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# An Integrative Framework of Intersectional Stereotyping: Merging the Lens Model and MOSAIC to Explain Variations in Black-Threat Stereotyping

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**Academic Abstract**

Black-threat stereotyping, or the tendency to disproportionately associate Black individuals with threat-related concepts, is an artifact of American psychology. Nonetheless, most of what psychologists know about this topic concerns how Black-threat stereotypes are applied to young, straight Black men. In the present analysis, we review existing research on intersectional Black-threat stereotyping: broadly, how Black-threat stereotyping depends on the multiple, intersecting social categories to which targets belong. Although the existing literature is at times contradictory, we argue that it can be well-explained by an *Integrative Framework of Intersectional Stereotyping* that merges the core assumptions of two recent theories of intersectional stereotyping: the lens model and MOSAIC. The central contribution of the proposed framework is that intersectional stereotypes may at times be retrieved from memory and at other times be dynamically generated. We conclude with a roadmap for future research in this consequential domain.

**Public Abstract**

In the United States, Black Americans are killed by police at over twice the rate of White Americans. There are many reasons for this racial disparity, not the least of which is that Black Americans are often stereotyped as threatening. In the present paper, we review what scientists currently know about these inaccurate perceptions, and we discuss the question of whether these perceptions depend on the multiple social groups to which Black Americans belong (for example, Black Americans' age, gender, and sexual orientation groups). We argue that although research on this topic is messy, it can be "cleaned up" with the help of what we call an *Integrative Framework of Intersectional Stereotyping*. This framework merges insights from two recent theories of intersectional stereotyping: the lens model and MOSAIC.

**Keywords**

intersectionality, stereotyping, threat, racial bias, person perception

In the United States, pervasive stereotypes link Black Americans with the concept of threat. For example, Black Americans are commonly stereotyped as "criminal," as "dangerous," and as "violent" (Devine, 1989; Ghavami & Peplau, 2013). These portrayals of Black Americans have been perpetuated through media outlets for over a century, reinforcing White supremacy and criminalizing Black communities (Smiley & Fakunle, 2016). Modern-day media outlets continue to portray Black Americans as threatening, in part because doing so legitimizes Black Americans' marginalization, including the unjustified use of force by police (e.g., Sanburn, 2014).

Social psychologists have long sought to catalog the myriad manifestations of *Black-threat stereotyping*, or the tendency to disproportionately associate Black individuals with threat-related concepts (e.g., aggression, hostility, danger). For instance, empirical research reveals that, compared to when encountering White targets, perceivers more frequently shoot at unarmed Black targets in computer-simulated shooting tasks (Correll et al., 2002), see threat in

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ambiguous behaviors and emotional expressions of Black targets (Duncan, 1976; Hugenberg & Bodenhausen, 2003), inflate the physical formidability of Black bodies (Wilson, Hugenberg, & Rule, 2017a), and recommend harsher criminal sentences to Black perpetrators of street crimes (Gordon et al., 1988). A common thread across these bodies of research, however, is that they often focus on the threat stereotypes that perceivers apply to a particular subgroup of Black individuals: namely, young, straight Black men.

A consequence of focusing primarily on stereotypes that are directed toward this subgroup is that social scientists may understand only a part of a much more complicated prejudice. Indeed, although most of the research on anti-Black bias captures the stereotypes that are applied to young, straight Black men—whom perceivers tend to regard as prototypic of the group *Black people* (Ghavami & Peplau, 2013; Purdie-Vaughns & Eibach, 2008)—psychologists have increasingly recognized the intersectional and dynamic nature of social bias. Specifically, psychologists have started to recognize that the meaning of race cannot always be understood in isolation from targets' multiple category memberships (Kang & Bodenhausen, 2015; Remedios & Vinluan, 2024; Remedios & Sanchez, 2018). That is, how the concept of Blackness relates to the concept of threat may be shaped by the multiple social categories to which targets belong—for example, by targets' gender, age, and sexual orientation categories.

The idea that perceivers' Black-threat associations might depend on the multiple social categories to which targets belong has its roots in intersectional theorizing. The concept of intersectionality was born out of Black-feminist scholarship as a tool for describing systems of interlocking oppression, on the one hand, and for characterizing the experiences of those who are multiply marginalized, on the other hand (Crenshaw, 1989; hooks, 1984; King, 1988). Although the concept of intersectionality was formulated to be quite broad in its emphasis, psychological scientists have tended to define intersectionality more narrowly, most often as an epistemological approach in which one considers how basic psychological phenomena—such as the application of Black-threat stereotypes—may manifest differently for people who possess different combinations of social identities (Cole, 2009; Ghavami et al., 2016; Rosette et al., 2025).

## An Overview of the Present Analysis

In the present analysis, we review the growing literature on Black-threat stereotyping, with a particular emphasis on when Black-threat stereotyping is—or in some instances, is not—moderated by a target's other intersecting demographic categories. After reviewing this research literature, we describe how two contemporary models of intersectional stereotyping can be integrated into a single theoretical account that can explain varied findings related to Black-threat stereotyping. In particular, we discuss Petsko et al.'s (2022) **lens model** and Hall et al.'s (2019) **MOSAIC** framework, and we suggest that these accounts can be merged together into what we refer to as an *Integrative Framework of Intersectional Stereotyping*. While the construction of this integrative framework was sparked by a need to better understand the varied findings on Black-threat stereotyping, the proposed framework can likewise be used to understand intersectional stereotyping broadly. Finally, we outline future directions for the literature on intersectional Black-threat stereotyping, with a focus on the theoretical questions that emerge from integrating the lens and MOSAIC models. In summary, the present analysis has three aims: (a) to review the literature on intersectional Black-threat stereotyping, (b) to provide an integrative framework that can explain the varied findings in this literature, and (c) to provide a roadmap for making progress in this consequential domain of scientific study.

## Positionality Statement

Before delving further into the present analysis, it is important to note that the authors' social identity groups undoubtedly influence the arguments presented in this work (Jamieson et al., 2023). The first author identifies as a White, straight, cisgender woman. The second author identifies as a Black, straight, cisgender woman. The third author identifies as a White, gay, cisgender man. All three authors reside in the United States, and all three occupy positions of socioeconomic privilege (particularly with regard to educational attainment). The authorship team is passionate about creating inclusive, holistic models of person perception that go beyond "single-axis" models of prejudice. Nevertheless, the authors' experiences may impose limits on their understanding of Black-threat stereotyping, the types of questions they ask, and the forms of racial bias that are explored. Moreover, only one author identifies with the group of Americans centered in the current work, namely Black Americans. Nonetheless, the authorship team spans different career stages, academic institutions, and social identities, which hopefully stands to enhance certain elements of the present analysis.

## A Review: Intersectional Black-Threat Stereotyping

Over the last decade, research findings have taken an increasingly intersectional look at the topic of Black-threat stereotyping, and results have appeared to be somewhat convoluted. For example, sometimes Black-threat stereotyping unfolds intersectionally—that is, in light of the multiple social categories to which targets belong (e.g., in light of their race *and* their gender, or in light of their race *and* their age). At other times, however, Black-threat stereotyping does not appear to unfold intersectionally. That is, there are some moments in which Black-threat stereotypes appear to be applied in equal measure to Black individuals of

different gender groups, age groups, and sexual orientations. Below, we briefly review findings that have taken an intersectional look at the topic of Black-threat stereotyping. The larger purpose of this section is to highlight ostensibly contradictory findings in this literature—findings that, as we argue later, can be well-explained by the tandem assumptions of the lens model and MOSAIC.[1]

### *Black-Threat Stereotyping of Men versus Women*

Black-threat stereotyping sometimes depends on targets' intersecting gender categories—in particular, on whether targets are men versus women. For example, one consequence of Black-threat stereotyping is that perceivers exhibit a race-based size bias, or a tendency to overestimate the physical size and formidability of Black people relative to White people (Freiburger, Sim, et al., 2023; Wilson, Hugenberg, & Rule, 2017a). It turns out that this particular bias is moderated by whether the targets in question are men or women. While a race-based size bias indeed emerges when the targets in question are men, this bias does not appear to emerge, at least according to one analysis, when the targets in question are women (Johnson & Wilson, 2019). As another example, shooter simulation experiments reveal that perceivers mistakenly shoot at unarmed Black individuals more often than at unarmed White individuals (Correll et al., 2002). However, this particular bias also appears to depend on whether the targets in question are men or women. While this stereotypic bias unfolds when the targets are men (Correll et al., 2002), it does not appear to unfold when the targets in question are women (Plant et al., 2011). Thus, there are instances where perceivers clearly stereotype Black individuals based on their intersectional categories, leading to varied outcomes when taking both race and gender into account.

