I am a Person, But They Are a Condition:
The Role of Lay Beliefs on Language Preferences for Stigmatized Groups

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Abstract

How and why do we talk about people when they have stigmatized conditions? In this paper, we explore conditions under which people choose "person-first" language, widely recommended by policy makers as a means of reducing stigmatization (e.g., person experiencing homelessness), as opposed to "identity-first" language, which makes the condition the primary part of an individual's identity, thus potentially reinforcing stigmatization (e.g. homeless person.) We find that people always prefer to be referred to using person-first language, which states that the "have" a condition, but does not affix an identity label as such. On the other hand, people's tendency to use identity-first language when describing others depends on the degree to which they believe the condition is changeable. Specifically, archival data and online experiments suggest that if people believe that the condition is changeable, they are more likely to see people as responsible for having the condition, and thus lean toward identity-first language. Our results suggest that if person-first language is helpful in empowering stigmatized groups, it will be necessary to point out the multi-faceted nature of the systems that support the stigmatized condition, such that individuals are not saddled with the type of responsibility that hides their personhood behind their condition.

Introduction

There has been increased focus on the language used for groups with stigmatized conditions such as disabilities, mental health, diabetes, substance abuse, and homelessness. How people address these groups is important for how the stigmatized groups are viewed and supported. When referring to these stigmatized groups, people use what we refer to as *identity labels*: One places emphasis on the person (hereafter, person-first language, e.g., "person with obesity") and the other places emphasis on the "identity" (hereafter, identity-first language, e.g., "obese person). Some organizations advocate for the use of person-first language (e.g., AMA, 2007; Jensen et al., 2013; Dickinson et al., 2017). For example, a recent JAMA Surgery article argues that bariatric patients, in general, prefer for physicians to use person-first language when referring to their obesity (Pearl et al., 2018). However, little empirical work addresses *why* people choose particular identity labels. In this article, we address the underexplored question of how do people choose which of these identity labels to use for others and themselves? If guidelines are to be made, understanding the psychology behind perceptions and choices of identity labels is important.

Implicit theories are basic assumptions people hold about themselves and society. For example, people may believe that weight is a fixed identity and will not change over time. Implicit theories of change dealing with stigmatized conditions is one lens to better understand how people perceive and choose these kinds of identity labels. Recent work on implicit theories demonstrates its influence on self-regulation processes (e.g., Dweck & Leggett, 1988; Molden & Dweck, 2006; Burnette et al., 2013) and forming and accessing attitudes (Kwon and Nayakankuppam, 2015), fateful predictions and subsequent consumption (Kim et al., 2014). However, as of yet, implicit theories have not been linked to perception and choice of identity

labels for others with very little to no work addressing implicit theories of change stigmatized conditions such as alcoholism, substance use, and homelessness (Furnham and Lowick, 1984; Karafantis and Levy, 2004).

Our contribution is to explore the relationship between implicit theories of change about stigmatized conditions and the language used to refer to these groups. We argue that when people believe a stigmatized condition is changeable, people are more likely to use identity-first language when referring to stigmatized conditions. Our studies also show that implicit theories of change relate to the identity labels used for others, whereas for the self, we find that in general that people preferred person-first language instead of identity-first language.

Our results indicate that people's language choices for stigmatized groups are systematic with underlying beliefs about stigmatized conditions influencing the labels chosen for others. As society tries to determine how to appropriately address stigmatized groups, little is known about how characteristics of the condition influence language choices used for others. Our research makes contributions to implicit theory literature. It is the first to connect implicit theories on changeability to identity labels using both archival data from published scholarly writing as well as experiments including responses from actual stigmatized groups. We show that the preference for identity labels for stigmatized groups can be used to further stigmatize certain conditions through the use of identity-first language. This is important because as we provide guidelines and policy for use of identity labels in society, we must have a comprehensive understanding of how people are actually perceiving and preferring identity labels and under what specific conditions.

Person- versus Identity-First Language

At first glance, placing the person first in the description (e.g., person with obesity) or describing the identity first (e.g., obese person) may seem equal. Nonetheless, academic journals

and health organizations believe these identity labels make a difference for stigmatized groups, such as those dealing with obesity, drug addiction, and homelessness.

