being able to classify the physical appearance of unknown people based on facial appearance allows us to navigate the world more easily and digest information in a comfortable way (Valentova et al., 2014). Social evaluations based on gendered features can even begin within milliseconds of visual exposure (Ito et al., 2004). Indeed, Lick and Johnson (2014) found that observers will readily categorize strangers' sexual orientation based on their gendered features. Perceivers tend to categorize targets with gender-typical appearances as straight but targets with gender-atypical appearances as lesbian/gay (Lick & Johnson, 2014). Similarly, it was found that antigay prejudice arises against women based on their facial features or their gender-atypical facial cues, creating a gender-related bias in social perception (Little & Perrett, 2011; Perrett et al., 1998; Rudman & Glick, 2001). These attitudes can be formed rapidly from an initial impression based upon the available visual information (Gawronski & Bodenhausen, 2006). It has been noted that a person's attitude towards other people or a group can be a main predictor in the person's behaviour (Steffens, 2005). In the current study, an Implicit Association Test (IAT) will be used to measure implicit attitudes, wherein participants must quickly make judgments to evaluate stimuli when given visual information.

## **Implicit Attitudes**

An implicit attitude refers to evaluations that occur without conscious awareness (Hahn et al., 2014). They capture certain aspects of thought and behaviour that cannot simply be revealed by self-reported explicit attitudes (Hahn et al., 2014). To compare, explicit attitudes are a result of a deliberative inferential process where an individual will take time to think of a response (Hahn et al. 2014). Rather, implicit attitudes reflect spontaneous reactions to new cues, regardless of whether or not the perceiver would believe these reactions to be valid (Gawronski & Bodenhausen, 2006). Phillis et al. (2020) state that they are rooted in mental associations of social groups. This consists of a combination of semantic attributes associated with a group, and the general positive or negative valence related. Consequently, it was concluded that implicit prejudice and implicit stereotyping, while conceptually different, are causally related and influence each other (Phillis et al., 2020).

Over the past few centuries, views on homosexuality and gender expression have developed and shifted to evolve with changing times. Mainstream media plays an important role as a provider of information and a general social model (Gonta, 2017). The largest increase in the representation of gay people in the media occurred in the 1990's (Ayoub & Garretson, 2017). Since then, the portrayal of gay people in television, movies, and news coverage has been on the incline (Ayoub & Garretson, 2017). In Canadian history, the Federal Civil Marriage Act came into force on July 20<sup>th</sup>, 2005, making same-sex marriage legal across Canada (Canadian Encyclopedia, 2021). Canada was the fourth country to make same-sex marriage legal, and there are currently 29 countries in which it is legal (Canadian Encyclopedia, 2021). Given this trend of increased representation and acceptance, explicit views and attitudes have also begun to shift. In North America, especially among the younger and college-educated populations, we see

increased acceptance and improved views on homosexuality (Reimer, 2021). And this trend is not only being seen in North America but in European and Asian countries alike. Indeed, numerous studies have found that overall social tolerance has increased in several countries over the past few years, including Taiwan, UK, Belgium and Norway (Cheng et al., 2016; Halman et al., 2015; Sani et al., 2020). Again, these positive changes are seen mainly in those younger, more educated populations.

Yet it seems we are not yet free from more negative implicit judgments on these same topics, as it has been found that implicit attitudes do not always align with explicit attitudes (Axt et al., 2021; Banse, 2001; Steffens, 2005; Thompson et al., 2014). There still exists a negative implicit bias concerning homosexuality and non-traditional gender expression alike, despite the positive changes in explicit attitudes (Banse, 2001; Steffens, 2005). In fact, high associations have been noted between implicit measures and actual behaviour (Kurdi et al., 2019). Indicating that implicit attitudes can serve as a good predictor for one's stereotyped or prejudiced actions, as it captures indirect mental content that may otherwise not be measured (Kurdi et al., 2019). Steffens (2005) found that when concerning gay men and lesbian women, explicit attitudes were very positive. However, it was found that implicit attitudes were generally negative (Steffens, 2005). When considering gender expression, Stern and Rule (2018) found that physically androgynous individuals were evaluated more negatively due to the increased effort that was required to determine the individual's gender. Similarly, an implicit association test completed by Atwood and Axt (2021) found that there were more positive attitudes towards gender-conforming individuals than there was towards androgynous individuals.



## **The Implicit Association Test**

A person's attitude towards other persons or groups can serve as one of the main predictors of behaviour (Steffens, 2005). An Implicit Association Test (IAT) measures implicit attitudes and other automatic associations (Greenwald et al., 1998). During this computerized task, participants categorize words and images into one of two categories (e.g., good/bad; homosexual/ heterosexual) by clicking a designated key representing each category as quickly as possible. It indirectly measures the strength of the association between two concepts (Kurdi et al., 2018). This task relies less on controllable behaviours and is centred around the assumption that speed and accuracy of responses can serve as useful indicators of underlying mental processes (Kurdi et al., 2018). An IAT consists of a double discrimination task that allows the researcher to investigate two stimulus dimensions (Banse, 2001).

### ***Measurements Resulting from an IAT***

The IAT is one of many long-withstanding measurements of implicit attitudes, and it has faced a great deal of criticism in its history, typically pertaining to what it truly measures and its predictive validity (Jost, 2019; Oude-Maatman, 2017). Researchers have questioned whether the test is a valid measure of implicit attitudes and whether it is a true reflection of thoughts and behaviour that can reflect individual differences (Blanton et al., 2009; Falk et al., 2015). For instance, Schimmack (2021) proposed that the IAT is not a valid measure of differences in personality, and this could possibly be because there are no stable attributes that influence performance on an IAT, or if they do exist, the IAT is simply a poor measure. However, recent studies have emerged supporting the use of an IAT as a measure of automatic judgement (Vianello & Yoav Bar-Anan, 2021; Kurdi et al., 2021). Indeed, it is stated that the IAT, when used as a measure of inter-individual differences, has an incremental validity that is superior to self-reported

judgment, indicating that inferences made from IAT scores are indeed valid (Vianllo & Yoav Bar-Annan, 2021).

The rationale behind an IAT is that people can react quickly if two closely associated categories require one reaction, while another two closely associated categories require a separate reaction (Steffens, 2005). This exemplifies a congruent/compatible task (Steffens, 2005). In contrast, if closely associated categories require different reactions, reactions are slower, thus being an incongruent/incompatible task. Consequently, the perceived strength of association between the categories is inferred from the differences in reaction times between both tasks (Kurdi et al., 2018). For instance, considering attitudes to be regarded as associations in memory, if one of the presented categories on an IAT is an evaluative category (positive words or negative words) then the IAT reaction times can be regarded as an indicator of the person's attitude towards the target categories (ex. gay couple vs. heterosexual couple) (Steffens, 2005).

### *Use of IAT in Sexuality and Gender Expression Studies*

Social norms can strongly influence behaviour, especially when it comes to how individuals react to the sexual orientation of others or how people display gender expression. In these instances, implicit attitudes may be a stronger indicator of true feelings and behaviours when compared to explicit attitudes. People will often modify their views and actions to align with the perceived norms of their given environment (Ofosu et al., 2019). Evidence shows that an IAT is a reliable and valid measure of implicit attitudes toward homosexuality (Banse, 2001). A study by Banse (2001) demonstrated that self-presentation concerns did not distort the data collected concerning attitudes toward homosexuality and did indeed reflect true implicit attitudes. The

researchers found substantial correlations between implicit and explicit measures of attitude (Base, 2001).

Studies that take gender expression and non-stereotypical gender expression into account when measuring implicit attitudes are incredibly limited in research. However, it is noted that Atwood & Axt (2021) studied attitudes towards androgyny that used individuals' stereotypical gender expressions vs androgynous individuals (those whose appearance is a combination of masculine and feminine traits) using an IAT. It was found that more positive associations were present for gender-conforming than gender-non-conforming individuals (Atwood & Axt, 2021).

### **Queer Theory**

While the IAT does dichotomize both gender, sex, and sexuality, Queer Theory tells us we must also consider a more fluid perspective on these topics (Watson, 2005). Queer Theory serves many purposes, one of which is to study and improve these categorization processes (Watson, 2005). Queer Theory challenges those conventional understandings of sexual identity through the deconstruction of the very categories that have been socially established, for instance, the very categories that are used within the IAT, such as homosexual and heterosexual (Jagose, 1996). The term “queer” represents a dynamic process, both at the level of theory and action (Watson, 2005). Queer has surpassed its use as an inclusive categorization, as a noun, the word can be used to refer to individuals in a marginalized group, those who go beyond societies “normalized” categorizations (Dilley, 1999). It is important to note that the term “queer” encompasses a range of differences along the spectrum of sexual diversity, and Queer Theory encourages individuals to look past typical binaries (Jagose, 1996).