However, there are also times when Black-threat stereotyping does not appear to depend on targets' intersecting gender groups. For example, Black-threat associations are commonly measured using a task called the Weapons Identification Task (Payne, 2001). A racial bias that emerges on this task is that participants are more likely to erroneously categorize harmless objects as weapons when objects have been preceded by Black faces relative to White faces. In an intersectional analysis of this phenomenon, Thiem et al. (2019) manipulated not just the racial groups of the faces used in this task, but likewise whether the faces were of men versus women. A finding that emerged repeatedly in this analysis was that although participants indeed exhibited the previously described racial bias, they did so to similar degrees regardless of whether the targets were men or women (Thiem et al., 2019, Exp. 1, Exp. 3). In other words, this analysis revealed that in some situations, participants' racial stereotypes *do not* appear to unfold intersectionally—in this example, in light of targets' gender groups.[2]

### *Black-Threat Stereotyping of Older versus Younger People*

There is also evidence that Black-threat stereotyping unfolds intersectionally in light of targets' age groups. For example, threat stereotyping of Black individuals can, according to some experiments, become attenuated when the targets are children versus adults (Petsko et al., 2022; Thiem et al., 2019) or when the targets are elderly versus young adults (Bergstrom et al., 2024). As one example, Kang and Chasteen (2009) found that Black-threat stereotyping effects can *reverse* for elderly Black men. Specifically, these authors observed that although young-adult Black men were stereotyped as angrier than young-adult White men, elderly White men were stereotyped as angrier than elderly Black men. In short, existing evidence suggests that sometimes, Black-threat stereotyping does indeed unfold intersectionally in light of targets' age groups: learning that a Black individual is a child or an older adult may attenuate the force with which perceivers apply Black-threat stereotyping to that individual.

Yet just as there is evidence that Black-threat stereotyping unfolds intersectionally in light of targets' age groups, so too is there evidence that sometimes, it does not. For example, as mentioned previously, priming tasks reveal that participants are more likely to erroneously categorize harmless objects as weapons when the objects have been preceded by Black individuals' faces relative to White individuals' faces. According to Todd and colleagues' analyses (Todd, Thiem, & Neel, 2016; see also Todd, Simpson, Thiem, & Neel, 2016), the magnitude by which this racial bias occurs is not moderated by whether the faces are of fully grown adults versus 5-year-old children.[3] Moreover, according to Lundberg et al.'s (2018) analyses, the magnitude by which this racial bias occurs is likewise unmoderated by whether the faces are of older (vs. young-adult) men. Thus, in some contexts, targets' age groups do not appear to influence the magnitude by which they are subject to Black-threat stereotyping.

### *Black-Threat Stereotyping of Gay versus Straight People*

In this final sub-section of our review on intersectional Black-threat stereotyping, we focus on sexual orientation. Does Black-threat stereotyping depend on targets' sexual orientation groups? On the one hand, researchers have found that a gay versus straight sexual orientation can indeed moderate the extent to which perceivers ascribe threat-related stereotypes to Black men (Pedulla, 2014). For instance, Wilson, Remedios, and Rule (2017b) found that gay Black men were judged to have more leadership potential than straight Black men, presumably because being labeled as gay reduces the magnitude by which Black men in leadership positions are perceived as threatening. Similarly, Remedios et al. (2011) found that gay Black men were judged as more likable and were more readily approached in a joystick task

**Table 1.** Core Assumptions, Strengths, and Weaknesses of the Lens Model versus MOSAIC.

| Framework | Assumptions | Strengths | Weaknesses |
|---|---|---|---|
| Lens Model (Petsko et al., 2022) | ➢ Perceivers attend to just one social category, or to one intersection of social categories, at a time.<br>➢ Stereotypes of targets are determined by prepackaged schemas in perceivers' minds. | ➢ Makes strong predictions about why some categories (but not others) become situationally salient. | ➢ Does not make strong predictions about how strongly perceivers are likely to apply racial stereotypes to targets when perceivers are indeed attending to targets' multiple social categories.<br>➢ Does not allow for the possibility that stereotypes of intersectional targets can result from generative processes. |
| MOSAIC (Hall et al., 2019) | ➢ Perceivers attend to multiple social categories at once.<br>➢ Stereotypes of targets result from a generative process by which perceivers integrate information about all salient social categories into a final impression of targets. | ➢ Makes strong predictions about how strongly perceivers are likely to apply racial stereotypes to targets when perceivers are indeed attending to targets' multiple social categories. | ➢ Does not make strong predictions about why some categories (but not others) become situationally salient.<br>➢ Does not allow for the possibility that stereotypes of intersectional targets can be determined by a prepackaged schema in perceivers' minds. |

*Note*. Lens Model = the lens-based account of intersectional stereotyping. MOSAIC = Model of Stereotyping through Associated and Intersectional Categories. Assumptions refer to basic theoretical assumptions that differentiate the lens model and MOSAIC. Prepackaged schemas refer to stored ideas for what intersectional targets look like, say, and do. Generative processes refer to the dynamic integration of stereotypes for all salient categories in a social context.

than straight Black men—presumably, once again, because learning that Black men are gay (vs. straight) can undercut threat-related response patterns. In an investigation of stereotype content itself, Bergstrom et al. (2024) found that a gay status reduced stereotypes of Black men as criminal, as violent, and as threatening. Finally, some research reveals that a gay status, relative to a straight status, can "de-racialize" Black men, psychologically distancing them from stereotypes associated with their racial ingroup (Petsko & Bodenhausen, 2019b; Preddie & Biernat, 2021). Thus, in at least some instances, racial stereotypes, and in particular threat-related racial stereotypes, appear to extend less strongly to gay Black men than to straight Black men. This is to say that Black-threat stereotyping *does* appear to unfold intersectionally in light of targets' sexual orientation groups.

However, and paralleling what has been described in the preceding sections, there are also situations in which Black-threat stereotyping does not appear to unfold intersectionally in light of targets' sexual orientation groups. Remedios and colleagues (2011, Exp. 2), for example, found that when instructed to avoid targets in a joystick task—a task that indexes threat-related response patterns—participants were quicker to avoid Black men than White men, and the magnitude of this racial bias held equally regardless of whether targets were gay versus straight. As another example, Petsko and Bodenhausen (2019a, Exp. 1) examined whether participants' tendency to exhibit a racial bias—here, a tendency to perceive Black (vs. White) defendants as being more culpable when accused of stereotypically Black crimes—would be moderated by whether defendants were gay versus straight. These researchers found that although perceivers did exhibit a racial bias, the magnitude of this bias was unmoderated by whether defendants were gay versus straight. Thus, there appear to be social contexts in which Black-threat stereotyping does not seem to unfold intersectionally in light of targets' sexual orientation categories.

## An Integrative Explanation: Using the Lens Model and MOSAIC in Tandem

Explaining these convoluted research findings requires careful consideration. To do so, we describe two recent models of intersectional stereotyping: the lens model of intersectional stereotyping (Petsko et al., 2022) and the model of stereotyping through associated and intersectional categories (i.e., MOSAIC; Hall et al., 2019). Below, we briefly describe the lens model and MOSAIC, respectively, including what their strengths and weaknesses are (for an overview of each model's core assumptions, strengths, and weaknesses, see Table 1). After describing these models, we present what we refer to as an *Integrative Framework of Intersectional Stereotyping* that blends the core theoretical assumptions of these models together. We suggest that such an integrative framework is useful for explaining contradictory findings in the research literature on Black-threat stereotyping as well as contradictory research findings in the literature on intersectional stereotyping more broadly.

### *The Lens Model*

Petsko et al. (2022) advanced a model of intersectional stereotyping called the *lens model*. The lens model argues that perceivers have a repertoire of different lenses that they can use as bases for stereotyping social targets, and that perceivers only use one lens at a time in a given social environment. In this perspective, lenses are construed as situationally activated

demographic schemas that perceivers use for categorizing others. The idea, for example, is that perceivers have a lens for the concept of race, a lens for the concept of gender, a lens for the concept of age, and so forth. In addition, the lens model argues that perceivers can have lenses that are *specifically intersectional*: for example, a lens for the concept of race and gender simultaneously, or a lens for the concept of age and sexual orientation simultaneously. Notably, the lens model assumes that intersectional lenses are retrieved from memory in the form of fixed, prepackaged schemas. The lens model does not assume, as other models do, that intersectional stereotypes result from generative processes (i.e., cognitive processes by which perceivers dynamically integrate information about multiple salient social categories into a final impression of targets; cf., Freeman et al., 2020).

A key stipulation of the lens model is that when one lens comes into focus, perceivers sharpen their attention on social categories that are relevant to that lens, but tend to lose focus, at least for the moment, on social categories that are irrelevant to that lens. For example, if perceivers are using the lens of race, they are expected to exhibit racial prejudice and racial stereotyping, but not—in these moments—gender prejudice or gender stereotyping. Likewise, if perceivers are using an intersectional lens, they are expected to exhibit intersectional prejudices and intersectional stereotypes, but not—in these moments—prejudices and stereotypes that are specific to targets' broader social group memberships (e.g., their racial groups more generally, or their gender groups more generally). Thus, paralleling insights from Black-feminist scholarship (Crenshaw, 1989), the lenses through which perceivers view others can at times be singular and simplistic—causing perceivers to view Black women as *Black*, for example, or causing perceivers to view Black women as *women*—and can at other times be intersectional and complex—causing perceivers to view Black women not as *Black* or as *women* per se, but as *Black women* specifically.