For example, most medical and academic organizations including the American Medical Association, and the Associated Press support the use of person-first language to describe disabilities and require authors to "put people first, not their disability," (American Medical Association, 2007; Associated Press, 2018). Advocates request the use of person-first language for academic, medical, and lay communities. Researchers argue that the person-first approach (e.g., person with obesity) presents conditions as just one part of the individual and distances the individual from their condition: a perspective that creates a more holistic view of the person being described (Wright, 1983). Person-first language is argued to be less negative as personhood is placed before the stigmatized trait (Blaska, 1993; England et al., 2012; Fernandes et al., 2009; Wright, 1983).

While the American Psychological Association (APA) had for a long time supported the use of person-first language, their recent stance reflects contemporary academic and disability community perspectives that support both types of identity labels (Dunn and Andrews, 2015). Current APA guidelines (2020) state that "both person-first and identity-first approaches to language are designed to respect disabled persons; both are fine choices overall." While there is an argument to balance the use of identity labels and debias our language, there is scant research that carefully examines how people perceive and hence choose these labels when referring to others and how implicit theories of change drive perception and choices of these identity labels.

Identity Labels and Stigmatizing Attitudes

Previous work suggests that identity-first language may increase stigma, with a focus on individual-trait differences. Halmari, (2011) found patterns of use of identity-first language for

"undesirable" social elements such as prisoners whereas person-first language was primarily used when referring to children or non-criminal adults. Further, Joseph et al. (2015) observed that using the schizophrenic noun labels on Twitter were associated with negative messages towards this group. In terms of identity labels, people with lower empathy and higher stigmatizing attitudes were more likely to choose noun labels for mental disorders (Krzyzanowski et al., 2019). Other work has shown that identity-first language may lead to more stigmatized attitudes towards groups dealing with mental disorders (Cuttler and Ryckman, 2019). Additionally, previous work suggests people with higher essentialist beliefs (beliefs that a condition has fixed, overarching personality or behavior) are more likely to use identity-first labels for mental disorders. People with high essentialist beliefs were more likely to endorse noun labels (i.e. identity-first language) for mental disorders (Howell and Wolgar, 2013; Howell et al., 2014).

Implicit Theories of Stigma

Implicit theories are basic beliefs that drive people's understanding of the world and others. Implicit theories inform both our own behavior as well as influence how we judge other's actions. In our context, implicit theories describe people's lay beliefs about the extent to which a condition can be changed. People's implicit theories of change about conditions can range from changeable (incremental theory) to fixed (entity theory). Implicit theories have been linked to self-regulatory processes (Burnette et al., 2013), weight management (Burnette, 2010; Burnette et al., 2017), and leadership (Burnette, Pollack, and Hoyt, 2010). From a weight management perspective, when people have incremental theory beliefs about their weight, this led to positive beliefs about losing weight, increased effortful, regulation, and decreased weight gain after diet setbacks (Burnette, 2010; Burnette and Finkel, 2012). Implicit theories about other's conditions

can also influence outcomes. For example, Rattan et al., find that when educators believe a student's math abilities are fixed, they will be more comforting, but also less motivating towards the student (2012).

While research has explored implicit theories of malleability as an individual difference measure, research has not examined how implicit theories about stigmatized conditions influence the identity labels used for others. From a social psychology perspective, believing that a stigmatized condition is changeable leads to the feeling that if change does not happen, the person is responsible for their condition, which leads to an increase in blame (Crandall and Reser, 2005; Burnette et al., 2017; Hoyt et al., 2017). Further, Haslam and Levy (2006) found that believing gay individuals' sexual preferences were not changeable, led to less prejudice against gay individuals due to people believing sexual identity is not an identity that can be chosen. Building upon this, we argue that incremental beliefs for a stigmatized condition lead to increased use of identity-first language as identity-first is associated with greater responsibility for and a desire to be sensitive towards the condition due to the emphasis of the identity instead of the person. In this paper, we will explore the importance of implicit theories of change on the use identity labels for stigmatized groups.

More formally, we suggest:

H_1: For conditions people believe as changeable, people are less likely to use person-first language.

H_2: People are more likely prefer person-first language for themselves, regardless of the condition.