### *Qualitative Research Pertaining to Queer Theory*

Tasks and questions that researchers typically employ to attempt to quantify sexual orientation and gender identity tend to dichotomize responses, not allowing for a more fluid understanding of these concepts (Suen et al., 2020). When considering topics such as gender, gender expression, and sexual orientation as binaries, this can ultimately reduce inclusion, not allowing for a more encompassing and complex picture (Bauer et al., 2017; Cahill et al., 2014; Lombardi & Banik, 2016; Ridolfo et al., 2012; Suen et al., 2020).

Suen and colleagues (2020) conducted a study to investigate the current issues of how questions related to sexual orientation and gender expression are being used in studies. The researchers used sexual and gender minority participants and were able to explore different perspectives and discuss new methods of proposing these types of questions.

**Use of Proper Dimensions and Open-Ended Questions.** When conceptualizing questions about complex structures such as sexuality and gender, it is important to make clear precisely what the question is asking (Suen et al., 2020). The interpretive processes used by respondents in gender and sexuality studies often revolve around their own conceptualizations of themselves and their own understandings of the topic at hand (Ridolfo et al., 2012). Therefore, it is essential to clearly state which dimension of sexuality or gender is being asked about. For instance, if a question asks to identify X's gender, what does this encompass? Sex assigned at birth? Gender expression? Gender self-identification? Thus, allowing for different interpretations, causing confusion and discomfort to participants (Bauer et al., 2017; Lombardi & Banik, 2016; Sell, 2007; Suen, 2020).

Additionally, rephrasing questions to avoid asking “what is...” towards asking “how do you describe” does not limit the participants' responses, allowing for richer, more specific answers.

This phrasing allows more non-binary, gender-expansive terms (Genderqueer, genderfluid, bigender, two-spirit). Consequently, researchers should opt for more open-ended questions as opposed to picking “one best answer”, which does not capture the complexity of the identities and experiences of all individuals (Lombardi & Banik, 2016; Suen, 2020)

### **The Gap in the Research – Gender Fluidity Theories Represented in Categorization Tasks**

Even though a great deal of research exists demonstrating that individuals can reliably judge the identities of those around them based on appearance without knowing the individual, many studies fail to acknowledge that these categorization judgments tend to be biased toward one identity over another (Alt & Lick, 2020; Lick & Johnson, 2016). Little to no research exists that reflects the lived experience of gender and sexuality fluidity through categorization tasks, as there tends to be a straight categorization bias (Alt & Lick, 2020). There could exist a multitude of reasons as to why perceivers continue to show the trend of categorizing in a more binary way. Alt and Lick (2020) propose that perceivers will accredit heavier consequences to incorrect gay categorization, which would compel individuals to gather and amalgamate available information in a manner that will favour straight categorization. Straight categorization could also stem from our own perceptual processes that rely on visible gendered cues, even though many people do not adhere to strict male/female-typical gender presentations, regardless of their sexual orientation. Gendered categorization is highly automatic (Hügelschäfer et al., 2016). Individuals often rely on gender inversion heuristics to categorize sexual orientations, categorizing those who are more gender-typical as straight and those who are gender atypical as gay (Freeman et al., 2010; Kite & Deux, 1987; Lick & Johnson, 2016).

## **The Present Study**

The current study aimed to investigate stereotypes on individuals' views of sexual orientation, gender identity and gender expression. This study investigated these stereotypes through the binary viewpoint of a modified IAT in conjunction with open-ended questions, which allowed space for more accurate responses that could reflect a more fluid view of gender and sexuality than the binary may impose. The contrast between these study pieces was investigatory and allowed the researchers to obtain an increased scope of participants' stereotypical tendencies and viewpoints. The modified IAT was used to measure implicit attitudes, while the open-ended questions allowed the participants time to carefully craft a response with more options than the typical male, female, homosexual, and heterosexual terms used in the IAT.

### **Hypotheses**

It was hypothesized that individual appearance would play a critical role in implicit attitudes (Gawronski & Bodenhausen, 2006; Lick & Johnson, 2014; Nuamann et al., 2009; Valentova et al., 2014 ). It was also hypothesized that those with a gender-non-conforming physical appearance would tend to be classified as homosexual (Blashill & Powlishta, 2012 Du et al., 2020; Ellemers, 2018; Herek, 1986). Additionally, it was hypothesized that homosexual couples would be rated more negatively than heterosexual couples (Asyraf-Zulkiffi & Rashid, 2019; Bailey et al., 2016; Keibel et al., 2020; Kite & Deux, 1987; Vehco, 2019). Finally, it was hypothesized that individuals will continue categorizing in a binary fashion, with a tendency to disregard gender fluidity (Alt & Lick, 2020; Anderson, 2020; Hyde et al., 2019).

## Methods

### Participants

One hundred and forty students from Laurentian University participated in this study. One participant had to be removed because they did not complete the task. They were recruited via SONA, an online recruitment system utilized by Laurentian for students in undergraduate psychology courses, allowing them to obtain extra course credits in appreciation for their participation. The ages of the participants ranged from 18 – 60, with an average age of 25.77. The study consisted mainly of female participants. Those who identified as female made up 84.8% of the sample. 77% of the sample identified as heterosexual, 3.4% identified as homosexual, and 12.4% identified as bisexual.

### Materials

**Modified IAT.** The modified Implicit Association Task that was used for this study was structured as a classic good/bad IAT (Greenwald et al., 1998). The modified IAT consisted of 7 blocks, making for 360 trials. Participants were instructed that this task requires them to distinguish words and pictures representing gay and straight couples. They were told they would also be presented with a set of good/bad words or images of couples to classify. They must do this as quickly as possible while making as few mistakes as possible. They were instructed to keep their index fingers on their keyboard's "E" and "I" keys to enable rapid responses. Two labels at the top corners of the screen told them which words or images go with each key, and each word or image has a correct classification. They were told that going too slow or making too many mistakes would result in an uninterpretable score. For best results, they were told to avoid distractions and stay focused.

The first block allowed participants to learn how to discriminate between both types of attribute stimuli (positive vs. negative words). The second block allowed participants to learn to discriminate between both types of target stimuli (homosexual vs. heterosexual). The third block brought both categories together. The fourth block began the first of two experimental blocks, the labels remained consistent. However, stimuli were replaced with real couple images instead of stick figure images. On the fifth block, the on-screen positions of the homosexual/heterosexual labels were inverted, so the participants had to re-learn how to discriminate between homosexual and heterosexual. The sixth block consisted of another training block, in which the attribute labels were re-introduced, but now in the contrary combination as in the fourth block. And finally, the 7<sup>th</sup> block was the second experimental block.

**Stimuli.** Forty-eight images were used, displaying ten different couple archetypes. Twenty-four images depicted heterosexual couples, and the other 24 images depicted homosexual couples, with varying representations of masculine men, feminine men, masculine women, and feminine women.

**Questionnaire.** The questionnaire consisted of three questions. Participants were shown the stimuli images of couples and asked for their written responses. The questions included (1) “How would you describe individual A’s sexuality, how would you describe individual B’s sexuality?”, (2) “How would you describe individual A’s gender identity, how would you describe individual B’s gender identity?”, and (3) “How would you describe individual A’s gender expression, how would you describe individual B’s gender expression?”. The participants completed these short answers for each of the 48 images used in the IAT. The responses were analyzed in accordance with the process of thematic analysis (Bradford et al, 2020; Braun & Clarke, 2006; Suen et al., 2020). Responses were coded and grouped based on identical



responses, and common themes were identified. The effect of gender expression on the identification of “male and female”, the effect of gender expression on “masculinity” and “femininity” and the effect of gender expression on the identification of sexuality.

### **Procedure**

Participants were initially directed to read and provide informed consent before completing the task and a brief demographics questionnaire. The participants were then redirected to either the IAT, or the open-ended questionnaire. If directed to the IAT, they would see words and images displayed on the screen. Participants were then instructed to sort the words or pictures on the screen into one of two categories as quickly and accurately as possible. The category labels were displayed at the top-left and top-right corners of the screen. The participants were shown a prompt that told them to sort the stimulus into the left category by pressing the “A” key and the stimulus into the right category by pressing the “L” key. They then continue this process for the remainder of the 360 trials.