The lens model identifies four factors that influence whether perceivers use one lens over alternatives when stereotyping multiply categorizable targets (also see: Petsko & Bodenhausen, 2020): (a) *lens accessibility*, or the ease with which a lens can be retrieved from memory (Bruner, 1957; Higgins, 1996); (b) *lens fit*, or the extent to which a lens "explains," normatively or comparatively, patterns of intergroup behavior in a context (Oakes et al., 1991); (c) *perceiver goals*, or desired end states that motivate the use of some lenses over alternatives (e.g., Neel & Lassetter, 2019; Sinclair & Kunda, 1999); and (d) *distinctiveness*, or the extent to which a lens-associated category is rare and thus attention-grabbing in a social context (Hamilton & Gifford, 1976; McGuire et al., 1978). Under this rubric, perceivers are expected to apply race-based stereotypes to targets, including Black-threat stereotypes, when the lens of race, rather than an alternative lens, is made salient to perceivers (i.e., to the extent that the lens of race is the lens that is most accessible, best fits social reality, most strongly aligns with perceiver goals, and/or sharpens perceivers' focus on social categories that are rare). In contrast, if an alternative lens is made salient to perceivers, race-based stereotypes, including Black-threat stereotypes, are *not* expected to be applied to targets. Finally, according to the lens model, intersectional stereotypes are not expected to be applied to targets *unless perceivers are using an intersectional lens*.

*Strengths and Limitations of the Lens Model.* The lens model explains one of the main tensions with which we opened our review: that although perceivers can (and often do) stereotype others in light of their intersecting social categories (e.g., their race *and* their gender, or their race *and* their age), sometimes perceivers do not. Indeed, according to the lens model, there ought to be contexts in which perceivers use intersectional lenses, and there ought as well to be other contexts in which they use more simplistic lenses, like the lens of race by itself (Petsko & Bodenhausen, 2020). If perceivers are using an intersectional lens when engaging in Black-threat stereotyping, it would make perfect sense that the degrees of Black-threat stereotyping that are exhibited toward targets would be moderated by targets' intersecting social categories—like their gender (Johnson & Wilson, 2019), age (Kang & Chasteen, 2009), and sexual orientation (Bergstrom et al., 2024). For example, when asked to describe beliefs about social groups, perceivers tend to report less threat-related stereotypes of gay (vs. straight) Black men (Bergstrom et al., 2024). However, if perceivers are instead using the lens of race by itself, it would make perfect sense that the degree of Black-threat stereotyping that is exhibited toward targets *would not* be moderated by targets' intersecting social categories. For instance, criminal sentencing contexts may normatively fit perceivers' concept of Blackness, leading perceivers to exhibit comparable patterns of Black-threat stereotyping across targets' sexual orientation (Petsko & Bodenhausen, 2019a).

One of the key weaknesses of the lens model, however, is that although it delineates when intersectional identities will (vs. will not) come into a perceiver's focus, it assumes that perceivers' stereotypes about intersectional identities are determined by prepackaged schemas—prepackaged schemas of what *Black children* are like, for example, or of what *gay Black men* are like. But what happens if perceivers do not have a prepackaged schema for an intersectional grouping of people? And why is it that when perceivers are focusing on multiple identities at once, their Black-threat stereotyping tends to unfold in predictable, non-random ways: for example, that the application of Black-threat stereotypes tends to be tempered toward Black women (vs. men: Plant et al., 2011), tempered toward Black children (vs. adults: Thiem et al., 2019) and the Black elderly (vs. young adults: Bergstrom et al., 2024), and tempered toward gay Black men (vs. straight Black men: Petsko & Bodenhausen, 2019b)? These are questions that the lens model was not designed to answer. It is for this reason that we now turn our

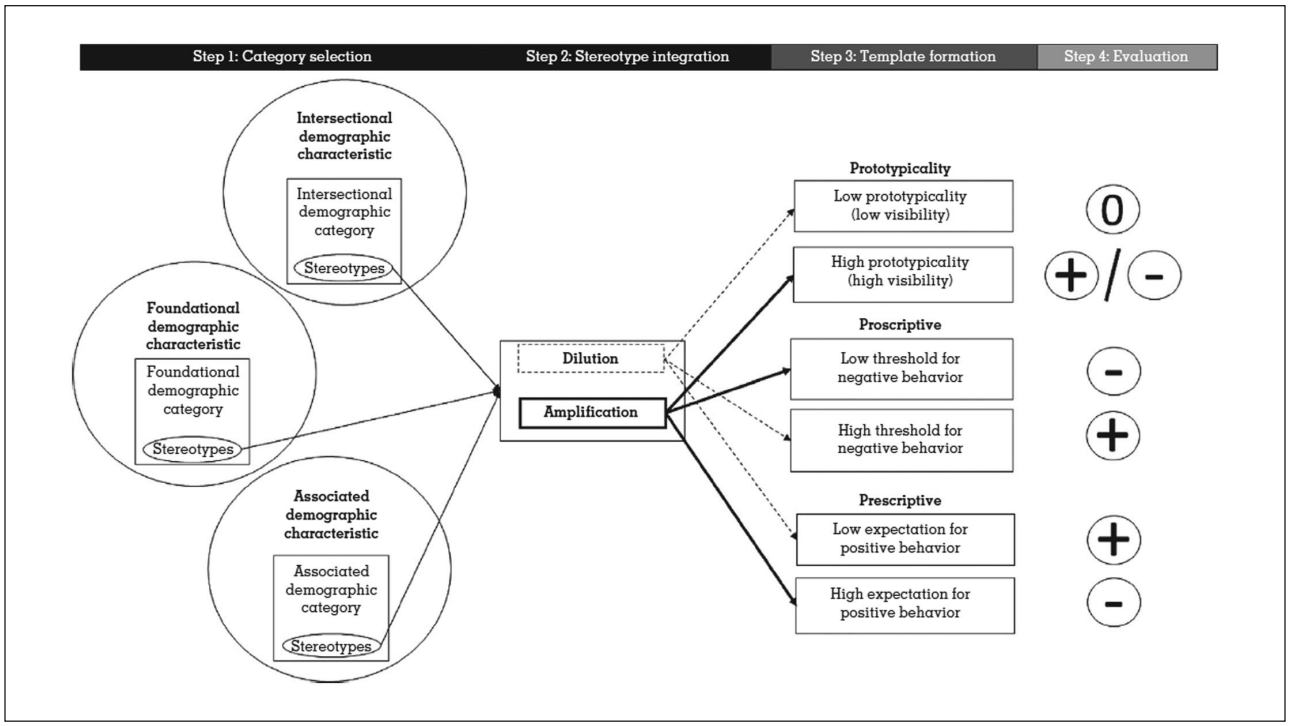


**Figure 1.** Model of Stereotyping through Associated and Intersectional Categories (MOSAIC).
*Note.* Figure and associated text first appeared in Hall et al. (2019) and are reprinted with permission. MOSAIC explains how stereotypes from intersectional and associated categories (i.e., ancillary categories) combine with a foundational category to form an evaluation. The steps (and the color fading) in the header denote the theorized progression within this process.

attention to MOSAIC, which is a model of stereotyping that centers on the predictable ways by which perceivers cognitively integrate group stereotypes when perceiving others intersectionally (Hall et al., 2019).

## *Mosaic*

Hall et al. (2019) proposed MOSAIC—a *model of stereotyping through associated and intersectional categories*—to capture how perceivers stereotype targets when considering targets' multiple social categories. MOSAIC outlines the process by which perceivers integrate the stereotypes of a target's many demographic categories, including their explicit categories and implicitly linked categories, to shape the expectations and evaluations of a given target. As such, researchers can apply MOSAIC to predict the stereotype content that perceivers will bring to mind when thinking intersectionally about targets.

MOSAIC outlines a four-step framework that researchers can use to predict distinct patterns of stereotypes that will be directed toward individuals that share one category membership but differ along other category memberships (see Figure 1). In the first step of the framework, the target's *foundational* and *ancillary* categories become salient to a perceiver. The *foundational* demographic category refers to the category membership that is shared between two targets. When perceivers are comparing White women to Black women, for example, the foundational category would be *women*. The ancillary categories consist of two different types: intersectional demographic categories and associated demographic categories. Intersectional demographic categories refer to explicit differences in demographic category memberships between individuals, encompassing attributes such as race, age, and sexual orientation. In the example in which perceivers are comparing White women with Black women, the intersectional categories would be *White* and *Black*, respectively. Finally, *associated* demographic categories are those that are implicitly tethered to the intersectional demographic categories in perceivers' minds.[4]

In the second step of the MOSAIC framework, a perceiver integrates the stereotype content of a target's intersectional and associated categories into their representation of the foundational category. This process of integration renders stereotypes of the foundational category either diluted or amplified. Dilution occurs when a target has two or more activated categories with conflicting stereotype content. For example, a Black woman is stereotyped as "docile" because she is a woman, but also "aggressive" because she is Black. Thus, the perception of her docility is likely offset by the aggressiveness associated with her being Black. Amplification, on the other hand, occurs when a target's social categories have consistent, reinforcing stereotypes, intensifying the perceived traits associated with those categories. For instance, a Black

man is stereotyped as particularly "aggressive" because he is Black and a man.