Offset/Onset Responsibility

Attribution theory has examined the roles of both onset and offset responsibility. Onset responsibility is the perceived degree of attribution an individual has for their condition and

offset responsibility deals with beliefs around an individual's ability and willingness to manage their condition in the future. Previous research indicates that the degree of perceived controllability affects the blame attributed to stigmatized groups (Weiner, 1993, 1995, 1996). Stigmatized traits perceived as not within a person's control evoke more sympathetic emotions, less anger, and increased willingness to help (Menec & Perry, 1998; Rush, 1998; Weiner et al., 1988). Therefore, when a person's disorder is perceived as not within a person's control, people should be more likely to use person-first language (that is the nicer, less negative language). Both have previously been shown to relate to implicit theories (Burnette et al., 2017). Research also indicates that people want individuals to show their willingness to change their stigmatized conditions (Jallinoja et al., 2007; Puhl & Brownell, 2013). These previous findings suggest when a stigmatized individual indicates less willingness to change, people may use identity-first language to hold this person responsible for their condition.

When dealing with the relationship between implicit theories and attributional theory, Burnette et al. (2017) argue that incremental messages lead to stronger onset responsibility (which increases body shame) and offset efficacy attributions (decrease body shame) for weight. Nevertheless, previous work has not addressed the relationship between identity labels, implicit theories, and attributional theory. Particularly, how the relationship between implicit theories and identity labels may be mediated by onset or offset responsibility. We argue that the relationship between implicit theories and identity labels for stigmatized groups is mediated by perceptions of onset responsibility for the condition. Specifically, people ascribe more onset responsibility for conditions perceived as more changeable, and in turn, are more likely to use identity-first language for these conditions. On the other hand, when choosing labels for others, offset responsibility does not mediate the implicit theories and identity labels relationship. Offset

responsibility requires future action, which is not exactly foreseen when choosing present labels. Therefore, while onset responsibility can explain people's current feelings about stigmatized conditions, offset responsibility may not directly explain the current relationship and will not serve as a mediator of the effect.

Therefore, we propose the following hypothesis:

H_3: The relationship between changeability and language choices is mediated by onset responsibility.

Overview of Studies

Past literature has not addressed the role of implicit theories of change on identity labels used by others and themselves for stigmatized conditions. The pilot study shows that there are stigmatized conditions where people are more likely to use identity-first language instead of person-first language, even though they are aware that person-first language is the nicer language to use. Study 1 uses Google Scholar data and individual online responses to establish the effect that for conditions viewed as changeable, even in academic literature, people are more likely to use identity-first language. Study 2 uses online participants to show that the effect is mediated by onset responsibility. Study 3 manipulates onset responsibility to show that for conditions viewed as changeable, people are more likely to use person-first language when the condition is described as not within someone's control. Study 4a explores the role of perspective (self vs. other) in language preferences. Replicating our effect, when choosing labels for others, people are more likely to use identity-first language. However, when asked how people would like to be called for the same conditions, implicit theories of change do not impact language preferences. Study 4b replicates the effect in 4a with people who actually have stigmatized conditions (obesity and type 2 diabetes).