If they were directed to the questionnaire, they were presented with one of the images of a couple. Under the image, there were three questions, allowing for open-ended responses, asking for their own description of the individuals in the image’s sexual orientation, gender, and gender expression. The wording of “how would you describe...” as opposed to “what is...” prompts the participants to give their viewpoints beyond the scope of what may be considered traditional responses such as “straight” or “female”, instead they may provide broader, fluid responses (Suen, 2020). They will then complete this for the 48 images used in this study.

## Results

### Response Times on IAT

#### *Data Cleaning*

Data cleaning was based on methods used by Dickinson and Szeligo (2008). Any responses below 100 ms were excluded, as these were likely just “fast guesses” (Adam & Van Veggel, 1991). In the current study, 0.26% of responses were removed for this reason. Within each condition, outliers were also removed. An observation was considered an outlier if it was situated +/- 3 standard deviations from the mean. 1.4% of responses were removed for this reason.

#### *Reaction Times Based on Good VS Bad Words*

A 2 X 2 within-subjects ANOVA was computed on the reaction times for the different word categories presented in the study (good vs. bad) for each condition (compatible vs. incompatible). Means and standard deviations are shown in Table 1. Results revealed a significant effect condition,  $F(1, 139) = 78.19, p < .001, \eta_p^2 = .36$ , of word category,  $F(1, 139) = .35, p = .558, \eta_p^2 = .00$ , and a significant interaction  $F(1, 139) = 14.50, p = .001, \eta_p^2 = .09$ .

**Table 1**

#### *Reaction Times based on Word Condition*

| Word Condition      | Mean   | Standard Deviation |
|---------------------|--------|--------------------|
| Compatible - Good   | 690.20 | 106.08             |
| Compatible - Bad    | 662.30 | 76.72              |
| Incompatible - Good | 775.56 | 181.63             |
| Incompatible - Bad  | 795.21 | 209.19             |

For simple main effects tests, Dunn’s correction was applied to alpha. Thus, the p-value had to be smaller than .013 to be considered significant. Simple main effects tests revealed that

reaction times were significantly faster for bad words in the compatible groups when compared to bad words in the incompatible groups  $F(1, 139) = 68.93$ ,  $p < .013$ ,  $\eta_p^2 = .33$ . Good words in the compatible group were also found to have quicker reaction times than good words in the incompatible group,  $F(1, 139) = 57.50$ ,  $p < .013$ ,  $\eta_p^2 = .29$ . When looking at word type within the compatible trials however, it was found that bad words in the compatible group had quicker reaction times than good words in the compatible group,  $F(1, 139) = 21.38$ ,  $p < .013$ ,  $\eta_p^2 = .13$ . Comparatively, good words in the incompatible group had over quicker reaction times than bad words in the incompatible group,  $F(1, 139) = 2.83$ ,  $p < .013$ ,  $\eta_p^2 = .02$ .

### ***Mean Differences – Compatible VS Incompatible Conditions***

Significant effects were found when comparing the size of the difference in reaction times between each of the couples in the compatible and incompatible conditions,  $F(9, 130) = 3.23$ ,  $p = .001$ ,  $\eta_p^2 = 0.18$ . The mean of the differences and standard error for the couples is presented in Table 2. Post hoc tests (LSD) revealed that the feminine female x feminine female couple had significantly smaller mean differences when compared to the feminine male x feminine female, feminine male x feminine male, masculine female x feminine female, masculine male x feminine male, masculine male x masculine female, and masculine male x masculine male couples. As did the feminine female x masculine female coupling, with significantly quicker reaction times when compared to the feminine male x feminine female, feminine male x feminine male, feminine male x masculine female, masculine female x feminine female, masculine male x feminine female, and masculine male x masculine male archetypes. Thus, for both of these couples, the reaction times were more similar in the compatible and incompatible trials than in the other couple archetypes. Additionally, the masculine female x masculine female couple archetype had significantly smaller mean differences than the feminine

male x feminine female, feminine male x masculine female, and masculine female x feminine female couple archetypes.

**Table 2**

*Means and Standard Errors of Reaction Time Differences for Compatible and Incompatible Conditions in Couples*

| Couple Archetype                               | Mean Difference | Standard Error |
|--|-----------------|----------------|
| Feminine Female x<br>Feminine Female           | -6.54           | 17.17          |
| <i>Feminine Female x<br/>Masculine Female</i>  | 15.00           | 20.03          |
| Feminine Male x<br>Feminine Female             | 91.37           | 16.92          |
| Feminine Male x<br>Feminine Male               | 59.64           | 18.17          |
| Feminine Male x<br>Masculine Female            | 77.20           | 22.34          |
| <i>Masculine Female x<br/>Masculine Female</i> | 27.00           | 121.33         |
| Masculine Male x<br>Feminine Female            | 86.52           | 16.33          |
| Masculine Male x<br>Feminine Male              | 69.78           | 16.47          |
| <i>Masculine Male x<br/>Masculine Female</i>   | 60.13           | 17.29          |
| <i>Masculine Male x<br/>Masculine Male</i>     | 67.03           | 18.02          |

### ***Reaction Times Based on Couple Archetype***

A 2 X10 within-subjects ANOVA was computed on the reaction times for the different couple archetypes (masculine man + feminine woman, masculine man + masculine woman, feminine man + feminine woman, feminine man + masculine woman, masculine man + feminine man, masculine man + masculine man, feminine man + feminine man, masculine woman + feminine woman, feminine woman + feminine woman, masculine woman + masculine woman) for each condition (compatible vs. incompatible). A main effect of condition was found,  $F(1,$

138) = 28.32,  $p < .001$ ,  $\eta_p^2 = .17$ . A significant effect was also found for the type of couple presented  $F(9, 1242) = 75.30$ ,  $p < .001$ ,  $\eta_p^2 = .35$ . A significant interaction was also found between conditions and couples  $F(9, 1242) = 3.96$ ,  $p < .001$ ,  $\eta_p^2 = .03$ . See Table 3 for means and standard deviations, and marginal means and estimates of standard errors for couple types are shown in Table 4

**Table 3**

*Reaction Times Based on Couple Archetypes*

| Couple Archetype                          | Compatible Condition |                    | Incompatible Condition |                    |
|---|----------------------|--------------------|------------------------|--------------------|
|   | Mean                 | Standard Deviation | Mean                   | Standard Deviation |
| Feminine Female x<br>Feminine Female      | 853.45               | 177.90             | 846.91                 | 206.02             |
| Feminine Female x<br>Masculine Female     | 930.24               | 200.60             | 945.24                 | 255.05             |
| Feminine Male x<br>Feminine Female        | 838.50               | 157.48             | 929.86                 | 210.28             |
| Feminine Male x<br>Feminine Male          | 811.16               | 170.42             | 870.80                 | 198.67             |
| Feminine Male x<br>Masculine Female       | 1019.81              | 200.89             | 1097.00                | 272.39             |
| Masculine Female<br>x Masculine<br>Female | 931.79               | 209.90             | 958.79                 | 193.48             |
| Masculine male x<br>Feminine Female       | 783.04               | 125.93             | 869.57                 | 193.48             |
| Masculine Male x<br>Feminine Male         | 799.43               | 149.70             | 869.22                 | 190.29             |
| Masculine Male x<br>Masculine Female      | 945.04               | 177.71             | 1005.17                | 203.49             |
| Masculine Male x<br>Masculine Male        | 798.75               | 186.93             | 865.78                 | 180.64             |

**Table 4**

*Overall Means and Standard Errors of Couples*

| Couple Archetype | Mean | Standard Error |
|------------------|------|----------------|
|------------------|------|----------------|

|  |         |       |
|--|---------|-------|
| Feminine Female x<br>Feminine Female           | 850.14  | 13.85 |
| <i>Feminine Female x<br/>Masculine Female</i>  | 937.74  | 16.69 |
| Feminine Male x<br>Feminine Female             | 884.17  | 13.30 |
| Feminine Male x<br>Feminine Male               | 840.98  | 12.80 |
| Feminine Male x<br>Masculine Female            | 1058.41 | 16.95 |
| <i>Masculine Female x<br/>Masculine Female</i> | 945.28  | 17.46 |
| Masculine Male x<br>Feminine Female            | 826.31  | 11.18 |
| Masculine Male x<br>Feminine Male              | 834.33  | 11.96 |
| <i>Masculine Male x<br/>Masculine Female</i>   | 975.11  | 13.71 |
| <i>Masculine Male x<br/>Masculine Male</i>     | 832.27  | 12.73 |

Simple main effects were computed to explore the interaction. Dunn's correction was applied to alpha, so for an effect to be significant, the *p-value* had to be smaller than .013.

