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## Constructed Identities and Perpetuated Inequalities in App Dating

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## Constructed Identities and Perpetuated Inequalities in App Dating

### Abstract

This study seeks to investigate the ways in which individuals make sense of the nearly overwhelming amount of information they are presented with in an application like Tinder, and the ways in which their experiences at the confluence of the digital and “real” worlds are informed by various forces, including race and ethnicity. In particular, it seeks to determine how the experiences of marginalized groups are represented (and underrepresented) through the design and use of the app. By engaging with students at the University of Pennsylvania through a series of semi-structured interviews, this study reveals that users are enmeshed in a constant and ever-evolving relationship with the app. They appear to be endlessly renegotiating how they make sense of their own expectations and desires, as well as the means by which they attempt to speak to something broader than themselves.

### Keywords

tinder, race, inequality, online dating, identity, reality construction, digital spaces

### Disciplines

Anthropology

CONSTRUCTED IDENTITIES AND PERPETUATED INEQUALITIES IN APP DATING

By

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In  
Anthropology

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Department of Anthropology  
University of Pennsylvania

Thesis Advisor: Dr. Morgan Hoke

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# Abstract

This study seeks to investigate the ways in which individuals make sense of the nearly overwhelming amount of information they are presented with in an application like Tinder, and the ways in which their experiences at the confluence of the digital and “real” worlds are informed by various forces, including race and ethnicity. In particular, it seeks to determine how the experiences of marginalized groups are represented (and underrepresented) through the design and use of the app. By engaging with students at the University of Pennsylvania through a series of semi-structured interviews, this study reveals that users are enmeshed in a constant and ever-evolving relationship with the app. They appear to be endlessly renegotiating how they make sense of their own expectations and desires, as well as the means by which they attempt to speak to something broader than themselves.

# Introduction

## Project description

This study seeks to investigate how the presumably democratizing power of the internet is mediated by cultural forces to reproduce social inequalities from the “real world” in a digital space, specifically the environment of Tinder, a mobile application used for online dating. Of particular interest is the apparent tendency for people to prefer to interact with other people that resemble them in some way. Current research on Tinder includes ethnographic investigations of its users and quantitative analyses of gross user behavior and the implications that has for understanding human mating behavior (Albury 2017; Sevi et al. 2017; Sumter et al. 2017; Tyson et al. 2016; Carpenter & McEwan 2016; Ligtenberg 2015); research has also been undertaken that delves more broadly into attraction and the way human behavior is altered by being projected into a digital space, as well as how other features that are now considered characteristic of the internet (such as anonymity) have altered the way humans interact in digital spaces (Albury et al. 2017; Blackwell & Birnholtz 2014; Daniels 2012; Ellison, Hancock & Toma 2012; Gibbs, Ellison & Heino 2006).

This project involves conducting a study of Tinder, looking specifically at how participants wade through a diverse pool of applicants to produce a subset of matches that may bear a closer physical resemblance to them or to a particular trait that they possess. This tendency has already been demonstrated in previous work with

researchers finding that people tend to choose partners with similar political leanings, religious affiliations and racial backgrounds as themselves (Huber & Malhotra 2016). It is also worth investigating the way an interaction mediated by a digital space can distort the interactions that take place within it; greater anonymity on some dating sites has been associated with both a reduction in homophilic leanings -- participants are more willing to consider partners with dissimilar racial and educational backgrounds -- but ultimately results in greater “choosiness” or selectivity among those they match with (Bapna et al. 2016).

## Background -- what is Tinder?

Tinder is a popular mobile application for online dating. It matches users based on self-described limits on age, location and sexual preference. Popularly regarded as a “hook-up” application, Tinder presents an extremely simplified selection process that uniquely suits it to examine the internalized assumptions and preferences guiding human behavior. The application operates through a simple interface that is very easy to quickly understand. The profile picture of a potential “match” is displayed in the center of the screen, and users are prompted to swipe either left or right; left denotes a rejection, while right corresponds to a “like”, symbolized by a heart. Additional features are available for purchase but are outside the scope of this research. Users can also tap on the image to view the profile. When creating their profile, they can include up to six images as well as a short biography (maximum of 500 characters). If two users both

swipe right on one another, it results in a match; they are then both presented with the option of messaging the other or continuing to swipe on potential matches.

## Literature Review

### Motivations

Tinder is popularly derided as a “hook-up” application, and this portrayal has made it a popular topic of discussion in both public and academic circles (Ranzini & Lutz 2016; Farber 2016; Ansari & Klinenberg 2015; Murphy 2015). Existing research on Tinder has largely focused on investigating the motivations underlying users’ engagement with the application, particularly in an effort to investigate whether it is really intended to serve as a venue for casual sex (Sumter et al. 2017; Timmermans & De Caluwé 2017; Ligtenberg 2016; James 2015). In fact, the majority of active Tinder users report downloading the app with the hope of ultimately obtaining a long-term, committed relationship, rather than the casual relationships the app is associated with (Timmermans & De Caluwé 2017; Sumter et al. 2017; Ligtenberg 2015). The primary difference between Tinder users and users of other online dating services and applications is their age: Tinder caters to a noticeably younger demographic (Gatter, Hodkinson & Kollé 2016). Additionally, it tends to be more popular among and targeted towards cisgender and heterosexual individuals (Timmermans & De Caluwé 2017; March et al. 2017; Mason 2016).

A body of work has been undertaken in order to ascertain specific details of the user experience, particularly within the venue of what is known as “uses and gratifications theory”. In other words, operating under the belief that individuals make use of social media -- and specific platforms within that designation -- as a means of servicing particular needs (Ligtenberg 2015). This work has primarily relied on a quantitative analysis of the numerical data associated with use, as well as responses to surveys and questionnaires (Ligtenberg 2015).