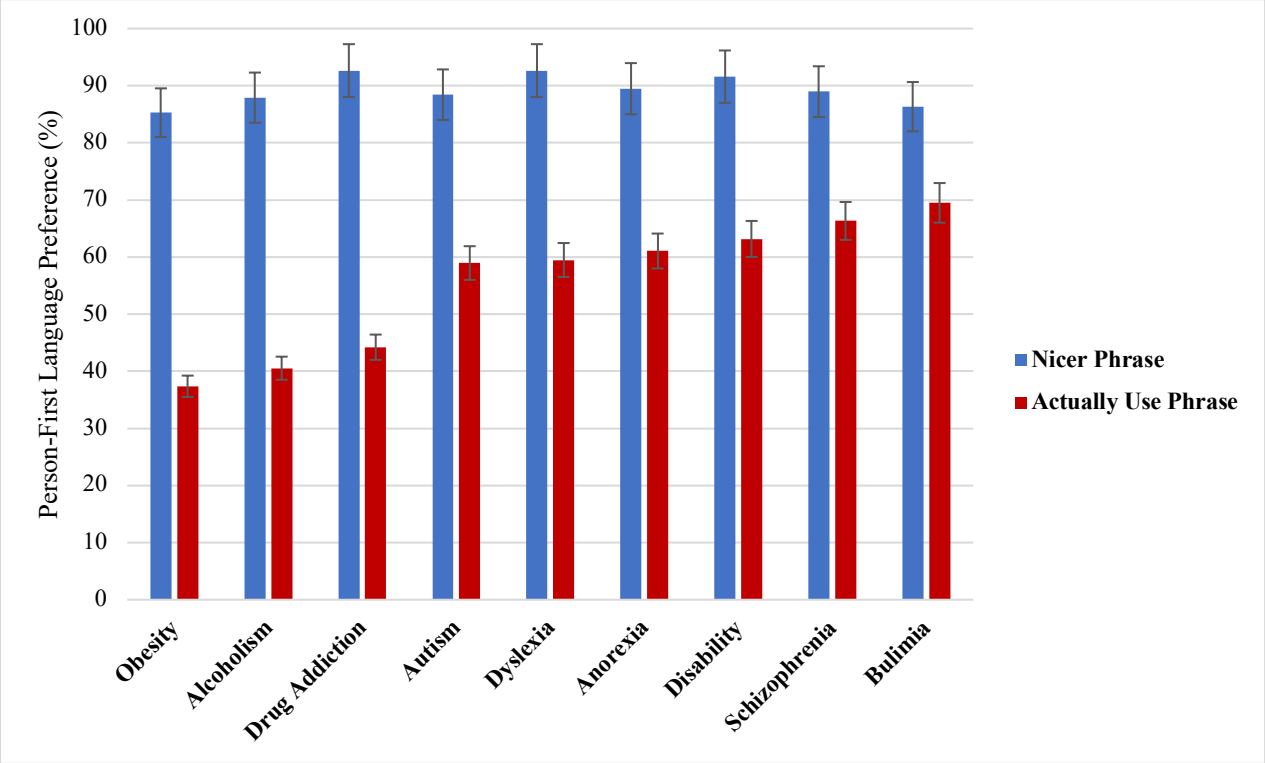
Pilot Study: Niceness versus Realness

The purpose of the pilot study is to establish that identity labels are systematically being used by used to describe others, even though people are aware that person-first language is the more sensitive language choice. Many arguments point to the importance of using less offensive phrasing in order to reduce stigmatization for these groups. However, it is unclear whether people are knowingly using identity labels and what these labels may convey about the people who receive these identity labels. This pilot study is to provide an important data point in the literature as to how people may choose an identity label for stigmatized groups.

One hundred and eighty-nine MTurk participants were asked what identity label, either person-first (e.g. person with obesity) or identity-first (e.g. obese person), they believed was *least offensive*, as well as which phrase they *preferred to use* for nine common diseases and disorders: obesity, alcohol addiction, drug addiction, anorexia, bulimia, dyslexia, schizophrenia, disability, and autism.

People were significantly more likely to choose person-first language as the *less offensive* term for all nine disorders (all percentages > 85%) (Figure 1). However, the phrase *actually used* varied based on the disorder (Fig. 1), with people generally more likely to use identity-first language for obesity (37.0%), alcoholism (40.7%), and drug addiction (44.4%). On the other hand, people preferred person-first language for the other disorders (Fig. 2) (Autism (59.3%); Dyslexia (59.8%); (60.8%); Disability (63.0%); Schizophrenia (66.7%); Bulimia (69.3%)). Therefore, we find that people believe person-first language is the more sensitive language to use for stigmatized conditions, but the actual identity label used depends on the condition. This pilot study establishes that identity-first language is the more offensive language choice. Next, we

want to explore using published scholarly writing patterns how identity labels are used for stigmatized groups and how it relates to implicit theories of change.



Error bars represent 5% of the value.

Figure 1. Person-First Language is Considered the more Sensitive Language Choice Niceness versus Reality in Identity Label Preferences.

Study 1: Google Scholar Exploration of Language Preferences

The purpose of Study 1 was to show the relationship implicit theories of change and identity labels used by examining the use of identity labels in academic literature. Study 1 focuses on the relationship between language used in academic articles and lay beliefs about stigmatized conditions. There has been interest in the use of person- vs. identity-first language in academic writing. A previous study has examined the identity labels used to describe children with disabilities using the prevalence of person- versus identity-first language in academic literature on Google Scholar (Gernsbacher, 2017). Building on this, we wanted to examine

language preferences for stigmatized conditions that relate to people in general and correlate the language preferences seen on Google Scholar with people's implicit theories of change of these conditions.