**Compatible Trials.** For the compatible trials, a significant difference between couples was found  $F(9,1251) = 50.23, p < .013, \eta_p^2 = .27$ . Post hoc tests (LSD) revealed that the feminine male and masculine female couple had significantly slower reaction times when compared to all other couple archetypes. Comparatively, the masculine male x feminine female coupling had quicker reaction times when compared to the feminine female x feminine female, feminine female x masculine female, feminine male x feminine female, feminine male x masculine female, masculine female x masculine female, and masculine male x masculine male couple archetypes. Additionally, the masculine male x masculine female couple archetype had significantly slower reaction times when compared to the feminine female x feminine female, feminine male x feminine female, feminine male x feminine male, masculine male x feminine

female, masculine male x feminine male, and masculine male x masculine male couple archetypes. The masculine female x masculine female archetype had significantly slower reaction times when compared to the feminine female x feminine female, feminine male x feminine female, feminine male x feminine male, masculine male x feminine female, masculine male x feminine male, and masculine male x masculine male coupling. Whereas the feminine male x feminine male archetype had significantly quicker reaction times when compared to the feminine female x feminine female, feminine female x masculine female, feminine male x masculine male, masculine female x masculine female, and masculine male x masculine female couple archetypes.

**Incompatible Trials.** For the incompatible trials, a significant difference between couples was found  $F(9, 1242) = 37.30$ ,  $p < .013$ ,  $\eta_p^2 = .21$ . Post hoc tests (LSD) revealed that again, the feminine male x masculine female coupling resulted in the slowest reaction times when compared to all other couples. The feminine female x masculine female archetype was significantly slower in reaction time when compared to the feminine female x feminine female, masculine male x feminine female, masculine male x feminine female, masculine male x feminine male, and masculine male x masculine male archetype. Comparatively, the masculine male x masculine male couple archetype showed a significantly quicker mean reaction time than the feminine female x masculine female, feminine male x feminine female, feminine male x masculine female, masculine female x masculine female, and masculine male x masculine female archetypes. Additionally, the feminine female x feminine female couplings, resulted in significantly quicker reaction times when compared to feminine female x feminine x masculine female, feminine male x feminine female, feminine male x masculine female, masculine female x masculine female, and masculine male x masculine male couples. The masculine male x

feminine female archetype also showed significantly quicker reaction times when compared to the feminine female x masculine female, feminine male x feminine female, feminine male x masculine female, masculine female x masculine female, and masculine male x masculine female archetypes.

Overall mean reaction times were slower in the incompatible condition when compared to the compatible condition. With the larger effects found with feminine male x feminine female couples  $F(1, 139) = 28.42, p < .013, \eta_p^2 = .17$ . Feminine male x feminine male couples  $F(1, 138) = 10.72, p < .013, \eta_p^2 = .09$ . Feminine male x masculine female couples  $F(1, 139) = 12.96, p < .013, \eta_p^2 = .09$ . Masculine male x feminine female couples  $F(1, 139) = 27.85, p < .013, \eta_p^2 = .17$ . Masculine male x feminine male couples  $F(1, 139) = 19.02, p < .013, \eta_p^2 = .12$ . Masculine male x masculine female  $F(1, 139) = 12.96, p < .013, \eta_p^2 = .09$ . And Masculine male x masculine male couples  $F(1, 139) = 14.32, p < .013, \eta_p^2 = .09$ . Non-significant effects were found in the feminine female x feminine female couples  $F(1, 139) = .06, p = .808, \eta_p^2 = .00$ , feminine female x masculine female couples  $F(1, 139) = .69, p = .408, \eta_p^2 = .00$ , and masculine female x masculine female couples  $F(1, 139) = 1.42, p = .236, \eta_p^2 = .01$ .

## **Open-Ended Questionnaire Results**

### ***Data Analysis***

Open-ended questionnaire results comprised 1–4-word answers to the study's questions. Responses were interpreted using a standard multi-phase thematic analysis, as outlined by Braun and Clark (2006). Firstly, the researcher familiarized themselves with the data, reading and re-reading the data, noting down initial codes (Braun & Clark, 2006). Responses from all participants were extracted and compiled into a single document. Next, initial “codes” were identified, sorted, and grouped based on similarity (Braun & Clark, 2006). Similar codes were



combined to form overarching “themes” that encompass participants' responses to the questions pertaining to gender expression, gender identity, and sexual orientation. The variables explored in the study are complex and intertwined with each other. There is a large degree of overlap between participant's understanding of these variables, thus creating themes that are distinct but related to each other, as gender expression was found to have a heavy influence on the other variables. Given this, the themes identified included “non-stereotypical gender expression confuses gender identity,” centring around the interplay of gender expression and gender identity, “the unclear nature of defining non-stereotypical gender expression,” which dives into how individuals are able to classify gender expression, and “individuals with non-stereotypical gender expression are gay”, which explores the inferences made about sexuality based on gender expression.

### ***Non-Stereotypical Gender Expression Confuses Gender Identity***

When asked to identify the individual's gender identity, the terms male and female made up most of the responses. When shown photos of heterosexual couples, participants were more likely to respond with “male” or “female” when asked about gender identity. As well, even when shown photos of homosexual couples with typical gender expressions (masculine male + masculine male, or feminine female + feminine female), responses remained consistent with “male” or “female” for the correct images.

When in a couple where the gender expressions were not stereotypical (ex. masculine female + feminine male) there were significant variations in responses, particularly for feminine males. See Table 5 for examples of responses for a feminine male paired with a masculine male. To compare, responses for a couple with a masculine male and a feminine female are also presented in Table 5. See Figure 1 for a depiction of both couples.

**Table 5***Open Ended Questionnaire Responses for Gender Expression*

| Participant | Feminine male x Masculine female                            |   | Masculine male x Feminine female                       |  |
|-------------|---|---|--|--|
|             | How would you describe individual A's gender identity?      | How would you describe individual B's gender identity?      | How would you describe individual A's gender identity? | How would you describe individual B's gender identity? |
| 1           | cis woman   | genderfluid   | cis-man  | cis-woman  |
| 2           | Not sure.   | Identifies as Female  | Male   | Female   |
| 3           | female  | female  | male   | female   |
| 4           | woman   | male  | male   | female   |
| 5           | lesbian   | non binary  | Cisgender  | Cisgender  |
| 6           | female  | male  | Male   | Female   |
| 7           | Unisex  | Feminine  | male   | female   |
| 8           | bigender  | bigender  | Straight   | Straight   |
| 9           | Female  | Male  | M  | F  |
| 10          | Likely female, possibly male or nonbinary. Can't be certain | Likely male, possibly female or nonbinary. Can't be certain | male   | female   |
| 11          | Gender expansive  | Gender Fluid  | male   | female   |
| 12          | Cis female  | Non-binary  | male   | female   |
| 13          | Female  | Male  | Male   | Female   |
| 14          | female  | gender fluid  | cis-man  | cis-woman  |
| 15          | I do not know   | male  | Male   | Female   |

**Figure 1**

*Image of a feminine male x masculine female couple and masculine male x feminine female couple*



When considering these male and female responses, it is clear that gender expression played the largest role in participants' responses regarding gender identity. This is evident by the fact that even in homosexual couples, male and female labels remained consistent and accurate for any of the pairings (masculine male + masculine male, masculine male + feminine male, feminine male + feminine male, masculine female + masculine female, feminine female + feminine female, feminine female + masculine female). The varied responses were most commonly occurring in the depiction of straight couples (a male and a female) with atypical gender identities.

### ***The Unclear Nature of Defining Non-stereotypical Gender Expression***

Responses representing the theme of “the unclear nature of defining non-stereotypical gender expression” were common when participants were asked to describe gender expression. These responses revealed that gender expression was the most difficult concept for participants to describe in this study. Even when the images depict heterosexual couples (male and female pairings) different variations in gender expression will throw responses askew, with no real consistency throughout participants' responses. For instance, refer to Table 6 for an excerpt of

the types of responses gathered when showed a straight couple with atypical gender expression, and Figure 2 for a depiction of the couples.