In the third step of the MOSAIC framework, perceivers use the amplified or diluted stereotype content to form evaluation templates. Specifically, evaluation templates shape how much perceivers attend to the stereotyped individual's behaviors (i.e., visibility templates) and how those behaviors are then interpreted (i.e., behavioral templates, including proscriptive and prescriptive). Targets of diluted stereotypes are seen as less prototypic of their foundational groups (e.g., as "less of a woman"), and thus evaluators tend to apply weaker proscriptive ("women ought *not* behave") and prescriptive ("women ought to behave") stereotype content of the foundational category. On the other hand, targets of amplified stereotypes are seen as prototypic of their category memberships, and evaluators accordingly apply more extreme prescriptive and proscriptive stereotype content.

In the fourth and final step of the MOSAIC framework, targets' behaviors are evaluated according to the behavioral templates in perceivers' minds. For targets with diluted stereotype content, perceivers will have higher thresholds for tolerating negative proscriptive behaviors associated with the target's foundational category, whereas targets of amplified stereotypes will receive harsher backlash for identical displays of the proscribed behavior. For example, a perceiver may have a higher threshold for a Black (vs. White) woman's dominant behaviors because "dominance" is socially prohibited for women, and Black women are perceived to be less prototypical of the category *women* (Livingston et al., 2012). Further, for targets of diluted stereotypes, perceivers will have lower expectations of their foundational category's positive prescriptive behaviors, praising them for exhibiting even small amounts of the desired behaviors, while targets of amplified stereotypes must exhibit more of the prescribed behavior to receive a similar positive evaluation.

*Strengths and Limitations of MOSAIC.* A key strength of MOSAIC is that it explains why, when perceivers are focusing on multiple identities at once, their Black-threat stereotyping tends to be moderated in predictable, non-random ways. For example, MOSAIC elucidates why perceivers exhibit attenuated levels of Black-threat stereotyping toward Black women (vs. men: Ghavami & Peplau, 2013; Plant et al., 2011), attenuated levels of Black-threat stereotyping toward children (vs. adults; Thiem et al., 2019) and older-adult (vs. young-adult) Black men (Bergstrom et al., 2024; Kang & Chasteen, 2009), and attenuated levels of Black-threat stereotyping toward gay (vs. straight) Black men (Petsko & Bodenhausen, 2019b; Remedios et al., 2011; Wilson, Remedios, & Rule, 2017b). In each of these cases, the intersectional categories of *women*, *child*, *old*, and *gay* are linked with stereotypes that dilute the force with which the foundational category of *Black* is associated with threat-related concepts. Overall, then, MOSAIC can be used to make sense of how targets will be stereotyped when they are indeed being perceived in light of their intersecting social categories.

One limitation of MOSAIC, however, is that it presupposes that perceivers' stereotypes about others result from generative processes rather than from the application of prepackaged schemas. Although there is considerable support for MOSAIC, and more broadly for the idea that impressions of others can indeed result from generative processes (e.g., Freeman et al., 2020; Kunda & Thagard, 1996), there is also support for the idea that sometimes, perceivers have specific schemata in mind for what an intersectional grouping of people is like (e.g., a schema of what *Black women* are like, or of what *East-Asian women* are like: Ghavami & Peplau, 2013). A second limitation of MOSAIC is that although it makes clear predictions about how racial stereotyping—and in the context of this analysis, Black-threat stereotyping—might be amplified or diluted in light of targets' intersectional categories, MOSAIC is relatively silent on what it is that causes certain social categories (but not others) to become situationally salient.[5] It is for these reasons that MOSAIC pairs well with the lens model: a model that a) allows for the possibility that intersectional stereotyping follows from the application of prepackaged schemas, and that b) is fundamentally concerned with issues of social category salience.

## *Putting it All Together: An Integrative Framework of Intersectional Stereotyping*

We propose that the core theoretical assumptions of the lens model and MOSAIC can be combined into what we refer to as an *Integrative Framework of Intersectional Stereotyping* (see Figure 2). Such an integrative framework is useful not just for explaining varied findings in the literature on Black-threat stereotyping, but likewise for explaining findings in the literature on intersectional stereotyping more broadly. The Integrative Framework begins from the observation that the lens model and MOSAIC have differing assumptions about whether intersectional stereotypes are integrated dynamically or whether they are instead stored in memory in the form of prepackaged schemas. As alluded to previously, MOSAIC implies that intersectional stereotypes are generative—that is, social categories are blended upon encountering intersectional targets in particular social contexts (similar to other dynamic models of person perception: Freeman & Ambady, 2011; Kunda & Thagard, 1996). In contrast, the lens model assumes that perceivers have preexisting schemas for what intersectional targets look like, say, and do (similar to other compartmentalization models of person perception: Bodenhausen & Macrae, 1998; Turner et al., 1987). The core assumption of the Integrative Framework—and indeed, its contribution to the literature on intersectional stereotyping—is that there are likely to be circumstances under which *either one* of these processes can occur.

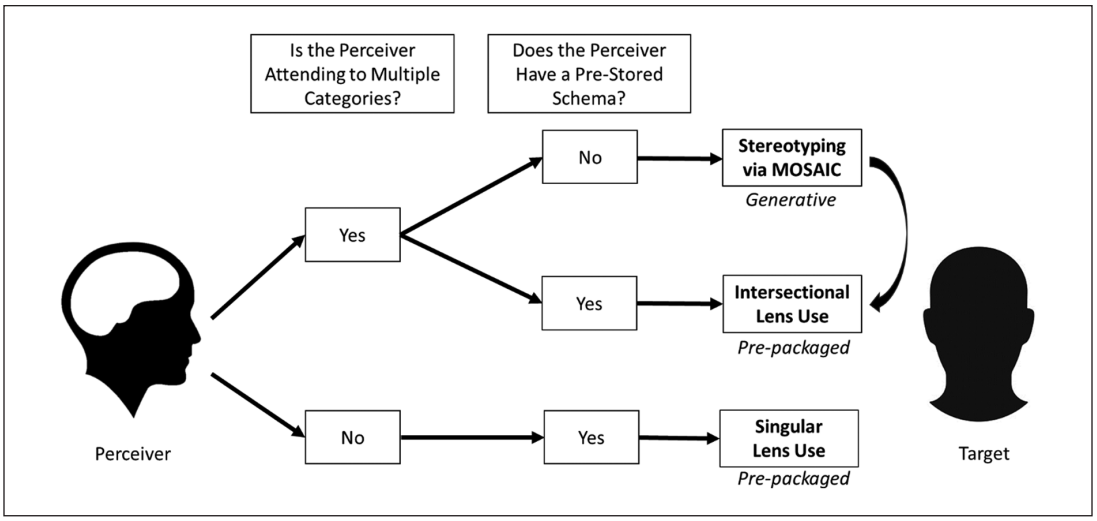


**Figure 2.** Visual depiction of the Integrative Framework of Intersectional Stereotyping.
*Note.* This is a visual depiction of the *Integrative Framework of Intersectional Stereotyping*. In essence, this framework proposes that lens model factors determine whether perceivers focus on multiple social categories at once (e.g., race and gender simultaneously) or instead focus on just one single category (e.g., race by itself). When perceivers are attending to multiple categories, MOSAIC is expected to govern intersectional stereotyping only on the provision that perceivers do not have a prestored schema for what an intersectional grouping of people is like. Finally, the framework allows for the possibility that MOSAIC processes can generate stereotype content about intersectional targets that, with repeated use, can form the basis of a prestored schema.

In the subsections below, we begin by describing the key propositions of the Integrative Framework (see Figure 3). Afterward, we provide answers to a question that lies at the heart of the Integrative Framework: When, theoretically, are generative versus stored intersectional stereotyping processes likely to unfold in a given social environment? And then finally, we discuss the utility of the Integrative Framework for explaining the varied findings in the literature on Black-threat stereotyping.