While the majority of users report initially downloading the app out of a desire to form meaningful relationships with others and in the hope of engendering a romantic partnership, only 45.5% of those studied in one sample reported ever having actually gone on a date with someone that they met through the app (Sumter et al. 2017). This begs the question: what prompts individuals to continue swiping when the use of such apps rarely leads to fulfillment of users’ goals? An analysis of the uses and gratifications associated with users’ involvement with the app has revealed that the most popular reasons for continuing to make use of the app are entertainment, passing time, and relaxing (Ligtenberg 2015). Although some of the scholars working in this field anticipated that women, in particular, were making use of Tinder as a means of reinforcing or increasing their own self-esteem and sense of self, an investigation of this hypothesis revealed that there was no greater tendency among women versus men (Ligtenberg 2015). The researchers also proposed that self-awareness was one potentially powerful motivator for users -- essentially the notion that by curating a profile and using the app, users could obtain a better understanding of themselves and

their own attractiveness and appeal on the dating scene (Ligtenberg 2015). Other forms of social media -- Facebook, for example -- have already demonstrated the preceding phenomena (Ligtenberg 2015).

Research has revealed that the existence of a “mismatch” between the gratifications prompting users to download and engage with the application versus the actual results of their experiences can be frustrating and ultimately encourage “giving up” on the app altogether (Sumter et al. 2017; Ligtenberg 2015). They recommend further research into the details prompting this tendency towards exodus, specifically through interviews as a means of more deeply investigating this occurrence as well as experiences with the app more broadly (Ligtenberg 2015). Other researchers cautioned that, although the rapid proliferation of apps for online dating -- particularly ones that are location-based -- may indicate that dating in the modern world is easier than ever, it is not necessarily the case; they warn that such a perception may in fact render the experience of being single as especially difficult (Sumter et al. 2017). David & Cambre (2016) explore the way the notion of intimacy is constantly constructed and redefined as individuals engage with the application; they highlight the importance of the “swipe” as aiding depersonalization and subjectivization. Additionally, they describe Tinder as a place for self-presentation, rather than self-expression, and link its success to a broader societal tendency to appropriate the individual as a venue for advertising (David & Cambre 2016).

Further research has focused on the personality traits most common in users of Tinder and other dating services as compared to non-users and users of other services (March et al. 2017; Timmermans & De Caluwé 2017; Gatter, Hodkinson & Kolle 2016; Valkenburg & Peter 2007). Contrary to the popular stereotype of online daters as “desperate” or insecure, users and non-users display comparable rates of most major personality traits (Timmermans & De Caluwé 2017; March et al. 2017; Gatter, Hodkinson & Kolle 2016). Although some scholars claim that there is still a negative stigma associated with using online dating services (March et al. 2017), others argue that it has mostly evaporated, particularly among “emerging adults” and that online dating applications can be considered a characteristic part of single life today (Timmermans & De Caluwé 2017; Ranzini & Lutz 2016; Roeffen 2014).

An important limitation of this research is that it neglects to consider the experiences of people of different ethnic and racial backgrounds, gender identities, or sexual preferences; these studies were focused exclusively on white heterosexuals. One study, focused on an Austrian population, saw even nationality to be a potentially confounding influence; they recommended future work be focused solely and specifically on American users (Gatter, Hodkinson & Kolle 2016). Representative research is thus necessary in order to obtain more meaningful results.

Additional research has investigated the interplay between apps like Tinder and what has been deemed “social media eroticism” or the ways in which racial identities are exploited and objectified in a digital space (Toomey 2017; Mason 2016). By including

photos of themselves doing humanitarian work in their profiles, users capitalize off of the construction of a white identity made salient by its association with an “Other” (Toomey 2017). Similarly, other work specifically examining the way desire is racialized has revealed the extent to which racial hierarchies of power are reproduced through fetishization, as certain bodies become seen as more desirable based on often stereotypical racial characterizations (Mason 2016).

## Modern romance/the rise of online dating

the proliferation of a digital space & its implications

We live in an era that is characterized by extensive, pervasive digitization. The rise of the New Media Age, following the advent of the Digital Revolution, has, in many ways, rewritten the basic tenets of our world and redefined the means by which we interact with one another. The “Information Age” is characterized by the rapid development and spread of digital technology, particularly through the commoditization of products designed to create an intimate, user-based experience such as smartphones, personal computers and at-home gaming devices. As such, it has inoculated a new generation with a wealth of information at their fingertips and an innate familiarity with navigating a completely novel mode of human and societal interaction (Alberts & Papp 1997). Our growing reliance on technology as well as the digital “space” it has produced, has forced scholars to reconsider the methods and strategies they employ in their endeavors to make sense of human behavior, cognition, and development (Zhao 2006).

Furthermore, while the proliferation of cellular phones has revolutionized society, the establishment of smartphones as objects intrinsic to daily life, has completely redefined the way our social networks are organized while simultaneously forcing us to reimagine our basic understanding of the world.

## CYBERSPACE AS REAL SPACE

As the internet began to gain popularity and become ubiquitous among the public, many researchers expressed a belief that it represented a new environment in which people could interact freely, without the discrimination found in everyday life (Tynes et al. 2016; Daniels 2012). Many described a view of the Internet as a “democratic” space, in which it would be possible for all users to engage in an equal, egalitarian manner (Ess 2001; Negroponte 1995). While some (Kolko et al. 2000; Nelson et al. 2000) expressed a fear that the internet would be more racially divided than any real world environment, these views were in the minority (Daniels 2012). The popular view persisted: the internet represented an environment that was beyond the patterns of racial and sexual discrimination found in the “real world”.

However, as the decades continued and the internet became more fully integrated into “normal” life, a growing body of research began to accrue that demonstrated a more complex picture. Neither of the preceding expectations held true. The internet has been demonstrated as a space decidedly unfree from the traditional patterns of discrimination associated with non-digital life (Holmes 2016; Tynes et al. 2016; Daniels

2012; Valkenburg & Peter 2007). Additionally, race is not more important online than it is in reality; instead, race matters in some similar ways, as well as in ways that are distinct to the digital environment (Daniels 2012). Investigating the manifestation of privilege in a digital space reveals that those who have the most power online are the same as in “real” life: white, middle-class men (Holmes 2016; Kendall 2002).