**Table 6**

*Open Ended Questionnaire Responses for Gender Expression*

| Participant | Masculine female x Feminine male                        |   | Masculine male x Masculine female                        |  |
|-------------|---|---|--|--|
|             | How would you describe individual A's gender expression | How would you describe individual B's gender expression | How would you describe individual A's gender expression? | How would you describe individual B's gender expression? |
| 1           | gender nonconforming                                    | gender nonconforming                                    | masc presenting  | Gender Neutral expression                                |
| 2           | Male gender expression                                  | Female gender expression                                | Gender Neutral expression                                | non binary   |
| 3           | male  | female  | male   | female   |
| 4           | Non-binary  | Non-binary  | male   | feminine   |
| 5           | Manly   | Confusing   | masculine  | feminine   |
| 6           | Gender-expansive  | Gender-expansive  | masculine  | unknown  |
| 7           | unisex  | genderfluid   | male   | Feminine   |
| 8           | emotional   | regretful   | Masculine  | Gender nonconforming                                     |
| 9           | Female  | Male  | Masculine  | feminin  |
| 10          | Transgender   | Transgender   | masculin   | feminine with some masculinity                           |
| 11          | feminine  | feminine  | masculine  | Feminine   |
| 12          | androgynous   | feminine expression                                     | Manly  | not really into dudes                                    |
| 13          | Female  | Male  | kind of gay  | Nonbinary  |
| 14          | confident   | masculine   | Male   | fluid  |
| 15          | very feminine   | somewhat feminine                                       | masculine  |  |

**Figure 2**

*Image of a feminine male x masculine female couple and masculine male x masculine female couple*



|    | A's<br>sexuality? | B's<br>sexuality? | A's<br>sexuality? | B's<br>sexuality? | A's<br>sexuality?         | B's<br>sexuality?         |
|----|-------------------|-------------------|-------------------|-------------------|---------------------------|---------------------------|
| 1  | heterosexual      | heterosexual      | queer             | asexual           | gay                       | gay                       |
| 2  | Straight          | Straight          | Heterosexua<br>l  | Heterosexua<br>l  | Homosexual                | Homosexual                |
| 3  | straight          | straight          | gay               | gay               | Homosexual                | Homosexual                |
| 4  | straight          | straight          | heterosexual      | heterosexual      | gay                       | gay                       |
| 5  | straight          | straight          | Gay               | Gay               | homosexual                | homosexual                |
| 6  | bisexual          | straight          | straight          | bisexual          | gay                       | gay                       |
| 7  | straight          | straight          | straight          | straight          | gay                       | gay                       |
| 8  | Heterosexua<br>l  | Heterosexual      | Straight          | Straight          | bisexual or<br>homosexual | bisexual or<br>homosexual |
| 9  | straight          | straight          | straight          | non binary        | probably<br>gay           | probably<br>gay           |
| 10 | Heterosexua<br>l  | Heterosexual      | bisexual          | pansexual         | Homosexual                | Homosexual                |
| 11 | heterosexual      | heterosexual      | Straight          | Gay               | Gay                       | Gay                       |
| 12 | heterosexual      | heterosexual      | Heterosexua<br>l  | Heterosexua<br>l  | gay                       | gay                       |
| 13 | Straight          | Straight          | Bisexual          | Bisexual          | homosexual                | homosexual                |
| 14 | straight          | straight          | hetero            | hetero or bi      | gay                       | gay                       |
| 15 | straight          | straight          | straight          | bisexual          | homosexual                | homosexual                |

**Figure 3**

*Image of a masculine male x feminine female couple, masculine male x masculine female couple, and masculine male x masculine male couple*



## Discussion

This study explored the role of gender expression, gender identity, and sexuality in the processing of pictures of couples. More precisely, this study allowed us to investigate these topics through two different lenses with two different judgement tasks. In conjunction with the more fluid approach of the open-ended questionnaire, the binary viewpoint of the Implicit Association Test allowed for a broader scope of participants' stereotypical tendencies and viewpoints. The Implicit Association test was used to measure implicit attitudes, while the open-ended questions allowed the participants time to carefully craft a response with more options than the typical male, female, homosexual, and heterosexual terms used in the IAT. The current study helped to exemplify the significant role that gender expression plays in the formation of stereotypes, particularly stereotypes of sexual orientation and gender identity. These stereotyping tendencies were present in participants' implicit and explicit attitudes. Utilizing methods that consider both implicit biases and Queer Theory, the interaction between gender expression, gender identity, and sexual orientation were investigated.

This study's four hypotheses will be addressed throughout this discussion. The hypotheses were as follows (1) It was hypothesized that individual appearance would play a critical role in implicit attitudes (Gawronski & Bodenhausen, 2006; Lick & Johnson, 2014; Nuamann et al., 2009; Valentova et al., 2014). (2) It was also hypothesized that those with a gender-non-conforming physical appearance would tend to be classified as homosexual (Blashill & Powlishta, 2012; Du et al., 2020; Ellemers, 2018; Herek, 1986). (3) Additionally, it was hypothesized that homosexual couples would be rated more negatively than heterosexual couples (Asyraf-Zulkiffi & Rashid, 2019; Bailey et al., 2016; Keibel et al., 2020; Kite & Deaux, 1987; Vehco, 2019). (4) It was hypothesized that individuals will continue categorizing in a binary

fashion, with a tendency to disregard gender fluidity (Alt & Lick, 2020; Anderson, 2020; Hyde et al., 2019).

### **Gender Expression: The Driving Force of Judgements**

By the nature of the current study, participants were prompted to make inferences about gender expression, gender identity and sexuality. In reality, gender expression is the only dimension that participants should have been able to comment on, as this was the only construct being measured that is actually visible to onlookers (Ambady & Hallahan, 1999, Blashill & Powlishta, 2009 Sherif, 1982: Lehavot & Lamber, 2007). When prompted to describe gender identity and sexual orientation, on the other hand, the only true correct response would have been “it is impossible to tell” or “I don’t know.” While a few participants responded along these lines, very few stated there is no way for them to know this information. The only way to determine gender identity and sexual orientation would be by asking the individual. Regardless, it was found that gender expression played a large role in the use of judgements, labelling, and biases explored in the current study. Both implicitly and explicitly, participants were found not neutral to gender expression. It was impossible to ignore, difficult to quantify, and influential on impressions of gender and sexuality, regardless of identity.

Throughout this discussion, the topic of gender expression and its role in the current study will be explored. This includes stereotypical vs. non-stereotypical gender expression, the difference between gender expression and gender identity, and the interaction between gender expression and sexuality. Additionally, Queer Theory will be addressed with the use of a binary categorization process found in the current study. Finally, the use of judgements based on gender expression for both heterosexual and homosexual couples alike is discussed.



## **What is Gender Expression?**

Gender expression is not necessarily one's identity but rather the ways in which someone embodies and communicates their own individual gendered understanding of self (Anderson, 2020). Through gender expression, individuals can portray a sense of masculinity and/or femininity on a wide spectrum (Kessler & McKenna, 1985) This can be portrayed using names, clothing, hairstyle, body movements, etc., and does not necessarily align perfectly with male or female or gender identity. For many whose presentations defy gender expectations, gender expression may constitute a more self-aware and conscious embodiment that challenges others' evaluations (Anderson, 2020).

Martin-Storey (2016) posits that gender nonconformity predicts harassment and stereotypes even more so than sexual-minority status because it is much more visible to observers. Although there is still a stigma attached to sexual minority individuals, the ability of external observers to categorize identity plays a massive role in the experience of these stereotypes and judgements. However, it cannot be ignored that sexual identity and gender identity often go hand in hand in the perceptions of others. Gender non-conformity lends visibility to sexually diverse individuals and can increase the likelihood of adverse social outcomes, such as stereotypes or prejudice (Martin-Storey, 2016).

## **The Role of Gender Expression in The Current Study**

Ultimately, both implicit and explicit judgments were found to be deeply driven by gender expression. Previous research has revealed that negative biases exist for homosexual individuals (Banse, 2001; Steffens, 2005). These studies typically use written text and stories to measure these biases, but it is impossible to address gender expression, gender identity, and their differences using these methods. Few studies investigating gender expression and gender identity

have been noted. Consequently, it has been found that negative biases exist for non-stereotypical gender identities (Atwood & Axt, 2021).

Categorizing individuals with non-stereotypical gender expression proved to be a difficult task for participants in this study. A trend of stereotyping and a formation of judgements began to emerge in both the open-ended questionnaire responses and implicit association test data. Some used overtly negative, less socially acceptable judgements to form the stereotypical labels used to describe gender-diverse individuals in the open-ended questionnaire. Aside from negative labels, stereotypes and biases still emerged from the more socially acceptable words used in this study. Stereotypes result from preconceived notions that are formed about groups of individuals (Campbell, 1967). These can be used to rationalize negative group-based attitudes and reinforce discrimination, thus affecting how one perceives and treats the people around them (Biernat & Dovidio, 2000). These stereotypes were found in both judgement tasks used in this study.