Participants

We recruited 510 preregistered online participants from Prolific (30 people per condition). Three participants failed the attention check, therefore, 507 participants were included in the final analysis. Every participant answered questions about one of the seventeen conditions.

Procedures and Materials

Study 1 was preregistered on AsPredicted.

Google Scholar.

Person- and identity-first language phrases were collected for 17 medically-related conditions were chosen (appendix). For person-first language phrases, both patients and people were included, as both are relevant for these conditions. A Google Scholar search was conducted for each phrase and the number of total articles that included each phrase was recorded. In order to focus on academic scholarly writing, patents and citations were excluded from the analysis. Analysis with citations and patents are included in the appendix.

Implicit Theories of Change.

Each participant answered a four-item implicit theories scale adapted from previous implicit theories scales (Dweck, 2000; Burnette, 2010). For example, for obesity, participants were asked to rate to what extent they agreed with the following statements: "Obesity is a permanent condition, and it can't be changed," "All people can change even their obesity."

"Once someone becomes obese, they cannot really change," and "Everyone, no matter who they are, can significantly change their obesity."

Results

For the 17 conditions, the percentage of articles that include person-first language was correlated with the implicit theories of malleability (α= .874) for each condition. Overall, the regression analysis suggests a significant relationship between use of person-first language and lay beliefs (R^2 = .369, $F(1,15) = 8.76$, p = .01). The results support our hypothesis that identity-first language is more likely to be used for conditions that are viewed as more changeable (β = .607, p = .01) (Figure 2).

Our results suggest that people in their academic writing are using identity labels in a systematic manner that relates to lay beliefs about the condition being described. Conditions that are perceived to be more changeable are more likely to be associated with identity-first language. This relationship suggests that when a stigmatized condition is viewed as changeable, people are less likely to use sensitive language.

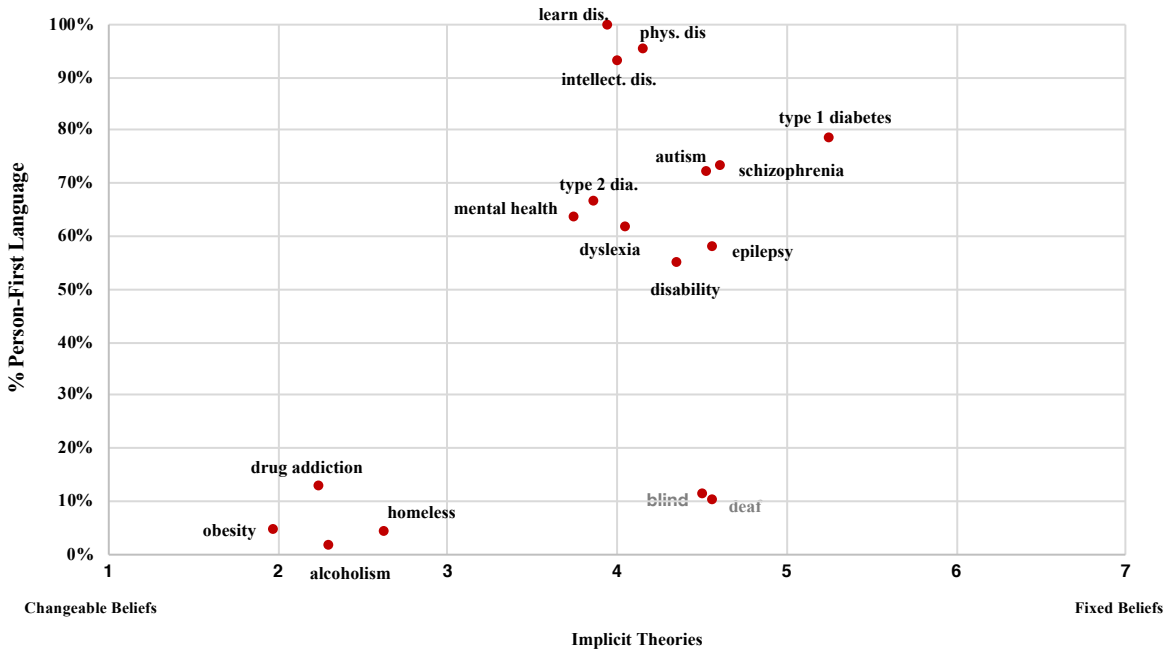


Figure 2. Conditions Viewed as Changeable are Less Likely to Contain Person-First Language in Academic Literature