Judith Butler offers the idea of what she refers to as the “heterosexual matrix”, a means by which underlying assumptions about gender and race become projected onto other users, allowing the experiences of the majority to dominate even in supposedly “free” or “post-racial” spaces. Other scholars have discussed the way whiteness has, historically, been embedded in the very technologies of the web since it was created (Daniels 2012; Taborn 2008; White 2006; Nakamura 2002). Even recent social media, designed to be used by diverse audiences, are encoded with a normative framework that fosters discrimination (Koltsova et al. 2017; Duguay 2016; Bivens 2015).

The internet offers new ways for race to become embodied: namely, through the existence of so-called “identity tourism”, which Jessie Daniels describes as “people using the playful possibilities of gaming to visit different racial and gender identities online” (Daniels 695). The anonymity provided by using the Internet for various services -- chat rooms, forums, online dating sites -- makes the process of depicting the self an extremely conscious and deliberate one. This becomes further complicated when

users struggle with the additional pressures of attempting to render authenticity via their constructed selves.

More recent research has revealed that, when navigating online dating spaces, adding an extra layer of anonymity makes users consider more profiles of individuals of different racial and ethnic backgrounds (Bapna et al. 2016). Though they spend more time looking at profiles of people of different races and ethnicities, they actually become more selective in those they choose to message and communicate with (Bapna et al. 2016). Data published by OkCupid demonstrates that its users have a strong preference to preserve and maintain a racial hierarchy that markedly benefits white individuals (Rudder 2014).

## THE PROJECTION OF SELF

The issue of identity becomes further complicated as internet use became decoupled from the sense of anonymity it originally provided. The rise of social media sites like Facebook established a precedent for the internet to serve as a venue through which individuals could manicure their “real-life” identities, rather than explore imagined ones (Strano 2008; Zhao, Grasmuck & Martin 2008; Gibbs, Ellison & Heino 2006).

Applications for online dating quickly followed suit, capitalizing on their position at the intersection of these anonymous and nonymous perspectives (Ranzini & Lutz 2016; Strano 2008; Zhao, Grasmuck & Martin 2008; Gibbs, Ellison & Heino 2006). In doing so, they built off of a tension resulting from the desire to portray an “authentic”

construction of one's actual self while simultaneously idealizing one's best features (Ranzini & Lutz 2016; Ellison et al. 2012). Some have argued that Tinder's popularity can be interpreted as evidence that its user base is satisfied with its ability to depict authenticity (Duguay 2016).

## Existing research on Tinder

One key source for information on Tinder and how its users operate stems from a 2016 study collating gross user data, conducted by researchers Gareth Tyson, Vasile Perta, Hamed Haddadi and Michael Seto. The study revealed a stark difference in how men and women used the application: while men matched with 0.6% of users, women matched with a staggering 10.5% (Tyson et al. 2016). This is more than an order of magnitude larger, which the authors interpreted as indicative of a strategic difference between the two genders. The authors further conclude that while men tend to swipe right indiscriminately on the vast majority of profiles they are presented with, women tend to be significantly more choosy, swiping right only on the occasional male. Specifically, they find that the majority of women (59%) estimate that they only swipe right on, at most, 10% of the profiles they are presented with (Tyson et al. 2016).

Additionally, the study revealed intriguing details regarding how the two genders differed in their operational strategies once a match had been made. While only 7% of men sent a message to the user they had matched with, 21% of women initiated contact (Tyson et al. 2016). The researchers concluded that this was a result of the

sheer numbers at play in the situation; women had “liked” fewer profiles and were thus more invested in those that they matched with, whereas men had “liked” so many profiles that there was a much smaller energy investment represented in each match (Tyson et al. 2016).

Although this study was unique in the amount of data it was able to sort through in order to generate useful conclusions, it was still very limited. The authors -- aware of the confounding influence introduced by racial homophily -- limited their study to White profiles, which is an extreme limitation considering that the location they were examining is London, a city that has a an ethnically and racially diverse population. This failure to explore the significance of race is echoed elsewhere in the literature (Sumter et al. 2017; David & Cambre 2016; Ranzini & Lutz 2016; Ligtenberg 2015; Kurzban & Weeden 2004). This incomplete representation extends to the way the company markets itself, prioritizing an image of fit white people in the actors it hires as well as the “real” success stories it promotes (Albury 2017; Duguay 2016).

## Theoretical Framework

This study seeks to use the experiences of marginalized peoples on the outskirts of the system to get a more encompassing view of the pattern of relations and experiences comprising said system. In this case, both at Penn and in the literature, it is the experiences of heterosexual white people that are most frequently given voice to and documented in the literature; this, however, is far from a complete picture of reality.

Michel Foucault (1980) has written extensively on the way that society categorizes as “deviant” those individuals that do not cleanly fit into its categories; similarly, Herbert Marcuse (1964) has discussed the importance of focusing on the experiences of marginalized populations to better understand the workings of a system.

Focusing on interactions that are mediated by a digital space necessitates a consideration of the impact that the internet and the media have on traditional human engagement. Arjun Appadurai (1990) was one of the early scholars to begin to provide a vocabulary for discussing the novel ways people would go about constructing different “scapes” or venues through which to engage with one another. Online dating operates through a similar overlap of multiple realities, culminating in the “imagined world” of the internet.

## Standpoint epistemology

Perhaps most famously articulated by Sandra Harding (1995), standpoint theory is built on a foundation rooted in “strong objectivity”, which essentially argues that only through the incorporation of the marginalized can a legitimately “real” and, thus, meaningful idea of “truth” be constructed. It is, therefore, integral that any research project strives to obtain a diverse, varied set of perspectives that empowers the experiences of all the members of a community -- however much they may represent a “minority” -- and attempts to do them justice insofar as it doing so is possible.

Herbert Marcuse (1964) described the way that people alienated from the system by virtue of their identity -- be it race, class, gender or something else -- often build stronger bonds with one another as a result of their mutual disenfranchisement. Their subjugation renders them essentially equal, in terms of the power they possess relative to the rest of society, so that they band together under a common cause. This perspective offers one hypothesis to explain relationship-building in a digital environment such as Tinder, suggesting that, as a result of being excluded by the dominant class in an internet space, minority groups would be more likely to engage with one another.