### **Stereotypical VS. Non-Stereotypical Gender Expression**

The IAT revealed overall slower reaction times for couples with non-stereotypical gender expression (feminine male x masculine female, feminine female x masculine female, feminine male x feminine female, masculine female x masculine female, masculine male x masculine female) when compared to couples with stereotypical gender expressions, particularly the feminine female and feminine female couplings, and masculine male and feminine female couplings. This could be because gender categorization is a highly automatic process that inevitably occurs when the perceiver registers a new stimulus (Hugelschafer et al., 2016). It will occur immediately and does not require cognitive resources or conscious intent (Hugelschafer et

al., 2016). Hence why, when participants were reacting to non-stereotypical gender expression, it took more cognitive effort, which led to a slower response.

Additionally, in the open-ended questionnaire, those with non-stereotypical gender expression prompted a breadth of descriptors. For instance, in a masculine male and masculine female coupling, when describing gender expression, words were used such as “non-binary,” “masculine,” “feminine,” “female,” “gender nonconforming,” “androgynous,” “lesbian,” and “fluid” for the masculine female in a couple. For the masculine male, the words used were almost entirely “masculine,” “male,” or “man.” Typically, gender is quick to categorize, as was exemplified by the gender-conforming images in this study; however, when considering the individuals that did not have a stereotypical gender expression, it was not. This presentation stopped the automatic categorization process that typically would happen for a stereotypical gender expression and caused the participants to take time to pull more explicit, thought-out responses. Thus, revealing that knowledge on these topics was lacking.

Comparatively, couples with gender expressions that align with stereotypes will take minimal cognitive effort to identify and classify, because they follow the trend of what is expected (Wood & Axt, 2021). Not to mention, participants are able to pull descriptive words that are much more commonly used and understood. Implicit attitudes are often drawn from past experiences, and inevitably individuals will have more exposure to stereotypical gender expressions. People are more comfortable with what is deemed widely “acceptable” or “normal,” with a tendency to follow the rules set out by society (Heinze & Horn, 2014). Drawing upon social knowledge and group context based on physical appearance is a common occurrence when perceiving another's gender identity, and perhaps there is not yet enough social knowledge about non-stereotypical gender expression.

This exemplifies that non-stereotypical gender, much more than stereotypical gender, tends to perplex one's judgement about gender identity and gender expression. These results also show that while some can interpret a difference between the concept of gender expression and gender identity, a significant number of individuals are still unsure of the difference between these two concepts. Evidently, gender expression is not a fully understood or quantifiable topic. There is no universal term for particular presentations. Gender fluidity as a topic is not new; however, only in the past decade has it attained wide familiarity (Diamond, 2020). Nonbinary and gender-fluid individuals comprise quite a diverse group with a wide range of presentations (Diamond, 2020). The most considerable variation in the types of answers obtained in this study was when participants were asked to describe the gender identity of the people in the image.

### **Gender Expression and Gender Identity in Open-Ended Questionnaire**

Additionally, concerning gender identity and gender expression and their relationship in this open-ended questionnaire, results tended to vary. For instance, when presented with a man wearing a dress, a few participants described their gender identity as “female”, and gender expression as “a little bit of both”, whereas others answered with “transgender male to female” for gender identity and “female” for gender expression, and others described gender identity as “male” and gender expression as “doesn’t want to be in a dress”. To compare, when presented with a stereotypical woman in a dress, responses for gender identity were fairly consistently “female”, and gender expression responses were “feminine” or “female”. With a stereotypical man in a suit, responses were “male” for gender identity and consistently “masculine” for gender expression.

Gender is considered a primary feature in perception. Individuals will immediately and implicitly cluster unknown individuals by their perceived gender, regardless of the situation or

circumstance (Ellemers, 2018). However, gender identity is an internal process (Steensma et al. 2013). Gender identity refers to one's mental image of oneself; it is the extent to which someone experiences themselves as a member of a particular gender (Steensma et al., 2013). Gender identity typically develops in accordance with physical gender characteristics; however, this is not always the case. One's gender identity may differ from what was assigned at birth or what their physical appearance may suggest (Steensma et al, 2013). This exemplifies gender nonconformity, which refers to the extent to which individuals will fail to conform to gender-based societal expectations concerning behaviours, feelings, and appearance (Martin-Storey, 2016).

The notion of an apparent difference between gender expression and identity is not a new concept. However, it has gained more mainstream visibility over the years. During the nineteenth century, sexology was constructed as a new field of knowledge and inquiry in the fields of psychology and psychiatry (Kirkup, 2018). This eventually developed a body of literature on non-stereotypical genders and sexualities (Kirkup, 2018). This capability of beginning to discriminate between the two of concepts of gender expression and identity could be due to the notion that progressive attitudes are becoming more pervasive (Cleland et al., 2021). There has been a recent wave of moves against discrimination and an increase in education in these groups that have been historically subject to prejudice (Cleland et al., 2021). However, while great strides have been made, there is still much work to do in this area, as evident by the recent wave of anti-gay and anti-transgender protests occurring and policies implemented across North America. For instance, United States school systems introduced the “Don’t Say Gay” laws in 2023, and the “One Million March 4 Children” protests occurred across Canada (Kuchar, 2023; The Canadian Press, 2023).

## **Perception of Sexual Orientation**

It was hypothesized that those with a gender non-conforming physical appearance would tend to be classified as homosexual. While this was found to be true, it was also expanded upon greatly. The visibly “gendered” features displayed in the images used in this study were used as a basis for judging and classifying sexual orientation. For those with non-stereotypical gender expressions, the words “straight” or “heterosexual” were not the most frequently used to describe sexual orientation, even when depicted in an opposite-sex-appearing couple. Indeed, descriptors used for sexual orientation varied greatly for couples with non-stereotypical gender expression for both “homosexual” and “heterosexual” pairings. Additionally, it was found that couples with non-stereotypical gender expression produced the slowest reaction times amongst participants, whether or not the individuals were depicted in an apparent “heterosexual” pairing or “homosexual” pairing. Indicating that non-stereotypical gender expression is difficult to interpret and classify.

### ***The Role of Gender Expression on Perceptions of Sexual Orientation***

Participants viewed images of homosexual and heterosexual couples with varying gender expressions, and it is clear that gender expression played a role in the implicit bias toward homosexual individuals found in the IAT, especially when taking into account the explicit attitudes expressed in the open-ended questionnaire. Previous literature has noted that gender expression is typically used to base assumptions about someone's gender and sexual orientation (Anderson, 2020). Considering that sexual orientation and gender identity are invisible to onlookers, people will often rely merely on gender expression to infer and make judgements. This attribution process is often done immediately and may not come into conscious awareness

unless the individual challenges the viewer's pre-conceived gender expectations (Anderson, 2020).

Sexual prejudice affirms values that regard stereotypical gender roles and defends against anxiety that arises from violations of gender norms (Herek, 1984). Even from a young age, individuals will see a young boy who has long hair or is wearing a dress and categorize him as "gay" even though there is no way to know this child's sexual orientation (Kiebel et al., 2020). The pervasive expectation that individuals should act, dress, and look like a stereotypical presentation of their sex assigned at birth has been deeply embedded within white Western culture (Anderson, 2020). Previous literature confirms a widespread belief that homosexual men and women are more gender nonconforming than heterosexual men and women (Rieger & Savin-Williams 2012). Any visibly gendered features will inform perceptions of masculinity and femininity, which inevitably drive sexual orientation categorizations (Anderson, 2020). This study's results exemplify the stereotype that homosexual individuals will possess characteristics that violate traditional gender roles, including those associated with physical appearance (Blashill & Powlishta, 2009; Kite & Deaux, 1987). Consequently, it can be inferred that these stereotypes gathered by the people in the image's gender expression/ physical appearance led participants to exaggerate the similarities between members of these groups and their differences from other groups (Blashill & Powlishta, 2009). Hence categorizing individuals with non-stereotypical gender expressions as gay.

### ***Negative Homosexuality Bias***

While results indicate that gender expression played a role in the classification of sexuality, it is also important to note that the previously established homosexuality bias was present in the current research. When comparing reaction times between compatible and incompatible

conditions, biases emerged. Compatible trials had the label “good” paired with “heterosexual” and “bad” paired with “homosexual. Incompatible trials had the label “good” paired with “homosexual” and “bad” paired with “heterosexual”. The larger the disparity between reaction times when sorting in an incompatible trial, compared to a compatible trial, indicates that it is easier for the individual to mentally associate “bad” words with “homosexual” than it is for them to mentally associate “good” words with “homosexual”, and vice-versa for “heterosexual” (Greenwald et al., 1998).