Discussion

In Study 1, we provide initial evidence that implicit theories about stigmatized conditions are related to the identity labels towards others. For conditions viewed as changeable, there were more articles that contained identity-first language instead of person-first language. Academic literature has highlighted the use of identity labels and we show these labels relate to the important psychological construct of implicit theories. Study 1 provides compelling data in a real-world scenario of the relationship between implicit theories and identity labels.

Study 2: Role of Implicit Theories on Language Preferences

The purpose of Study 2 was to test the effect of implicit theories on identity labels used to describe others using an online sample. In Study 2, we look to replicate the effect in Study 1 using individual language preferences. We also wanted to better understand the mechanism of how implicit theories and language preferences are related. In terms of mediation, incremental beliefs have been linked to increased onset responsibility attributions (Burnette et al., 2017).

However, previous work has not related onset responsibility with implicit theories and identity labels. Additionally, desirability to appear sensitive towards certain groups may also drive language preferences given in our pretest individuals systematically made decisions about what language to use. Therefore, we also aim to show that onset responsibility and desire to be sensitive are mediators of the relationship between implicit theories and language preferences.

Participants

Study 2 was preregistered on AsPredicted. We recruited 520 preregistered participants on Prolific. Five participants failed the attention check and were excluded from the analysis.

Procedures and Materials

In a between-subject manipulation, there are 10 conditions (obesity, autism, homelessness, drug addiction, alcoholism, epilepsy, mental illness, disability, type 2 diabetes, and type 1 diabetes) that participants will be randomly chosen to answer questions for one of the 10. Participants were asked in random order about their implicit theories about the condition and their language preferences for this condition. On a scale from person-first to identity-first language (order randomized) (scale 1 to 5), people rate to what extent they would refer to someone by these language choices. Also, people will answer a four-item implicit theories scale (1, strongly disagrees, to 7, strongly agree). For example: “Obesity is a permanent condition, and it can’t be changed,” “All people can change even their obesity,” “Once someone becomes obese, they cannot really change,” and “Everyone, no matter who they are, can significantly change their obesity.”

Participants were then asked about onset and offset responsibility of these groups. For onset responsibility, they were asked for example, “How responsible is someone personally for their (*obesity*)? That is, how much do you feel that their (*obesity*) is a result of choices you make,

rather than something you can't control?" (Burnette et al., 2017). For offset responsibility, participants were asked for example, "The more effort someone puts into managing their (*obesity*), the more successful they will be at it. If someone is not good managing their (*obesity*), working hard won't make them good at it.

Results

Implicit Theories and Language Preferences Correlation.

A linear regression analysis suggests a significant relationship between implicit theories (α= .856) and language preferences (R^2 = .029, $F(1,513) = 15.06$, $p < .001$). The results support our hypothesis that identity-first language is more likely to be used for conditions that are viewed as more changeable (β = .039, $p < .001$) (Figure 3). Additionally, the main effect of onset responsibility was significant (β = -.310, SE = .049, $p < .001$), such that increased onset responsibility leads to increased preference of identity-first language. Offset responsibility (α= .799) also related to language preferences such that increased offset responsibility led to increased preference for identity-first language **(**β = -.048, SE = .022, $p < .03$**)**.

Mediation Analysis.

To investigate drivers of the effect, we conducted a multiple mediation analysis with both factors entered simultaneously as potential mediators using the bootstrap mediation technique (PROCESS Model 4) (Preacher and Hayes, 2008). Results revealed only a significant indirect effect through onset responsibility (indirect effect = -.302, SE= .061, 95% CI [0.014, 0.042]). Offset responsibility did not reach significance (indirect effect = .013, SE= .024, 95% CI [-0.007, 0.007]). Moreover, the direct effect or the relationship between implicit and language preferences when accounting for onset responsibility was no longer significant (direct effect = -.007, SE = .012, 95% CI [-0.007, 0.038]).