Foucault has written extensively on the interpretation and creation of what can broadly be deemed “deviance” (Foucault & Gordon 1980). Although his work predates the real development and spread of the internet (among other things), there are ample applications of his theory to our current environment. The internet is a new space, built by newly articulated units, but it perpetuates many of the existing networks of social influence and power as have pervaded the human experience since time immemorial, privileging the experiences and perspectives of white people, men and heterosexuals. Foucault (1971) also discusses mirrors, and how they can serve as “heterotopias” or “other spaces” that are often occupied by those society deems “deviant”. Heterotopias can reflect reality -- and thus allow us to approximate some kind of “truth” -- but they are not real, and neither is the image that they offer; it is just a projection (Foucault 1971). In this way, the internet can be thought of as a heterotopia: we are all offering projections of ourselves in the artificial space that it provides, but these projections are

false, and distorted through several layers, not the least of which is our own biased self-perception.

In theory, then, the Internet would exist as a space for deviancy, and certainly it offers more room for such non-conformity than virtually any other, more conventional setting. In actuality, however, it is more often appropriated by the masses and ultimately tends to replicate the same patterns of inequality and distribution of power that are present in the “real” world. This thesis will in part demonstrate this reification of inequality within the context of Tinder dating.

## Appadurai and scapes

Arjun Appadurai’s work on globalization and “scapes” has been pervasive in the field of anthropology as well as more broadly in the social sciences. Of particular significance is his seminal work, “Disjuncture and Difference in the Global Economy.” This work is of incredible value in succinctly setting the stage and forming the backdrop against which this research takes place: that of an increasingly globalized world rapidly changing shape in a dynamic, multidimensional way. This is of particular relevance in rendering an understanding of the way that the internet acts as a mediating force that both distorts and redirects the actions taking place within it. Appadurai conceives of scapes as building blocks that can be rearranged and reformulated so as to bear descriptive significance in explaining a variety of new concepts, even ones he had yet to imagine at the time of writing (1990). Tinder is just

such an environment, one that bridges the divide between “reality” and a digital landscape by its very function and thus demonstrates a particularly meaningful application of Appadurai’s conceptual framework. In other literature on the subject, the internet is described as a sort of alternate reality -- in Appadurai’s words, an “imagined world” -- that operates in ways inherently distinct and divergent from “normal” life. His work articulates these ideas in a centralized way, establishing a set of terminology (mainly his five “scapes”) that can be usefully employed to describe how this space is constructed out of (semi)-disparate units, moving in several directions across multiple dimensions and influenced along the way by various networks of actors.

Similarly, Blackwell et al. (2016) describe what they refer to as “co-situation technology” or the way that applications for online dating allow for the “layering” of otherwise distinct spaces, both virtual and physical. This functions as a more contemporary elaboration of Appadurai’s scapes by speaking more specifically to how individuals are actively involved in the process of constructing both their realities and their identities. Furthermore, they describe the difficulties around constructing context in online spaces. This work uses one-on-one, personal interactions with individuals moving within a broader system to try and shed light on the wider networks of interaction that are shaping their experiences. Through these conversations -- as well as the quantitative data the subjects provided -- it is possible to get a glimpse of broader trends at play while simultaneously qualifying them with interpretations to offer some context.

This study seeks to investigate the ways in which individuals make sense of the nearly overwhelming amount of information they are presented with in an application like Tinder, and the ways in which their experiences at the confluence of the digital and “real” worlds are informed by various forces. Particularly of interest are the often unrepresented experiences of marginalized groups. By invoking the theoretical frameworks described above, it is hoped that a more encompassing portrayal of modern dating can be achieved.

## Research

### Methodology

#### Population

The population being studied in this research includes students, of any age, currently enrolled at the University of Pennsylvania who are actively using Tinder. Participants in this study were recruited through word of mouth as well as postings on Facebook pages for Penn students. The sample consists of sixteen students, six of whom are male and ten of whom are female. The sample is diverse in both racial and financial background, although it is limited to students who identified as either single or non-monogamous at the time of survey.

## Methods

A mixed-methodological approach was employed, consisting of a survey presented within the confines of a semi-structured interview. The research was conducted under conditions approved by an Institutional Review Board and with the full, informed consent of the participants in this study. No identifying information was collected. Participants were referred to by number in fieldnotes in order to maintain their anonymity.

The survey was designed to gather basic demographic information including gender, sexual preference, race/ethnicity, as well as gauge the participants' experiences with Tinder. The survey includes information such as how often they match with other users, how frequently they message those they match with (and are messaged in return), and how often they respond when others initiate contact or conversation. In the case of race and ethnicity, the options used by the U.S. Census Bureau, revised as of January 2017, were provided and the subjects were allowed to check all with which they identify. These options are Black, White, Asian, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander. Hispanic/Latinx is also included. Additionally, subjects were asked whether these categories were sufficient to describe their identities and, if not, what other categories they would have preferred.

Subjects were then interviewed about the details of their experiences with the application. The participants were prompted to go through their ten most recent

matches and explain the rationale they employed when originally considering each profile. At the end of the interview, they were asked to explain whether and to what extent the race/ethnic identity, gender and socioeconomic status they selected in the survey influenced their experiences with the app. This could be in reference to how they perceived others or how they believed others perceived them.

The format of the interview was semi-structured in that a loose script was followed to guide the discussion, but allowed for freedom on the part of the interviewee to place the emphasis on whatever aspects of their use of the application that were meaningful to them. Additionally, participants were encouraged to elaborate on the answers provided in the survey; for instance, inquiring whether the census options for race/ethnicity fully capture the way that they identify themselves, or whether “socioeconomic position” adequately describes how they identify their class position. Most of the interview was spent trying to document and examine the selection process that they employ and to understand the subject’s rationale in sorting through the nearly overwhelming amount of information that they are presented with as users of the application, particularly within the urban environment of Philadelphia.

## Analysis

Since the survey is standardized, and uniformly presented to all participants at the beginning of the interview process, it is relatively easy to compare all the answers received. There is little room for variation on even the more open-ended questions in the survey, simplifying the analysis and allowing discrepancies to stand out (e.g.

numerical differences in frequency of contact or use). A descriptive analysis was undertaken in order to identify broader trends that highlight common experiences associated with Tinder use. The fieldnotes were coded thematically and assessed for similarities and emergent concerns.