*What Are the Key Propositions of the Integrative Framework?.* The Integrative Framework first assumes that the four theoretical factors outlined in the lens model will govern which social category (or set of social categories) is rendered salient to perceivers in a given context (**Proposition 1**). This is to say that perceivers are expected to center their focus on whichever social category—or set of social categories—(a) is most *accessible* (Bruner, 1957; Higgins, 1996), (b) best *fits* social reality (Oakes et al., 1991), (c) is most in alignment with *perceiver goals* (e.g., Neel & Lassetter, 2019), and/or (d) is most *distinctive* in a social environment (e.g., Hamilton & Gifford, 1976).[6]

If only one category is rendered situationally salient and is thus activated, perceivers will stereotype targets through the inflection of a "prepackaged" schema relating to that singular category (**Proposition 2**). For instance, if a context is highly racialized (e.g., a policing encounter; Hall et al., 2016), perceivers may summon race-related schemas to mind—in this example, schemas of what *Black people* are

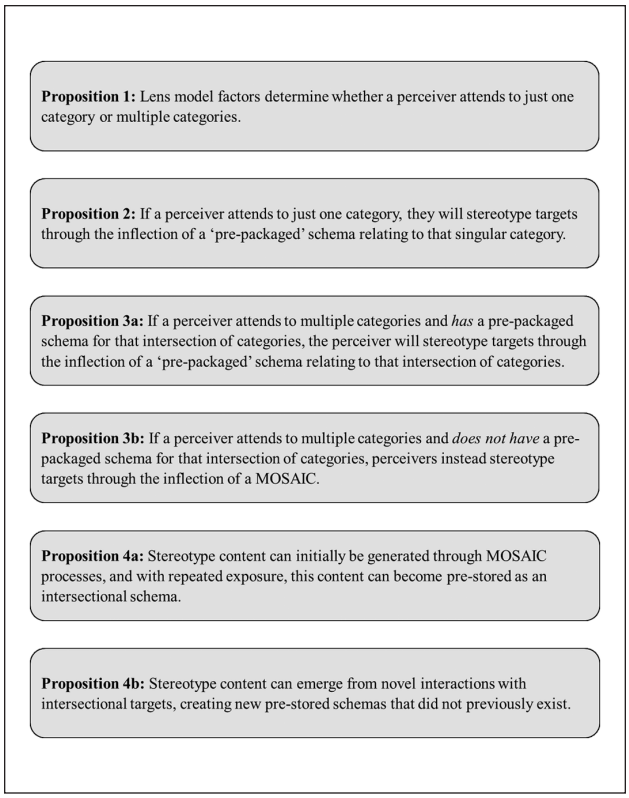


**Figure 3.** Theoretical propositions of the Integrative Framework of Intersectional Stereotyping.
*Note.* This is a visual depiction of key propositions of the Integrative Framework of Intersectional Stereotyping.

like, or of what *White people* are like. In these moments, perceivers are expected to use schema-associated categories, but *not* intersecting social categories, as a basis for stereotyping social targets. This is to say that in these contexts, perceivers are expected to exhibit racial stereotyping toward targets, but not stereotypes that are based on targets' intersecting age groups (Todd, Thiem, & Neel, 2016a), intersecting sexual orientation groups (e.g., Petsko & Bodenhausen, 2019a), or the like.

If the four theoretical factors outlined above invoke the salience of *multiple* social categories, the process underlying the stereotyping of intersectional targets will instead be governed by whether perceivers have prepackaged schemas for what intersections of people are like (Bodenhausen & Macrae, 1998; Turner et al., 1987). If perceivers have a stored schema for an intersectional grouping of people and are indeed attending to that intersectional grouping of social categories (e.g., to both race and gender), they will stereotype targets through the inflection of their prepackaged schema relating to that intersectional grouping (**Proposition 3a**). For instance, under these circumstances, perceivers for whom race and gender are made situationally salient will stereotype Black women through the inflection of their prepackaged schema of what *Black women* are like (Petsko & Bodenhausen, 2020).

Finally, if the theoretical factors outlined above invoke the salience of multiple social categories and perceivers *do not* have a prepackaged schema for what an intersectional grouping of people is like, perceivers will instead stereotype targets through the inflection of a MOSAIC (**Proposition 3b**). This is to say that in these moments, perceivers will generate an intersectional composite from the broader group stereotypes—and that, as MOSAIC suggests, perceivers will do so by cognitively integrating stereotypes related to targets' foundational, intersectional, and implicitly associated social categories (Hall et al., 2019). During integration, if an intersectional category's stereotype content (e.g., stereotypes of *women* as submissive) conflicts with stereotypes related to a foundational category (e.g., stereotypes of *Black people* as aggressive), the potency of the foundational category's stereotypes will be diluted (Livingston et al., 2012). On the other hand, if an intersectional category's stereotypes (e.g., stereotypes of *men* as assertive) are consistent with stereotypes related to a foundational category (e.g., stereotypes of *Black people* as *assertive*), the potency of the foundational category's stereotypes will be amplified (Hall et al., 2015). Thus, whether intersectional stereotypes follow from prepackaged schemas (i.e., lenses) or are instead generated (through a MOSAIC) is governed by whether perceivers do or do not have an established schema in memory for thinking about an intersectional grouping of people.

*Where Do Prepackaged Schemas for Intersectional Groups Come From?* The Integrative Framework assumes there are two paths to forming prepackaged schemas for what intersectional groupings of people are like. One possibility is that stereotype content is initially generated through MOSAIC processes, and that with repeated exposure, the content becomes stored in memory as an intersectional schema (**Proposition 4a**). For instance, Petsko (2022, Exp 3a) may have triggered a prestored schema that was originally created from a MOSAIC combination. When participants were asked to focus on race, they associated Black women with weapons. However, when they focused on the intersection of *Black women* specifically, the association between Blackness and weapons remained but was weakened, consistent with a MOSAIC amalgamation. This suggests that MOSAIC processes may influence the development of what eventually becomes prestored schemas.

Another possibility is that intersectional schemas are stored after unique interpersonal experiences or the consumption of cultural artifacts (e.g., media depictions). Notably, and consistent with the arguments of existing compartmentalization models (Petsko et al., 2022), prepackaged schemas of intersectional groupings may or may not be overlapping with broader schemas of singular social categories. This is to say that prepackaged schemas of what Black women are like may have stereotype content that either is or is not overlapping with those of what women more generally are like or of what Black people more generally are like (Ghavami & Peplau, 2013). Thus, the Integrative Framework allows for the possibility that intersectional stereotype content can be generated through unique interactions with intersectional groups that lead to unique stereotype content (**Proposition 4b**). For example, if a perceiver encounters a group of Black women who are particularly funny, the perceiver might develop a prestored schema for Black women that includes humor, even though neither the broader group stereotypes of Black people nor women typically include "funny" as a core trait.

*When are Intersectional Stereotypes Stored versus Generated?* As noted above, a core assumption of the Integrative Framework is that sometimes, intersectional stereotypes follow from prepackaged schemas that perceivers have developed (Proposition 3a), whereas at other times, intersectional stereotypes follow from generative processes (Proposition 3b). This, of course, raises a question: When, theoretically, might perceivers be expected to develop prepackaged intersectional schemas, and when instead might perceivers *not* be expected to develop prepackaged intersectional schemas? We suggest that there are at least three theoretical factors that are relevant to this question, which in turn ought to have implications for whether perceivers engage in generative (Proposition 3b) versus schematic (Proposition 3a) intersectional stereotyping. These three factors are: (a) *frequency of exposure* to an intersectional grouping of people; (2) *epistemic utility* of having a prepackaged intersectional schema; and (3) the *configural complexity* of the intersectional grouping itself.

*Frequency of exposure.* One theoretical factor that ought to determine whether perceivers' intersectional stereotypes can follow from prepackaged schemas (Proposition 3a) versus generative processes (Proposition 3b) is the frequency with which perceivers are exposed to members of a particular intersection. For instance, a perceiver who frequently encounters Black boys—either in real life or media depictions—may recall stereotypes of that specific intersection without having to integrate the stereotypes of the singular categories (i.e., *Black people* and *boys*). In contrast, a perceiver who very rarely encounters Black boys may not have a prepackaged schema for what Black boys are like. In turn, these latter perceivers may be likely to engage in a generative process of intersectional stereotyping.[7] It is worth noting that this line of reasoning is supported by theoretical accounts of both subtyping and subgrouping (Park et al., 1992; Richards & Hewstone, 2001). At a high level, these literatures suggest that the frequency with which perceivers engage in these processes—that is, the frequency with which perceivers develop schemas that are sub-specified relative to broader social categories—is correlated with the frequency of exposure to members of a given group.

*Epistemic utility.* A second theoretical factor that is expected to moderate whether intersectional stereotypes come to be stored in memory (Proposition 3a) or instead need to be integrated dynamically (Proposition 3b) is how useful perceivers deem stereotypes related to a particular intersection to be for navigating future social encounters. For example, if a perceiver believes they will have an epistemic need to differentiate between different subgroups of Black people in the future (e.g., gay Black men, Black girls, and older Black women), they may come to develop a sophisticated suite of preformed schemas for what each of these particular intersectional groupings of people tends to be like. In contrast, if a perceiver believes that they will have no epistemic need to differentiate between different subgroups of Black people in the future, they may be less likely to generate nuanced, intersectional schemas that are stored in memory. Instead, these perceivers would be expected to engage in generative processes outlined by MOSAIC when thinking intersectionally about others. Of note, the notion that perceivers may form prepackaged schemas for social classifications that feel epistemically useful has its roots in developmental intergroup theory (Bigler & Liben, 2006, 2007). This perspective suggests that children (and by extension, adults) learn to attend to certain social classifications over others to the extent that their socialization experiences reinforce the notion that some classifications are more useful than others for making sense of who's who (Bigler et al., 2001; Gelman & Heyman, 1999). Thus, it stands to reason that intersectional schemas will be stored in memory to the extent that they provide perceivers with a sense of subjective epistemic utility.