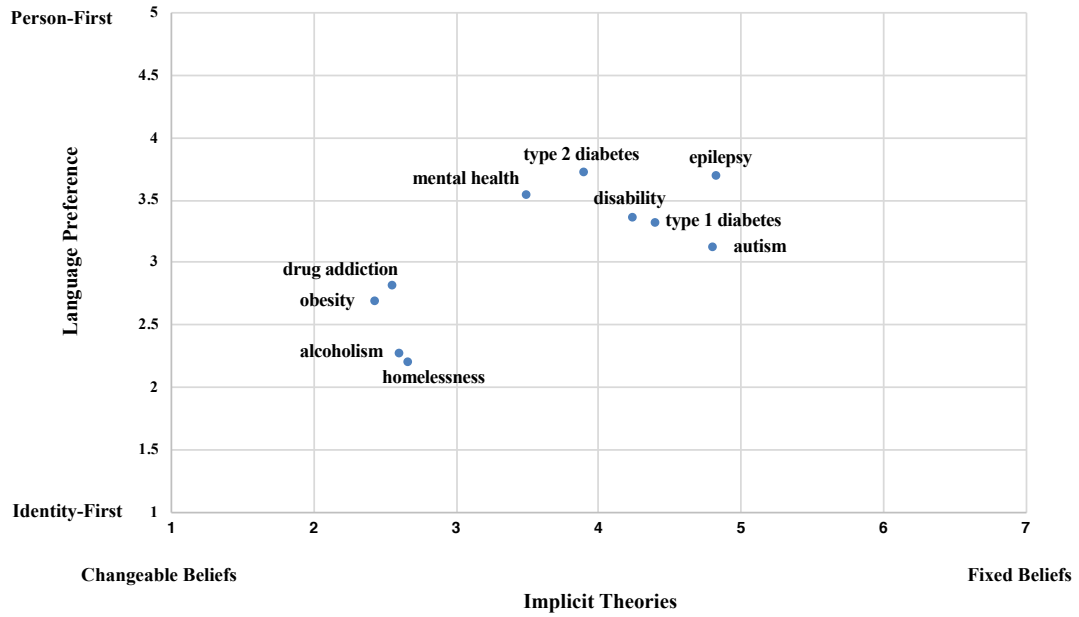


Figure 3. People Are More Likely to Use Identity-First language for Conditions Viewed as Changeable Relationship Between Implicit theories and Identity Label Preferences