## Results

There were 16 participants in this study, ten women and six men. All were between the ages of 19 and 24, with the most (43.8%) being 21. Two of the men identified as being homosexual, with the other fourteen subjects identifying as heterosexual. They were somewhat varied in socioeconomic status: 62.5% identified as upper-middle income, 18.8% as middle, 6.3% as low-middle and 12.5% as lower. Racially, 7 (43.75%) identified exclusively as White, 2 (12.5%) as Black, 3 (18.8%) as Asian and 4 (25%) as Hispanic/Latinx; 4 (25%) identified as two or more races.

All users reported being long-term Tinder users; the longest user had initially downloaded the app five years ago, while the most recent user had been using it for six months. Most users reported using the app for a few years, although all qualified this by explaining that their use was “sporadic”, “in spurts” or “on and off”. In general, the subjects reported being “picky” when swiping: few swiped right on more than 30% of the profiles they were presented with. Male subjects reported swiping right more frequently than female subjects and matching less: on average, males swiped right on

29.6% of profiles (compared to 15.3% among females) and matched with 25.3% (compared to 54% among females).

Subjects were prompted to report how many of their last 10 matches had messaged them first and how many they had messaged first. Among those female subjects who had messaged someone first, response rates were relatively high: the average was 66.6%; however, only three of the ten female subjects had messaged someone first, making the average across all ten 20%. Among male subjects, all had messaged first at least once and the average response rate was 53.23%. When responding to users who had messaged them first, rates were fairly high among male and female subjects: on average, men responded 58.3% of the time and women responded 55.6% of the time.

Analysing the ten most recent matches of each subject demonstrated a tendency for an in-group preference in the profiles surveyed: among the seven individuals who identified as White, all primarily matched with other White individuals (85.7% on average). Although subjects who identified as minorities still matched with Whites at high rates, in the interviews many individuals reported a preference for members of their same ethnic or racial group. One subject informed me that she thought it was important that I considered her matches within the broader context of Tinder: she was presented with mostly White profiles in the first place. Several general themes emerged in many of the interviews: namely, the tendency to use the app to relieve boredom; having recurring periods of heavy use and withdrawal; a sense that the app played into

an individual's self-esteem and sometimes instilled a sense of shame; the feeling that using the app represented the construction of an alternate reality and the projection of a partially distorted identity; and the issue of fetishization, particularly among individuals who identified as women of color. Each of these themes will be explored in turn in the following discussion section.

## Discussion

All of the subjects had used the app for at least six months, and many for a few years; this suggests that Tinder's popularity was not a short-lived phenomenon as some scholars had initially postulated (Ligtenberg 2015). Additionally, it also indicates that users have not been successful in finding the meaningful, long-term relationships they are in search of. Subject 15, for example, explained that he felt pressured to act quickly in order to "lock down" the few "quality girls" present on the app before they were snapped up by someone else.

Men reported messaging first the majority of the time, a finding consistent with the literature (Sumter et al. 2017; Tyson et al. 2016; Ligtenberg 2015). Several female subjects reported an outright refusal to message a man first. Interestingly, men were only slightly more likely to respond when messaged first than females (58.3% vs 55.6%, respectively) in spite of the fact that this was a comparatively rare phenomenon. In fact, all subjects had similar response rates when messaged first. This is in contrast with Tyson et al. (2016) who found that women were more engaged with

their matches and more likely to respond to messages. However, as most of the subjects in this study explained that their interest in responding to messages stemmed from their mood or level of engagement with the app, it falls in line with findings by other researchers (Albury 2017; Sumter et al. 2017; Ligtenberg 2015; Roeffen 2014) that see boredom and entertainment as driving factors in explaining user behavior.

## Analysis of emergent themes

### Race

Penn describes itself as a diverse university (University of Pennsylvania 2018). Among undergraduates, 49.94% are White, 8.3% are African American/Black, 23.05% are Asian American/Pacific Islander, 11.69% are Hispanic/Latinx, 0.099% are Native American or Alaska Native, 4.77% are two or more races and 2.13% are unknown (University of Pennsylvania 2018). Among graduate students, the numbers are comparable although somewhat less diverse: 60.78% are White, 6.79% are African American/Black, 16.8% are Asian American/Pacific Islander, 8.04% are Hispanic/Latinx, 0.092% are Native American or Alaska Native, 3.23% are two or more races and 4.27% are unknown (University of Pennsylvania 2018). In the United States as a whole, 61.3% are White, 13.3% are African American/Black, 5.9% are Asian American/Pacific Islander, 17.8% are Hispanic/Latinx, 1.3% are Native American/Alaska Native, and 2.6% are two or more races (U.S. Census Bureau 2016).

The subjects in this study were slightly more diverse in race/ethnicity than Penn's general population; all groups were overrepresented with the exception of Whites and Asian Americans/Pacific Islanders when compared to undergraduates and all groups are overrepresented, except Whites, when compared to graduate students. Compared to the population of the United States, Whites and African Americans/Blacks are slightly underrepresented, Hispanics/Latinx are slightly overrepresented and Asian Americans/Pacific Islanders and individuals of two or more races are significantly overrepresented.

When prompted to discuss their experiences as mediated by racial, SES and gender identities, those individuals who associated themselves with the majority group tended to minimize any potential influence, both in the way that they viewed the profiles the app presented them with as well as in the way that they felt their own profile was viewed by other users. The most salient instance of this came with Subject 12, who identified as a white heterosexual upper-middle class man: he stated that these aspects of his background exerted "no influence whatsoever" on either his perception of others or their perception of him. This reflects the hypotheses derived from the work of Marcuse (1964) and Foucault (1971; 1980) described above.

In contrast, all subjects that identified as people of color reported being highly conscious of the way that their race/ethnicity was depicted and shaped their experiences on the app. Several subjects reported being aware that it noticeably reduced their match rate, particularly when compared to their white peers. This was

more frequently described by the female subjects, who reported a tendency to “group swipe”, using Tinder collectively with friends. Subject 9, for example, explained that when swiping on behalf of white friends who she considered to be of comparable attractiveness, she noticed a significantly higher match frequency than she was accustomed to on her own account. This finding echoes what has been found elsewhere in the literature; namely, that the match rate among people of color is skewed so as to reflect the racial hierarchy present in real and digital life (Rudder 2014).