*Configural Complexity.* A final theoretical factor that may influence whether perceivers develop prepackaged intersectional schemas (vs. not) is how many social categories need to be called to mind at once when thinking intersectionally about others. For example, it may be easy for perceivers to store preformed schemas for particular intersections when only a couple of social categories constitute that intersection (e.g., a preformed schema of *Black women*). But it may be more challenging for perceivers to store preformed schemas when five or six social categories constitute that intersection (e.g., a preformed schema of what *gay, upper-class, middle-aged Black women* are like). In this latter circumstance, perceivers may simply construct their intersectional stereotypes using the available and salient broader group categories. The notion that the configural complexity may impose limits on the likelihood that perceivers can store a schema in memory has its roots in the observation that people gravitate toward cognitive simplicity when creating mental representations of others (Macrae & Bodenhausen, 2000).

*What is Gained from an Integrative Framework of Intersectional Stereotyping?* As noted previously, the lens model (Petsko et al., 2022) and MOSAIC (Hall et al., 2019) have differing assumptions about whether intersectional stereotypes are stored in memory or whether they are instead dynamically integrated. The core assumption of the Integrative Framework is that there are circumstances under which either one of these processes can occur. Consistent with the assumptions of MOSAIC, there are circumstances in which the stereotypes applied to multiply categorizable targets can be dynamically constructed (for a review, see Freeman et al., 2020). And consistent with arguments of the lens model, there are alternative circumstances in which perceivers store unique stereotypes related to intersectional categories in their memories (Ghavami & Peplau, 2013), which can then become situationally activated (Petsko et al., 2022; see also: Macrae et al., 1995; Sinclair & Kunda, 1999). According to the Integrative Framework, the key factors that determine whether the former versus the latter are capable of unfolding—in essence whether perceivers do (vs. do not) develop prestored intersectional schemata—are (1) *frequency of exposure* to intersectional groupings of people, (2) the perceived *epistemic utility* of having a prepackaged intersectional schema, and (3) the *configural complexity* of the intersectional grouping.

What makes the *Integrative Framework of Intersectional Stereotyping* useful for organizing the literature on intersectional Black-threat stereotyping? As alluded to previously, the literature on Black-threat stereotyping suggests that there are certain moments in which people clearly exhibit Black-threat stereotypes intersectionally—that is, in light of the identities with which targets' racial groups intersect—and other moments in which they do not. In addition, the literature on

Black-threat stereotyping suggests that when perceivers *do* attend to intersections, they often temper the magnitude of their Black-threat stereotypes toward Black women (relative to Black men; Plant et al., 2011), toward gay Black men (relative to straight Black men; Petsko & Bodenhausen, 2019b), toward Black children (relative to fully grown Black adults; Thiem et al., 2019), and toward the Black elderly (relative to young adults; Bergstrom et al., 2024). The utility of the Integrative Framework of Intersectional Stereotyping is that it can explain all of these observations.

Because the Integrative Framework adopts from the lens model the notion that perceivers sometimes attend to just one social category and at other times attend to multiple social categories, it can explain perceivers' tendency to at times exhibit intersectional patterns of Black-threat stereotyping, and to at other times exhibit Black-threat stereotyping in equal measure toward targets of different intersections. Because the Integrative Framework adopts from MOSAIC the notion that ancillary categories can amplify or dilute racial stereotypes that are applied to intersectional targets (Hall et al., 2019), the Integrative Framework can explain perceivers' tendency to exhibit tempered levels of Black-threat stereotyping toward Black women, Black children, and older adults, and gay Black men. Although we have used this review to discuss how the Integrative Framework can be used to explain findings in the literature on Black-threat stereotyping specifically, our contention is that the Integrative Framework can be used to explain intersectional stereotyping effects across a wide range of contexts—for example, the context of whether perceivers apply Asian-math associations to Asian individuals (Cvencek et al., 2015), male-science associations to men (Miller et al., 2015), or gay-STI associations to gay people (Rice et al., 2022), just to name a few.

Finally, the Integrative Framework is useful not just because it can be used to explain varied patterns of empirical findings (e.g., in the literature on intersectional Black-threat stereotyping), but likewise because it makes new theoretical predictions that can advance how scientists think about intersectional stereotyping. In particular, the Integrative Framework suggests that whether generative versus stored schema-based intersectional stereotyping unfolds is dependent upon frequency of exposure to an intersection, the epistemic utility of having a stored schema for an intersection, and the configural complexity of an intersection itself. Each of these theoretical possibilities should be subject to future investigation, as understanding what moderates generative versus stored intersectional stereotyping processes will be informative not just about whether specific kinds of stereotyping—such as Black-threat stereotyping—are likely to unfold in a given social context, but also about how harmful stereotypic associations may be combated. For instance, if intersectional stereotypes are being integrated dynamically, perceivers' Black-threat stereotypes would be expected to decrease only to the extent that a threat-disarming category (e.g., *women*) is activated in tandem with racial categories. On the other hand, if intersectional stereotypes are applied on the basis of a prestored schema, perceivers' application of Black-threat stereotypes would be expected to decrease only to the extent that their schema itself changes over time (e.g., as a result of stereotype updating processes, such as consuming increasingly positive media portrayals of Black Americans).

## A Roadmap: Future Research on Intersectional Black-Threat Stereotyping

The prior two sections of the current analysis summarize (a) what is known about the application of Black-threat stereotypes to intersectional targets, and (b) how two contemporary models—the lens model and MOSAIC—can be used together to make sense of this convoluted research literature. In particular, we advocated for combining the core assumptions of these models into an *Integrative Framework of Intersectional Stereotyping*, the central contribution of which is that intersectional stereotypes may at times be retrieved from memory and may at other times be dynamically generated. In this third and final section of our analysis, we raise three questions that are relevant to advancing the field's understanding of intersectional Black-threat stereotyping: (a) Is stereotype integration context-specific?; (b) Is stereotype integration trait-specific?; and (c) Are methodological choices constraining the state of knowledge on intersectional stereotyping? Our hope is that by raising these questions, we generate something of a roadmap for future research on this topic—one that might enable social scientists to better understand how intersectional stereotyping operates, and as well, that might identify factors that can undercut the pernicious influence of Black-threat stereotyping on Black Americans.

### *Is Stereotype Integration Context-Specific?*

An issue that is left unaddressed by the Integrative Framework is the idea that stereotype integration—and in particular, the results of viewing others through the inflection of a MOSAIC (Proposition 3b)—may be context-specific. For example, it is plausible that the theoretical factors implicated in category salience (e.g., distinctiveness) determine not just whether perceivers attend to one social category versus multiple social categories, as we have argued, but also how heavily perceivers *weigh* certain categories when generating stereotypes about others. If a person's race and age were made simultaneously salient to perceivers, for example, and if the context itself were to provide slightly more normative fit to the concept of race than to the concept of age, it is conceivable that the resulting stereotype content that results from viewing others through a MOSAIC will end up being influenced more by race than by age.

Data that are relevant to this this theoretical possibility can be found in an experiment that examined whether the tendency to associate Black women (vs. White men) with

threat-related concepts (specifically, words like "weapon," "gun," and "pistol") would depend on whether perceivers were attending to race by itself, gender by itself, or to race and gender simultaneously (Petsko et al., 2022; Exp 3a). Results revealed that when perceivers attended to race by itself—categorizing Black women as *Black* and White men as *White*—perceivers more quickly associated Black women (vs. White men) with weapons. However, when perceivers instead attended to gender by itself—categorizing Black women as *women* and White men as *men*—perceivers more quickly associated White men (vs. Black women) with weapons. Finally, and most relevant to the current discussion, these effects became more nuanced when perceivers were thinking intersectionally about targets—categorizing Black women specifically as *Black women* and categorizing White men specifically as *White men*. Under this final set of circumstances, Black women continued to be stereotypically associated with weapons more quickly than White men were associated with weapons, but the magnitude of this bias was attenuated as compared to when perceivers attended to race by itself. These results suggest that in the context of this experiment, participants who were attending to race and gender simultaneously may not have been incorporating each of these categories equally into their final impressions of Black women. Instead, race may have played a greater role than gender in shaping perceivers' final impressions.

Findings like those described in the preceding paragraph may be best understood by considering the possibility that MOSAIC-inflected stereotyping is a context-specific phenomenon, with situational forces impacting whether particular categories are weighed more heavily than others when stereotypes are being generated. For instance, it is plausible that perceivers weighed racial stereotypes more strongly than gender stereotypes in stereotype integration in the context of the experiment described above, specifically because the words used in the experiment (i.e., words related to weapons) normatively fit the concept of race more than the concept of gender (Eberhardt et al., 2004). If the evaluative context were to have been different, however, like an experimental paradigm in which Black women and White men were being associated with words related to physical formidability (e.g., body size, Johnson & Wilson, 2019), it is plausible that gender might have been weighed more strongly than race in governing perceivers' final impressions of intersectional targets.

## *Is Stereotype Integration Trait-Specific?*

Another future direction that warrants further empirical attention concerns how trait-specific versus category-general stereotype integration processes themselves may be. According to many stereotype integration models—including MOSAIC as well as the *Integrative Framework of Intersectional Stereotyping* developed here—learning that a Black man is gay, for example, can influence not just how "threatening" this person seems (i.e., the perception of a specific trait), but likewise "how Black" this person seems overall (i.e., the perception of more general category stereotypicality; Petsko & Bodenhausen, 2019b). While there is indeed evidence that a target's membership in one social category can influence the perception of stereotypic fit with a conceptually orthogonal category—that learning that a target is upper-class, for example, can change how you think about that target's race as a whole (Freeman et al., 2011)—there are also instances in which stereotype integration appears to be more trait-specific than this.