Overall, the Implicit Association Task results indicate an implicit association between the terms “heterosexual” and “good”, as well as “homosexual” and “bad”. These results can be interpreted as an implicit bias towards homosexual individuals. Heterosexuality has a long-standing history of being more socially accepted than homosexuality (Asyraf-Zulkiffi & Rashid, 2019; Bailey et al., 2016; Keibel et al., 2020; Kite & Deux, 1987; Vehco, 2019). Inherently, perceptions of sexual orientation tie in heavily with individual views on traditional gender roles. Heterosexuality is the prevailing norm as most adolescents are socialized towards heterosexual behaviours and relationships, and this carries into adulthood (Heinze & Horn, 2014).

The only homosexual couple that did not show this trend, was the feminine female x feminine female couple. For this couple, reaction times were overall slightly quicker in the trials that associated the words “homosexual” and “good” rather than “homosexual” and “bad”. Indeed, the two female x female couple archetypes were found to have the smallest difference between the compatible and incompatible trials, indicating that this homosexuality bias was not as present for lesbian couples, even though these couples were still consistently labelled as “gay”, “homosexual”, or “lesbian” in the open-ended questionnaire.



Previous literature has noted that men's attitudes towards sexual minority individuals were more negative when compared to females (Anselmi et al., 2015; Herek, 2003; Sakalli, 2002; Steffens, 2005). Consequently, Steffens (2005), previously found that women's attitudes towards lesbians on an IAT were repeatedly positive. Because the vast majority of participants in the current study identified as female, this could account for the fact that lesbian couples did not show a strong negative bias in the IAT. Additionally, this trend found with the lesbian couples used in this study could be because female platonic touching has been well socialized, and the appearance of two feminine women together was not processed as lesbian.

### **Queer Theory vs. Binary Categorization**

Queer Theory is a transdisciplinary concept applied to research methods centering queer identities (Watson, 2005). Dilley (1999) states that Queer Theory can encompass an examination of the lives and experiences of those considered non-heterosexual, the juxtaposition of those lives/experiences with the lives/experiences of those considered “normal,” and the examination of why those lives and experiences are considered outside of the norm. The current study follows methods encouraged by the findings of the qualitative study conducted by Suen et al. (2020), who investigated methods of increasing inclusion and accurate empirical representation. Past research has noted that sexual orientation and gender identity questions did not allow for identity fluidity and complexity, had unclear dimensions, and reduced representation (Suen et al., 2020).

Terms such as gender fluid, genderqueer, or non-binary are increasingly used to describe gender identities and expressions that may tend to differ from the typical binary concepts of gender, like male or female, masculine or feminine (Diamond, 2020). With the use of the Implicit Association Test in this study, which relies on a binary categorization method to

investigate implicit attitudes, it was also essential to address Queer Theory, allowing for more fluid responses to describe the complex topics addressed in this study. The gender binary has shaped the history of psychological science (Hyde et al., 2019). However, the existence and lived experience of transgender and non-binary individuals challenge these gender binaries that are so widely used and provide evidence that gender expression, gender identity, and sexual orientation are all very distinct topics (Hyde et al., 2019). Suen et al. (2020) proposed that when presenting questions meant to address sexuality and gender, it must be approached in a way that acknowledges identity fluidity. This includes being specific about the exact dimension of gender or sexuality being asked about (i.e gender identity or gender expression), allowing for write-in responses, and using terms such as “describe” to allow for more open responses (Suen et al., 2020).

### ***The Use of Binaries in the Current Study***

However, when given the chance to describe their thoughts and opinions, this study's explicit results mainly followed a binary categorization process. Terms that do not follow a binary, such as “queer”, were used sparsely. While it did differ widely, most of the terminology used was still categorical in nature. Instead of using more fluid descriptors, participants used binary terms that affix the individual to a specific established identity. While terminology in this area can be complex, it is clear that more expansive terms must be considered (Hyde et al., 2019). Several different terms emerged that were used to describe homosexuality and diverse gender expression that went far beyond the two distinct categories of “heterosexual” and “homosexual” used in the Implicit Association Test but still stuck the individual down to one specific identity. Terminology is more expansive than anticipated while still following a binary coding fashion.

### **Effect of Gender Expression for Both Homosexual and Heterosexual Couples**

Consequently, the novel finding of this study was that his study found that for both men and women, both homosexual and heterosexual, gender expression drove stereotypes. Reaction times were the slowest for couples with non-stereotypical gender expressions, regardless of whether it was a “homosexual” pairing or a “heterosexual” pairing. Additionally, it was found that homosexual couples with stereotypical gender expressions were just as easy to quantify in the questionnaire, with results as consistent from participant to participant as they were for gender-stereotypical heterosexual couples. Indeed, in a feminine female and feminine female couple, when asked to describe gender identity, the majority of responses were “female”. When asked to describe gender expression, the majority of responses were “feminine”. When asked to describe sexuality, the majority of results were “homosexual”, “lesbian”, or “gay”.

Moreover, even though participants knew the images they were being shown depicted a “couple”, when defining sexuality, responses ranged from “straight”, “lesbian”, “queer”, “pansexual”, “bisexual”, “LGBTQIA”, “gay” and much more when showed two individuals with non-stereotypical gender expression, for instance, feminine male and masculine female coupling, masculine female and masculine female couples, feminine male and feminine male couples, masculine male and feminine male couples, and masculine female and feminine female couples.

To compare, when presented with stereotypical couples, such as a feminine female and masculine male couple, participants were much more unanimous in their labels. To describe masculine men, the term “male” was given most often when asked about gender identity, and the term “masculine” was given most often when asked to describe gender expression. Additionally, to describe a feminine woman in these couplings, “female” was most often used to describe

gender identity, and “feminine” was most often used to describe gender expression. Additionally, for these couples, sexuality was more unanimously described as “heterosexual” or “straight”.

In comparison, when one female in the couple was masculine and one was feminine, participants began to show more variation in results than they did for feminine female and feminine female couples. To describe the masculine female in the couple's gender identity, the term “female” was still most consistently used. However, when describing gender expression, responses ranged from “gender neutral”, “masculine”, “female”, “non-binary” etc. When asked to describe the sexual orientation of the masculine female, more terms such as “bisexual” and “pansexual” were used in addition to “homosexual” and “lesbian”. These results exemplify the amount of influence that gender expression has on stereotypes and perceptions.

### **Clinical Implications**

Asserting one’s transgender or gender nonconforming identity and expression is incredibly important for those who live in cultures with rigidly defined gender role expectations based on the sex you were assigned at birth (Grossman et al., 2006). Gender roles set expectations for appropriate physical presentations and behaviours from a very young age, and these socially accepted categories of gender role behaviour significantly impact development (Grossman et al., 2006). Gordon et al. (2018) found that the odds of being targeted for bullying and violence were found to differ by gender expression significantly. Additionally, elevated odds of fighting, injury needing treatment and missing school due to feeling unsafe were found in boys and girls with higher levels of gender non-conformity (Gordon et al., 2018). In another study conducted amongst high school students, elevated levels of sadness and hopelessness were found, as well as increased suicidal thoughts and behaviours were all associated with gender non-conformity (Lowry et al., 2018).

These findings could be because rigid cultural roles and expectations placed on individuals based on their sex and gender expression lead to increased feelings of self-doubt and isolation, which could, in turn, lead to negative health outcomes (Lowry et al., 2018). Teaching children acceptance from a young age is crucial. Most children will develop the ability to label others according to gender between 18 and 24 months of age (Diamond, 2020). Growing up, children are often exposed to pervasive gender categorization in the form of names, clothes, hairstyles, and toys, all of which help to internalize their cultures' view of the binary nature of gender (Diamond, 2020). Consequently, all gender-diverse people of any age may face social and familial acceptance challenges, knowing these stereotypes and judgements exist (Diamond, 2020). Exposure to stressors such as stigmatization, rejection, violence, and discrimination contribute to increased psychological distress, which can affect both mental and physical well-being (Diamond, 2020)

Results from the current study further exemplify the driving force that gender expression has on judgements and stereotypes. Differences need to be made in the way that children and adults are socialized to gender roles and, in turn, expressions of gender. Exposure to diverse identities and ideas can help to increase tolerance and understanding. With terms such as transgender, gender fluid, genderqueer, or nonbinary becoming increasingly used to describe gender identities and expressions that differ from stereotypical binary concepts of gender, a more thorough understanding and appreciation is necessary.

### **Limitations**

The study was completed by participants entirely online. This meant that participants followed a link to the different components in the study and guided themselves through the process without the researchers being present. For the open-ended questionnaire, the participants

were prompted to make judgements based on images, which may not entirely reflect how they may behave in a real-life scenario. Due to the study's parameters, they may have felt obligated to provide an answer, essentially forcing an explicit judgment. Additionally, the study being conducted virtually could have impacted the quality of responses. Different answers may have been provided if the participants were interviewed in person.