Although not regarded as a race or an ethnicity officially recognized in most demographic categorizations, the Jewish population is concentrated in the Northeast and heavily represented at Penn: roughly 26% of students are Jewish, compared to about 2% of the overall American population (Stern 2016). Among the subjects included in this study, four out of sixteen (25%) identified as Jewish, which is in line with their representation in the wider student body. Interestingly, these subjects, although they all identified as white, reported, explicitly, being aware of a strong in-group preference in the Jewish community at large. Three reported being either current or former users of “J-Swipe”, a dating app specifically for Jewish people. They referred to the shorthand “NJB” or “Nice Jewish Boy” as a way a man could signal his identity in his bio; similarly, they all discussed the advantages being Jewish offered, even on an app like Tinder that was not designed to cater to one specific crowd, in contrast with J-Swipe, for example, or apps like OkCupid that allow users to filter by religious affiliation.

For example, two of the men that I interviewed identified as Jewish (Subjects 13 and 16). Both felt very in touch with this identity, though not as a religious signifier. Yet, they reported very different experiences with it once modulated by Tinder as a medium. Subject 13 became animated when prompted to elaborate on his experiences, explaining that “it’s such a bonus” as Jewish girls are “almost always” looking for Jewish guys. He noticed a significant increase in his match rate once he updated his profile to include a photo that clearly displayed him in Israel. In contrast, Subject 15 was conscious of the fact that he did not bear the “typical” phenotypic traits associated with Jewish identity, and thus explained that he did not feel as though he was able to reap the benefits of being Jewish described by Subject 13. These experiences shed light on the importance of signalling identity in order to connect with other members of a minority community, particularly through layering pieces of information in different forms of media (Blackwell et al. 2016; Appadurai 1990).

### Boredom as a key motivation

When asked about their motivations for using the app, all 16 subjects reported using the app to alleviate boredom or when there was a lull in activity. This motivation is consistent with what has been identified in previous literature (Sumter et al. 2017; Ligtenberg 2015). Subjects reported using the app largely out of boredom, to kill time, or as a form of entertainment. One woman went so far as to say that she used it to fall asleep at night, literally swiping until she lost consciousness.

There was a gender difference when it comes to using the app: several of the female subjects reported using it as a sort of party game, passing their phones around while hanging out with friends and sometimes crowdsourcing a response to a particular profile. A second interview was scheduled with one participant (Subject 3) because during the initial interview she admitted that it had been a friend swiping for her most recently and her match history did not reflect her own experiences or choices. In contrast, the male subjects appeared to take using the app much more seriously. According to Subject 15, the very notion of women “tindering” together was offensive and altogether unheard of among men; instead, men made use of the app when “lonely lying in bed at night”.

Although users report joining Tinder initially out of a genuine desire to meet people and form meaningful relationships, many report quickly becoming frustrated with the process. This is further complicated by the gamified structure of the app, which many subjects described as addictive. Treating the app like a game facilitates the development of a positive feedback loop whereby individuals use the app out of boredom, invest little effort or energy in each match, become disillusioned with the process and see no reason to change their approach, thus reigniting the cycle (Carpenter & McEwan 2016; Roeffen 2014).

### Cyclical pattern of use

None of the subjects reported used the app consistently. All described a cyclical pattern of use, usually punctuated by long periods of inactivity during which they

deleted their account but did not deactivate it. Sometimes this behavior was prompted by a long-term, exclusive relationship, but usually it was the result of feeling that the app was serving as a distraction and interfering too much in day-to-day life or a reported sense of fatigue, disappointment and dejection over continued lack of success in Tinder endeavors. This might be understood as a mismatch between expected gratification and actual results, similar to what was described by Ligtenberg (2015) and Sumter et al. 2017.

### Self-esteem/shame

All of the respondents described the app as having some impact on their self-esteem. Universally, it was agreed that getting a match served as an ego boost. This represents a deliberate choice on the part of the company; matching with someone causes the screen to dim and fill with hearts, and the app literally says “Congratulations!”. However, this seemingly innocuous ego boost gave way, in many cases, to a deeper, more permeating sense of doubt and shame around using the app in the first place. Subject 4, for example, was adamant that she only used the app to meet new people, platonically. She reported that she had no interest in seeking out any sort of romantic relationship. It was only towards the end of our time together that she stated that she was too ashamed to admit that she was interested in finding a boyfriend. She felt that she had already constructed a real world image of herself as someone happy, carefree, and deliberately single. She downloaded Tinder initially to try and find a boyfriend and was dismayed to find that doing so proved just as difficult online as it did in her daily life. She admitted that she sought to mask her attempts under a veneer, claiming it was

“a joke”, something she did “just for fun”, but in actuality revealed a deeper sense of fear around jeopardizing the reputation she had crafted for herself among her peers.

Subject 13 described it as “validating” when you match with someone, but somewhat insulting when you do not. She explained that using the app can actually aid in helping you to establish a better understanding of yourself insofar as it facilitates a greater sense of your own “ranking” vis a vis other users. It is possible to do so, in her eyes, judging by your match rate amongst other users as well as an “objective” rendering of the attractiveness of those you match with. This almost empowering description of the way that the app can serve to meet the user’s needs was countered by her subsequent description of what she referred to throughout our discussion as the “sad swipe”: a phenomenon that usually occurred at night, right before bed, when she was already feeling bad about herself. She swipes through, in her own words “very superficially”, numbly speeding by: “I still go through the motions, of looking at the photos, the bio. But I don’t pay attention to it as much.” She described it as thoughtless and thus “therapeutic” as she could rely on “muscle memory” rather than a conscious consideration. This invocation of the power of the swipe resonates with the findings by David & Cambre: the simple act of swiping has the unexpected effect of facilitating depersonalization on the part of the user, as well as the objectification of the individuals whose profiles are being considered.