Take findings on the diluted threat stereotyping of obese Black men. Sim et al. (2022) found that obese (vs. nonobese) Black men were perceived as less threatening, but not as less racially prototypic overall. Thus, the observed integration effects in Sim et al.'s analysis were limited to traits along which the stereotype content of Black men and obese people, respectively, were in conflict (Black men as physically formidable versus obese men as physically incapable). These findings differ from the broad de-racialization patterns observed by others (e.g., Petsko & Bodenhausen, 2019b). Similarly, Livingston et al. (2012) found that a higher social-class category (i.e., being a business leader) was not sufficient to dilute the threat stereotyping of Black men. Thus, even if a category (e.g., *wealthy*, *educated*) greatly conflicts with stereotypes of Black people, it may not impact perceptions of threat per se. In light of findings such as these, greater research attention should be given to the topic of how trait-specific versus category-general integration processes may be. For integration processes to effectively reduce threat-related stereotyping of Black Americans, the categories being integrated in perceivers' minds may need to be specifically those that disarm threat perceptions, such as categories associated with warmth—such as children, the elderly, women, in-groups, or similar groups.

As a related matter, a more nuanced understanding of how trait-specific (vs. category-general) stereotype integration processes are may likewise help researchers better understand the different manifestations of Black-threat stereotypes that are targeted at Black Americans. Indeed, much of the literature on Black-threat associations has focused on *physicalized* forms of Black-threat stereotypes (e.g., associations with crime, physical formidability, and violence)—forms of bias that are targeted most strongly at young, straight, Black men, or the "default group" of Black Americans (Purdie-Vaughns & Eibach, 2008). This may contribute to the belief that Black men are stereotyped as more threatening than other multiply categorizable Black targets (see Crick & Grotpeter, 1995). However, Black men may specifically face more physicalized forms of threat stereotyping due to the particular traits that compound between the categories *Black* and *male* (Ghavami & Peplau, 2013). The integration of physical-aggression-related stereotypes of Black people and of men, respectively, may explain why Black men are disproportionately perceived as physically formidable (Johnson &

Wilson, 2019) and as physically dangerous (Plant et al., 2011). On the other hand, Black women (vs. Black men) may face more *relational* forms of threat stereotyping due to trait-specific stereotypes of women as talkative, for example, merging with trait-specific stereotypes of Black people as aggressive and loud (Ghavami & Peplau, 2013). These interacting associations may contribute to ideas that Black women are especially verbally aggressive, a stereotypic association that has marked portrayals of Black women in U.S. media for almost a century (Walley-Jean, 2009). This "angry-Black woman" trope paints Black women as bitter and ill-tempered, and it represents an archetype that negatively impacts Black women in many life domains, including interpersonal encounters (Lewis et al., 2016), mental health care contexts (Ashley, 2014), and the workplace (Motro et al., 2022).

Future work would benefit from exploring the possibility that stereotype integration, and particularly the emergence of Black-threat stereotyping itself, may be trait-specific. Such an exploration could help to refine the predictions scientists make about who is likely to be stereotyped as threatening, and even more, about what variation of threat is likely to be attributed to targets. It is conceivable that Black women, Black children, Black people with disabilities, and the like are stereotyped not just as possessing not just different degrees of threatening characteristics, but likewise as possessing different *types* of threatening characteristics altogether (e.g., being portrayed as physically aggressive, verbally aggressive, mentally unstable, or something else entirely). These insights can also shed light on the diverse ramifications of Black-threat associations, which unfold in many life domains such as policing encounters, classrooms, workplaces, health care settings, and courtrooms.

## *Methodological Constraints on the State of Knowledge*

Are the methodological choices that researchers make in the literature on intersectional stereotyping constraining the pace of knowledge development? In this final section of the roadmap, we conclude with a discussion of how future work may grapple with issues of measurement, particularly as they pertain to the Integrative Framework developed here.

*A Lack of Attention to the Idea that Comparison Groups Matter.* One methodological constraint in the intersectional stereotyping literature is the lack of attention to comparison groups. Which intersectional groups are contrasted against one another in an experimental paradigm (or just in a given analysis) may matter considerably when making predictions of how strongly stereotypes will be applied to targets. For instance, the extent to which Black women are stereotyped as threatening may differ depending on whether they are evaluated in isolation, in comparison with White women, in comparison with Black men, or in comparison to multiple groups at once (see Plant et al., 2011; Cook & Over, 2021 for similar arguments). This is because reference points can shift across these comparative contexts. It is conceivable, for example, that the mere presence of a less stereotypically threatening group (e.g., East-Asian women) can, by comparison, increase the perceived threat of an alternative target group (e.g., Black women).

Consider the findings in Plant et al. (2011). When only showing White faces (Study 1), Plant et al. found that White men were perceived as the most threatening group: participants tended to overshoot White male suspects relative to White female suspects. However, when Black male and female faces were added to the paradigm (Study 2), participants expressed the most shooter bias toward Black men. In fact, the shooter bias for White men relative to White women became smaller in Study 2—presumably because the presence of Black men reduced how threatening White men seemed by comparison. Overall, the next horizon of intersectional stereotyping research would benefit from considering the impact of comparison groups on intersectional stereotyping outcomes.

*Overreliance on Reaction-Time Testing.* According to the Integrative Framework, there are certain contexts in which perceivers will be incentivized to attend to just one social category—for example, to race by itself. In these moments, the Integrative Framework suggests that perceivers will stereotype targets in light of targets' racial groups, but not in light of targets' intersecting group memberships. The assumption that there are moments in which a single category can become highly salient to perceivers is held not just by the Integrative Framework, but by other compartmentalization models of person perception, including the lens model (Petsko et al., 2022), self-categorization theory (Turner et al., 1987), and the stereotype activation–inhibition model (Bodenhausen & Macrae, 1998). Although there is ample research, particularly in the context of Black-threat stereotyping, suggesting that perceivers do indeed sometimes exhibit patterns of racial stereotyping that are not moderated by targets' intersecting identities (Lundberg et al., 2018; Petsko et al., 2022; Todd, Thiem, & Neel, 2016a), a limitation of this literature is that much of the empirical support for single-category salience has been documented in paradigms that employ reaction-time tests (e.g., implicit association tests and sequential priming procedures). Thus, questions remain about the extent to which single-category salience generalizes to the wider world.

A pressing future direction for the study of intersectional stereotyping, therefore, is to test for the possibility that singular categories can become salient to perceivers at the expense of intersecting social categories *even in* experimental settings that are high in ecological validity. At present, it is unclear whether single-category salience, although clearly possible, occurs with frequency in information-rich environments, such as workplaces, educational settings, or courtrooms. In addition, it is presently unclear whether the contradictory findings outlined in the first section of this manuscript are best explained

by theoretical variables that are implicated in social category salience, as we have argued, or whether they are instead best explained by methodological choices, like whether researchers did or did not employ reaction-time tests when examining Black-threat stereotyping.

*Underutilization of Ecologically Valid Data.* Lastly, an overreliance on artificial lab-based experiments, like those detailed above, has led to an underutilization of ecologically valid data in the intersectional stereotyping literature. This presents an issue for the literature on intersectional (Black-threat) stereotyping, as findings from highly controlled experiments might not translate to the real world. In this final segment of our discussion on methodological constraints, we provide examples of approaches that researchers might take to examining the propositions of the Integrative Framework in more ecologically valid contexts. In particular, we briefly discuss naturalistic ways to measure variation in perceiver goals, features of targets that might impact category salience, and natural language usage that might give insight into lens-switching dynamics.

*Measuring perceiver goals.* The Integrative Framework argues, as the lens model does, that perceivers' goals have an influence on which social categories become situationally salient to them. One perceiver's goal that could be readily tracked in real-world contexts is the goal of threat vigilance. This goal is rooted in the concept of biased threat detection, which is an evolutionary mechanism where perceivers err on the side of caution by interpreting ambiguous stimuli as dangerous (Isbell, 2009). A common example of biased threat detection is mistaking inanimate objects for snakes or other predators, which offers an evolutionary advantage by reducing the risk of misinterpreting a threat (Öhman & Mineka, 2001, 2003). Similarly, in high-cost situations, perceivers tend to prioritize the social category associated with the greatest threat while disregarding intersecting categories that might mitigate perceived threat.

This phenomenon was demonstrated in a paper by Remedios et al. (2011), where participants performed a joystick task, approaching or avoiding gay or straight Black male faces. While participants approached gay Black male faces faster than straight Black male faces, no difference was observed between Black faces in avoidance responses, regardless of sexual orientation. The authors concluded that the higher cost of failing to *avoid* threatening stimuli (i.e., Black faces) led perceivers to prioritize the category with the highest perceived threat—race—over the warmth-related stereotypes linked to the gay category. How might scientists generalize these findings to everyday contexts? One example could be to track the policing behaviors toward Black men and Black women during the day relative to policing behaviors during the night. If darkness heightens vigilance to threats, police officers' goal of avoiding danger would result in them using the same level of force toward Black suspects, regardless of gender, during evening shifts, but applying less force toward Black women compared to Black men during daytime shifts.