Another limitation of the current study would be the population used. The population consisted solely of university students, which could create a potential cultural bias as a limitation. Not to mention, most of the population in this study self-identified as heterosexual and female. Collecting data from a more widespread range of individuals could have given the potential to generalize the findings further. Additionally, the average age of participants was young, with the average age being 25. Younger individuals and college or university-educated individuals are among the already identified groups with a higher tolerance and acceptance for LGBTQIA+ individuals (Ayoub & Garretson, 2017; Cheng et al., 2016; Geer & Robertson, 2005). Despite this, the results of this study still showed a bias and a tendency to categorize in a binary fashion. In the future, the topic of gender expression should be focused on and more deeply explored. There are several facets of gender and gender expression to be explored in relation to different aspects of Queer Theory.

### **Conclusion**

Lord (1996) stated that sociology would assume each person to have one sex, one sexuality, and one gender, which would be congruent with one another and will stay fixed for life. These are the mindsets that Queer Theory exists to challenge. The open-ended questionnaire results exemplify the benefit to the use of Queer Theory-supported qualitative methods, particularly when exploring gender identity. In giving participants opportunities to deconstruct

the binaries and take a moment to express their knowledge of the differences between gender expression and gender identity for instance, rich and diverse descriptors were used that can better encompass queer identities. Gender expression is incredibly difficult to dichotomize. While some participants were able to deconstruct binaries using these methods, many still used rigid terms to describe these concepts. This contributes to the continued effort that is central to Queer Theory and emphasizes the need to focus on identities that do not neatly fit into stereotypical categories (Valocchi, 2005).

To conclude, the contrast between the two pieces of the study (both quantitative and qualitative) allowed us a better overall picture. Indeed, in line with previous literature, an implicit bias was found for homosexual individuals over heterosexual individuals. However, this study built upon these findings and found implicit biases for both heterosexual and homosexual individuals of any gender, all based on gender expression. While it was found that participants tended to favour heterosexual couples over homosexual couples in the modified Implicit Association task as evidenced by the disparity in reaction times between the congruent and incongruent trials, it was also found that homosexual and heterosexual couples with non-stereotypical gender expression elicited the slowest reaction times. Additionally, results from the open-ended questionnaire indicated that gender expression played a major role in forming and identifying stereotypes about sexual orientation and gender identity. Overall, this study's results can conclude that gender expression heavily influenced participants' views on homosexuality and gender identity.

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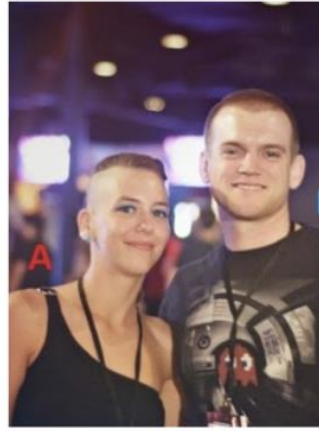
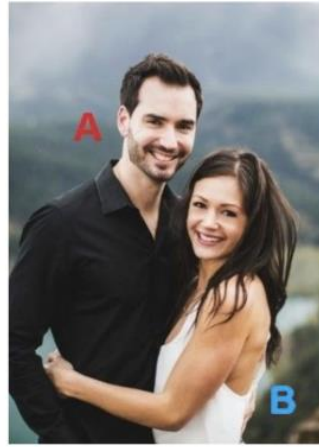
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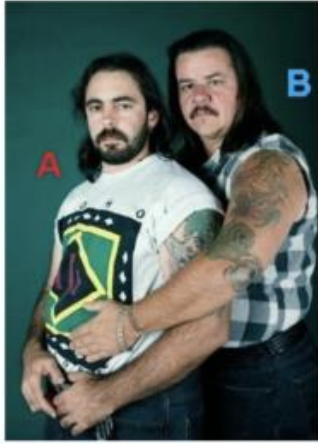
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Appendix A – All Stimuli











## Appendix B – Implicit Association Test Instructions

Straight People

Gay People

Put your index fingers on the 'E' and 'I' keys of your key board.

Words or images representing the categories at the top will appear one-by-one in the middle of the screen.

When the item belongs to a category on the left, press the 'E' key; when the item belongs to a category on the right, press the 'I' key. Items belong to only one category.

If you make a mistake, an X will appear- correct the error by hitting the other key.

This is a timed sorting task. GO AS FAST AS YOU CAN while making as few mistakes as possible.

Going to slow or making too many errors will result in an uninterpretable score.

Press space to begin trials.

Straight People

Gay People



### Appendix C – Open Ended Questionnaire Sample



1a) How would you describe individual A's sexuality?

1b) How would you describe individual B's sexuality?

2a) How would you describe individual A's gender identity?

2b) How would you describe individual B's gender identity?

3a) How would you describe individual A's gender expression

3b) How would you describe individual B's gender expression?

Next Page >>

## Appendix D – Informed Consent Script

### Consent

I consent to participating in this study entitled “Exploring Implicit and Explicit Stereotypes” conducted by Alexandra Deck, MA Applied Psychology student at Laurentian University, in the department of psychology. Supervised by Dr. Annie Roy-Charland and Dr. Joel Dickinson.

My participation will consist of approximately 1 hour long online session, completing a computerized task and responding to questionnaire items. The results will be kept confidential, and only the research team and their supervisor will have access to them. No personally identifying information will be disclosed. However, digital data will be kept indefinitely (with no ID or reference numbers connecting participants to their data) and may be used for publications in the future.

My participation is strictly voluntary, and I am free to withdraw from the study at any moment or refuse to participate without any penalty. Although it would be preferable that I answer all questions, if I am uncomfortable with any particular question, I am free to abstain from answering it.

If you have any ethical concerns about this study, you may contact: Dr. Rousseau (Chair of ethics committee) with the Laurentian University Psychology Department Ethics committee. You may contact Dr. Rousseau at [rousseau@laurentian.ca](mailto:rousseau@laurentian.ca) or (705) 675-1151 ext. 4253. If you have any concerns about the ethical conduct of this study, you can contact the Laurentian University's Research Ethics Board (LUREB) at [ethics@laurentian.ca](mailto:ethics@laurentian.ca)

If you should have any questions regarding this study please feel free to ask or to contact the research supervisor, Dr. Annie Roy-Charland at [annie.roy-charland@umoncton.ca](mailto:annie.roy-charland@umoncton.ca). Please click agree, if you consent to participation in this study.

**Please select "Yes" if you wish to proceed with the study.**

\* must provide value

Yes  No

[reset](#)

**Submit**

## Appendix E – Debriefing Script

### Debriefing Information

Thank you for participating in this study conducted by Alexandra Deck, MA Applied Psychology student, and co-supervisors Dr. Annie Roy-Charland and Dr. Joel Dickinson.

Making initial judgements of others and forming mental stereotypes is a common practice that everyone has participated in or experienced at some point in their lives. Having access to the knowledge of categories allows someone to participate in the judgement, identification, and inference about members of these categories.

All in all, this act of categorization is what leads to the formation of stereotypes. Furthermore, gender expression and sexual orientation seem to have heavy influences on each other, and tie together strongly in how we evaluate those around us. When people get classified into different social categories, inevitably a set of social norms are formed to judge each other against. Rarely are these norms going to specify exact behaviors that are shown by all members of the group. However, these behaviors still help to form additional stereotypes and will influence attitudes and perceptions. This study investigates stereotypes about gender expression and sexual orientation through the binary viewpoint of an Implicit Association task in conjunction with open ended questions, which allow space for more fluid responses.

To recap, all personal information obtained through the informed consent form will be kept separate from the experimental data, ensuring anonymity and confidentiality. We would ask you to please refrain from discussing any of the information surrounding this research study with others. These individuals could potentially participate in this study and any information that they have prior to it may affect the results that we collect from them.

If you have any concerns about the ethical conduct of this study, you can contact the Laurentian University's Research Ethics Board (LUREB) at [ethics@laurentian.ca](mailto:ethics@laurentian.ca)

If you should experience any discomfort or distress due to your participation in this study, you may contact the student researcher or their supervisor by their aforementioned emails, Laurentian University's Counselling Services ([counselling@laurentian.ca](mailto:counselling@laurentian.ca), 2nd Floor, R.D. Parker, open Monday-Friday 1-3pm), the Regional pre-crisis Warm Line (1-866-856-9276, open 6pm-12am), or Crisis Intervention (705-675-4760, open 24 hours).