For others, such as Subject 16, Tinder represents a venue through which one can better understand oneself. This, too, was predicted previously in the literature (Sumter

et al. 2017). In the case of one particular interlocutor, he described his desire to use the app as stemming from an interest in gaining perspective on himself in addition to the desire for romance. He explained that, while swiping, he was continuously contemplating his own intrinsic motivations, asking himself why he was or was not swiping on certain “kinds” of girls. He also displayed a well-articulated sense of his own position relative to other men, or, at the very least, his imagined position relative to the “ideal man” he constructed in his own mind as being preferred by female users. This self-evaluation fed into his own doubts, not only about his own identity and self-rated sense of attractiveness, but even more so into his own understanding of his masculinity. He explained that he was engaged in an ongoing process of coming to terms with his identity and could not elaborate on it beyond saying that the app prompted a deeper sense of self-reflection. Thus, he revealed the extent to which Tinder stokes the flame as its users engage in an endless cycle of building up and tearing down their own identities. This occurs literally, as they manufacture the identity that they project on their profiles, but also more figuratively, as they interpret their experiences on the app and refine their sense of self.

Many of these conversations revealed a sense of conflict around the stigma associated with Tinder use. Several of the subjects admitted that, although Tinder usage has been normalized within the Penn community, they were uncomfortable admitting that they used it to their families or friends from home. This echoes findings in the literature discussed earlier: namely the degree to which online dating still carries a negative association and the extent to which it can be considered characteristic of modern

dating (March et al. 2017; Timmermans & De Caluwé 2017; Ranzini & Lutz 2016). Furthermore, the sense that the gamification of the app played off of people's insecurities and helped to facilitate the objectification of other users has also been described by researchers (Albury 2017; Sumter et al. 2017; Duguay 2016; David & Cambre 2016; Carpenter & McEwan 2016; Blackwell & Birnholtz 2014; Roeffen 2014).

### Construction of reality

Another popular theme was the mismatch between “reality” and the internet, and social media, in particular, as an environment which necessarily either distorts or creates something different. This difference may or may not ultimately bear any resemblance to what we otherwise consider to be “true”. Although most participants spoke to this mismatch in some manner, the way in which they articulated their experiences and understanding of this phenomenon varied substantially. For some, the apparent departure from reality was troubling and related to a broader, more terrifying societal potential for anomie and despair. For others, the disconnect represented a trait that was simply characteristic of digital social media and life in a technological age: the need to carefully and cognizantly consider the consequences of one's actions and how they could be interpreted to have a greater significance than what was necessarily immediately apparent. This resonated as something being experienced within a certain set of circumstances at Penn, especially, considering how many of the informants were seniors. In the last four years, the community as a whole has been plagued by a rash of suicides that have forced the issue of a curated, carefully articulated social image to the forefront of a broader discussion regarding the implications of our actions. In light

of this context, it is understandable that so many individuals were conscious of the facade or veneer of truth that can be falsified through the construction of an identity one can ponder and build from a distance.

Like so many other aspects of their experiences on this app, many of the informants discussed a pervasive sense of conflict around how they made sense of this dilemma; it was rarely a clearcut issue, but rather often spoke to a deeper uncertainty regarding how, precisely, they felt about their use of Tinder in the first place as well as the way they represented themselves online or on social media in general. For example, Subject 3 mentioned, several times, a sense of anxiety over whether or not her artificial representation of herself was genuine and reflected her “real” self, especially the way others saw her. She was extremely conscious of the possible ways that other people interpreted her profile. Of course, the construction of the profile itself is not a hard and fast decision -- it can be edited at any time and most people reported making edits periodically, if not very frequently. Oftentimes it reflects some kind of external change - a vacation during which many pictures were taken, an internal shift in how one feels about oneself or some kind of life change in general. Interestingly, there is a seasonality apparent to this trend: there is a tendency for Tinder use to dip substantially around midterms and finals, for profiles to be updated following spring or summer break, and for major bio rewrites (and periods of use to reemerge) alongside the start of a new term or year.

Subject 1 was perhaps the most concerned with what he saw as the central contradiction between Tinder, as a means of displaying yourself so as to facilitate social interactions as well as so as to manufacture an affected persona and assume some kind of actively curated identity. For him, the casual attitude associated with using the app had Marxist implications. He described it as a specifically American, capitalist phenomenon to essentially treat other human beings as disposable objects that could literally be dismissed with the swipe of a finger based on an artificial construction that may or may not bear any resemblance to reality. This discussion revealed a deeply held sense of anxiety over the modern sense of societal anomie that has been intensified with the proliferation and popularization of social media. He expressed a fear that the dependence on technological interactions has been privileged over more “legitimate” forms of human intimacy. Subject 1’s fears were supported by the literature, echoing the argument that Tinder usage was intimately bound up in the broader trend of disintegrating social bonds associated with modern society (Albury 2017; David & Cambre 2016).

Subject 16 had the clearest sense of dichotomy between what he described as his two “personas”: the “real” self of his day-to-day life and his “sexy” self, which he felt could only be explored via Tinder. The slightest indication that these two identities could intersect was enough to send him reeling. He described several cases of matching with different women who in some way mentioned a vague connection to his “real world” identity” such as having a mutual acquaintance or passing one another on campus, only to instantly unmatch and avoid ever interacting with them again. Of particular

interest in this case was the painstaking care taken to maintain a depiction of himself that he felt was “genuine” and accurate to who he was off-screen in spite of the dedicated maintenance of otherwise disparate identities. When prompted to consider whether the behavior or style of communication between these personas differed, he took a moment to consider it before responding. To his own surprise, there was no difference at all. In fact, outside of the demarcation that he himself was enforcing, the two behaved in identical manners. What was important to him was not whether he truly explored another side of himself, but rather simply that he had the opportunity to do so. In effect, he was creating a new space for thought and action within this digital space, one purely concerned with the freedom to make a choice to try being different, even though he did not have any desire to actually do so. Returning to Foucault’s discussion of heterotopias as spaces for deviancy, it would appear that Subject 16 saw Tinder as just such a venue: a space where he could potentially explore an alternate identity that existed outside the confines of what he had established as normative behavior.