*Measuring Variations in Target Prototypicality.* According to the principle of normative fit (Oakes et al., 1991), perceivers are likely to use a particular category for construing others to the extent that their perceptual environment is stereotypically linked with that category. An issue worth raising for researchers who study intersectional stereotyping is that target prototypically may itself be a component of the perceptual environment that perceivers use to assess normative fit. This is to say that targets' phenotypic prototypicality (Blair & Judd, 2010)—and perhaps even their dress (Hester & Hehman, 2023)—may be crucial factors that determine the extent to which perceivers are likely to use the lens of race over alternative lenses. In line with this idea, past work finds that Black people who are physically representative of their racial group—like those with features judged as stereotypic of Black Americans (e.g., darker skin tone)—face more extreme racial stereotypes (Maddox & Gray, 2002) and related consequences (e.g., death penalty; Eberhardt et al., 2006). To the extent that findings like these are driven by the lens of race being drawn into focus, perceivers might be expected to exhibit high levels of Black-threat stereotyping toward highly race-typical Black targets, irrespective of these targets' intersecting identity groups. This possibility is one that could very easily be examined in real-world environments.

*Measuring Natural Language.* Finally, scientists might refine their understanding of intersectional stereotyping, and of the proposed Integrative Framework in particular, by examining the everyday natural language that people use to describe social groups in the media and in literature. For instance, researchers can employ Large Language Models (LLMs) to quantify a category's association with specific stereotypes across numerous sources of written text (see Aceves & Evans, 2024; Lawson et al., 2022, for examples). LLMs map the association among concepts and characteristics, or in this case, categories and stereotypes, within large volumes of text. Within the model mapping, concepts that are closer in conceptual space tend to co-appear more frequently in text and are, therefore, more likely to be semantically related. Thus, these advanced algorithms can assist researchers in investigating how various contextual factors enhance the salience of social categories and impact stereotype content. For example, researchers could explore how contexts augment the conceptual distance between the intersectional category of "Black women" and its constituent categories, "Black" and "Women." If the Black Lives Matter movement indeed made the lens of race more chronically accessible for perceivers, we would expect the "Black woman" category to be conceptually closer to the "Black" category than the

"woman" category in media texts published immediately after the movement's inception, compared to those published before. Consequently, within the conceptual mapping, the "Black woman" category would be closer to stereotypes associated with Black people (e.g., aggressive, athletic) than to those associated with women (e.g., docile and meek). This is just one example of many investigations that LLMs might afford.

## Constraints on Generality

It is worth noting that the specific participant samples and methods we examined in the current review may constrain the generality of our claims (Simons et al., 2017). The literature largely captures White U.S. perceivers' Black-threat associations. While there is some research on Black U.S. perceivers' associations between threat and their ingroup (e.g., Correll et al., 2002; Wilson, Hugenberg, & Rule, 2017a), data on this topic tend to be more limited. Thus, much of the current analysis characterizes the stereotyping processes of predominantly White U.S. perceivers—a privileged population that is no doubt more likely to endorse anti-Black bias than their Black peers (Sawyer & Gampa, 2018).

In addition, research on Black-threat associations has overwhelmingly focused on physicalized forms of threat (e.g., associations with crime, physical formidability, and violence)—forms of bias often targeted at young, straight, Black men. Other forms of Black-threat associations (e.g., relational threat and employment threat) were not fully unpacked in the current review. Indeed, unique patterns of Black-threat associations may unfold for different types of threat evaluations, patterns wherein Black men may not always be met with the most amplified stereotypes. Similarly, research on Black-threat stereotyping across diverse social categories is limited, with most findings speaking to racial stereotypes that are applied to targets of different gender groups, age groups, and sexual orientation groups. Research related to other intersecting categories (e.g., ability status and education level) is sparser. Our hope is that future research will more fully explore the generality of Black-threat stereotyping processes across different types of threat, as well as across different intersectional groupings of people.

Finally, psychological science in the U.S. has largely relied on experimental methods (e.g., IAT) that do not always speak to the lived experiences of marginalized groups. The conclusions of this review may do well to characterize intersectional stereotyping in the minds of perceivers, but they may be less adequate for understanding the lived experiences of those who are multiply marginalized. An important next step for research on intersectional stereotyping—at least as studied by experimental psychologists—is to examine the extent to which models of intersectional person perception accord with models of targets' lived intersectional experiences.

## Citations Statement

The authors cited in the current review primarily reside in the United States and work at American universities, which likely places constraints on the types of knowledge developed here. Nevertheless, the authors cited in the current review do vary along various axes of social identification (e.g., gender identities, sexual orientation identities, and ethnic identities), offering at least some diversity into the perspectives that weigh in on the phenomena described here.

## Concluding Remarks

According to The Washington Post, Black Americans are killed by police at over twice the rate of White Americans (retrieved Aug. 10, 2023)—a statistic that is driven, at least in part, by a pernicious tendency among U.S. citizens to disproportionately stereotype Black Americans as threatening. To be clear, this is just one devastating consequence of many. Black Americans report discrimination in numerous domains of life, including employment, health care, judicial hearings, and interpersonal encounters (Bleich et al., 2019). In light of these disparities, the present analysis sought to review the growing literature on Black-threat stereotyping, with a particular emphasis on when Black-threat stereotyping is—or in some instances, is not—moderated by the intersecting social categories to which Black Americans belong. The findings in this research literature are varied, though we argue that they can be well-explained by the tandem assumptions of the lens model (Petsko et al., 2022) and MOSAIC (Hall et al., 2019)—and in particular, by a framework developed here that we refer to as the *Integrative Framework of Intersectional Stereotyping*. A core contribution of the Integrative Framework is that there are likely to be instances when intersectional stereotypes are retrieved from memory, and other instances when intersectional stereotypes are dynamically generated. Finally, this analysis summarized future directions for the research literature on intersectional stereotyping. This summary was meant to constitute a roadmap for researchers who investigate this topic. Our hope is that this roadmap propels this research literature forward, enabling scientists to better understand how intersectional stereotyping operates, and as well, to identify factors that may undercut the pernicious influence of Black-threat stereotyping on Black Americans.

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## Notes

1. This review focuses on race-by-gender, race-by-age, and race-by-sexual-orientation intersections, not because these intersections are the most consequential bases along which targets are stereotyped, but very simply because the research literatures on these intersections are developed enough that we can write about them with a degree of certainty. In the final segment of this manuscript, we call for greater research on intersectional Black-threat stereotyping, including more research on how Black-threat stereotyping may be moderated by other social categories, such as targets' social-class backgrounds, ability statuses, and the like.
2. Of note, not every measure in Thiem et al.'s (2019) analysis revealed that Black-threat stereotyping is applied equally strongly to men versus women. An analysis of reaction times (rather than how objects were categorized) revealed evidence that Black-threat stereotyping may indeed be directed more strongly toward Black men than toward Black women.
3. Todd, Thiem, & Neel, (2016a) centered the magnitude of racial bias within the target age group (i.e., the degree of racial bias among child primes was comparable to the degree of racial bias among adult primes). The influence of target age (i.e., the main effect of target age) on weapon identification was not consistent across studies, even finding in one analysis that participants misidentified tools as guns more often after child primes than adult primes (Exp. 2a). Nonetheless, the impact of comparison groups, like which groups are contrasted in an analysis matters. We return to this issue in the final section of the current analysis.
4. In MOSAIC, *associated* demographic categories can be implicitly linked to the *intersectional* demographic categories through many routes, including top-down stereotype overlap between categories (Freeman et al., 2011, 2020; Freeman & Ambady, 2011), bottom-up phenotypic overlap between categories (e.g., Johnson et al., 2012), frequent co-representation of social categories in a larger culture (e.g., Black Americans being frequently portrayed as lower class in media outlets; Harwood, 2022), or motivated social construction (e.g., linking Black children to adults to justify harsher treatment of Black children; Goff et al., 2014).
5. Though, to be fair to MOSAIC, there is some discussion of what causes certain categories to become salient. Specifically, in this perspective, social categories are expected to become salient to perceivers to the extent that these categories are "visible, contextually contrasted, or important to the evaluator" (Hall et al., 2019, p. 651).
6. It is important to note that the four theoretical factors outlined in the lens model may not be exhaustive of all the factors that govern social category salience. For instance, *limited category processing time* may be a factor that constrains perceivers' ability to attend to multiple social categories, particularly when perceivers do not have a prepackaged schema for an intersection of social categories.
7. We also acknowledge that there may be some contexts in which frequent, positive encounters with an intersectional group lead perceivers to cease applying stereotypes and rather rely on individuating information. For instance, encounters with Black boys may initially lead a perceiver to store a schema. However, increasing positive or meaningful exposure with Black boys may ultimately lead a perceiver to challenge their stereotypic associations and individuate targets in interpersonal encounters.

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