## Fetishization

The male graduate student

The vast majority of the women and two of the men interviewed reported a preference for older men. Specifically, all these participants spoke of the male graduate student (at Penn) as a sort of Platonic ideal of Tinder matches. This trend was noteworthy for its ubiquitousness. Interestingly, when participants were asked whether this fantasy had

ever been actualized, with the exception of one participant, none of my interlocutors had ever “met up” with any of the men that they were idealizing. Likewise, Subject 15, a male graduate student at Penn, described having a similarly idealized perception of Penn undergraduates when he first began to use the app. He explained that he had initially swiped with a strong preference in their favor because “I just really romanticized them, thinking they were all incredibly brilliant.”

## Race

Racial fetishization was a common concern among informants who identified as ethnic or racial minorities, and especially among female participants. In general, there was a tendency to treat potential or actual matches that presented as white men with some degree of caution, largely due to past experiences in which problematic encounters had taken place, both in “real” life as well as on the app. For some women, such as Subject 4, who identified as Asian, the best approach was to explicitly avoid white men altogether, with limited exceptions, and to swipe almost exclusively on Asian men. Subject 7 identified strongly as being mixed-race and explained a similar tendency to eschew white men when the app presented her with them. She disclosed a prior history with men fetishizing both her identity as well as specific aspects of her body and felt that it was “safer” to steer clear of them entirely. Interestingly, she did not limit this avoidance just to white men: she described facing hostility from East Asian men, as well, regarding her skin color. In her eyes, the issue of colorism was not just problematic in white-dominated spaces, but was also pervasive in other communities. Similar to other studies on subaltern populations, this amplified the importance of

standpoint epistemology in attempting to understand the sometimes complicated dynamics at play in contemporary race relations.

These two cases were the most extreme. Not all of the female informants felt that it was necessary to entirely exclude all or most white men, but they did report an awareness of the reality that they faced as visible minorities. This concern was also a sentiment far more common among women than among men. For example, the three women interviewed who identified as Asian described being conscious of “yellow fever” when using the app, although not all of them were as active in taking steps to limit its ability to arise. Subject 6 described this approach as “a really sad way to live” although she admitted that she had several friends who operated in a similar manner. Subject 13, also Asian, explained that she faced cultural pressures to prefer Asian men and that these pressures had pushed her in the opposite direction, so that she preferentially swiped on white men. However, she also mentioned several times that she unmatched immediately at any sign of fetishization and was “always on guard” against it.

These frequently cited experiences with fetishization can be seen as an example of “identity tourism” at play, as colored bodies are exploited and commodified via their Tinder profiles (Daniels 2012). Similarly, they demonstrate the social media eroticism that scholars have demonstrated as pervasive in digital spaces, particularly those that rely heavily on images (Mason 2016). The experiences discussed here provide a powerful reinforcement of the previously described racial hierarchies and racialized

desire that are just as pervasive and systemic in digital environments as in physical ones.

## Limitations of this study

While this study has echoed findings demonstrated elsewhere in the literature and served to highlight the experiences of populations usually marginalized in academic discussions, it has several limitations that must be addressed. These largely stem from the population being studied and the difficulties associated with recruitment.

### Population being surveyed

The population being surveyed in this study was limited exclusively to students at the University of Pennsylvania who self-identified as current, active users of Tinder. Additionally, the vast majority were undergraduates; only one graduate student participated. Although the population was racially diverse and reported self-identification with a variety of socioeconomic statuses, my results still only speak to the experiences of a relatively privileged subset of the broader population that Tinder purports to cater to. This was further complicated by the issue of self-identification: especially as it applies to socioeconomic status, I suspect that the reported position was deflated; how much so is unclear. Several of my interlocutors reported being uncertain where they fell, stating that while they did not know the numerical cut-offs or their household's income bracket, they knew the standard of life that they were accustomed to and could extrapolate from that.

## Numbers

Initially, I predicted that I would recruit 20 subjects to be interviewed, although I hoped to be able to reach more. Unfortunately, this did not come to pass; although I was able to reach a sufficient number of female subjects very quickly, I had difficulty finding and recruiting male participants. As with any research project, a larger sample is always desirable and can only assist in facilitating better conclusions. Future research on the subject could involve a larger, more diverse sample in order to more rigorously test my claims.

## Suggestions for further research

This study was hampered by the inclusion of only 16 individuals; to draw more meaningful conclusions, it would be useful to expand the pool of subjects substantially. It would be both helpful and informative to have access to more information from the “inside”, so to speak, against which to compare these results. OkCupid is well-known for making the immense amount of data it has collected available to the public; in contrast, Tinder shares little of its aggregate user activity. Were more of this information to be made available to researchers, a tremendous amount of additional work could be undertaken.

## Comparative study (across apps)

Many of my informants reported engaging with a variety of mobile applications for online dating; it was relatively uncommon to rely exclusively on Tinder. Among those

that employed multiple apps, they described different behavior being typical on different platforms, or using different apps for different purposes or needs. One of the men interviewed, who identified himself as homosexual, explained that, in the gay community, Tinder was understood to be a venue for men in search of more serious, long-term relationships; if you were interested in something more casual, Grindr was vastly preferable. It would be interesting to embark upon a broader survey that incorporated experiences across a range of different applications in order to more deeply investigate these claims, namely that different apps draw users in for different reasons and encourage them to develop different personas and operate according to different sets of norms.

## Conclusion

This project has sought to engage with the modern dating landscape as a venue through which to attempt to make sense of the experiences, particularly among marginalized groups, associated with using Tinder. The results obtained here have largely supported what was documented elsewhere in the literature: namely, that users of Tinder are generally representative of the broader population and begin using the app out of a desire to form meaningful relationships. However, this proves difficult and is often complicated by the fact that many users primarily resort to “Tindering” when bored or as a source of entertainment. Furthermore, the design of the app fosters a sense of objectification of other users, playing into their sense of self through a

constant manufacturing of identity. This is particularly resonant among racial and ethnic minorities whose experiences in digital spaces are already complicated by the replication of systemic societal inequalities and forms of exclusion. By engaging primarily with individuals from communities that are marginalized or afforded limited representation in the broader body of literature, this study was able to probe the undercurrents of inequality enmeshed in and encircling Tinder.

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