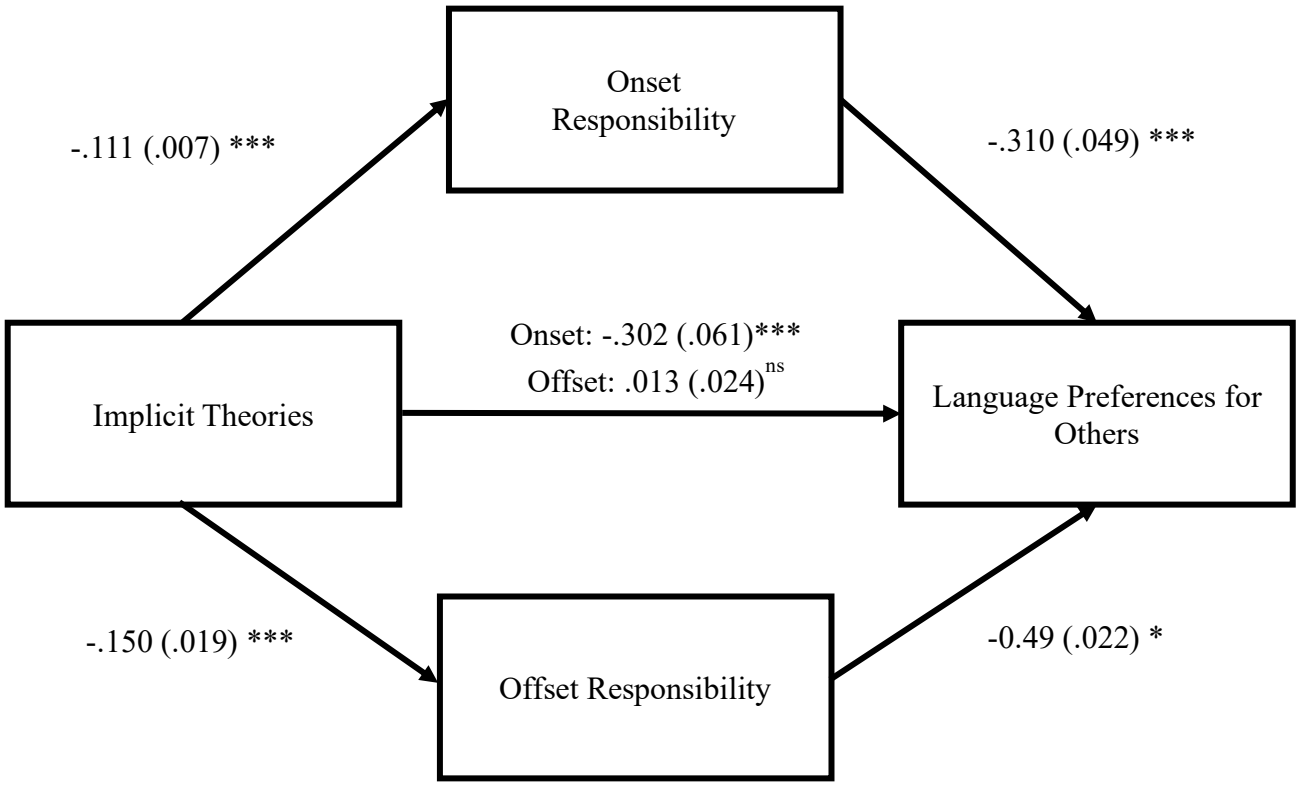


Figure 4. Relationship Between Implicit Theories and Identity Labels is Mediated by Onset Responsibility

Discussion

In Study 2, we ask participants their language preferences towards various stigmatized groups as well as their implicit theories for these conditions. Consistent with Study 1, for conditions viewed as changeable, people were more likely to use identity-first language. In addition, we show that perceptions of onset responsibility and a desire to be sensitive play an important role in mediating the relationship between identity labels and implicit theories.

Study 3: Role of Onset Responsibility and Implicit Theories on Language Preferences

The purpose of Study 3 was to explore how onset responsibility and implicit theories impact identity labels used by others. Study 3 explores the mediation of implicit theories and language preferences by manipulating onset responsibility. It remains unclear if when people have a desire to be sensitive, how that relates to implicit theories. Further, when people believe a condition is fixed, can the desire to be sensitive actually change?

Participants

We set the a priori goal of recruiting 600 U.S. adults to participate in an online study via MTurk. We ultimately ended up with 603 Mechanical Turk participants.

Procedures and Materials

In a 2 (Implicit Theories: Changeable vs. Fixed) within-subject x 3 (Onset Responsibility: Within Control vs. Not Within Control vs. No Information) between-subject, we asked participants in random order which identity label (person- versus identity-first language) they would choose for disorders that varied in perceptions of implicit theories. The six conditions used were: alcoholism, drug addiction, and obesity (changeable beliefs) and diabetes, disability, and epilepsy (fixed beliefs). We used disorders that can be caused by factors within and not within a person's control based on a pretest. Participants were told that an individual had each disorder and it was either within the person's control and worsened by factors dealing with the

person's lifestyle (within control), not within the person's control and worsened by the person's genetics (not within control), or no information was given and participants were only told that the individual has the disorder (no information). Participants were asked to choose which identity label (person-first versus identity-first) they would use to describe the individual for all six disorders.

Results

A mixed binary logit calculated comparing the frequency of person-first (versus identity-first) in the three manipulations (Low Controllability, High Controllability, and Not Described). As expected, a significant interaction was found for Implicit Theories x Onset Responsibility ($F(2, 3012) = 9.73$, $p < .001$) (Figure 5). For fixed belief conditions, there was no statistical difference between onset responsibility manipulations (Within Control 50.51% vs. Not Within Control 47.85%; $t(3012) = -.76$, $p = .445$; Within Control vs. No Info 46.63%; $t(3012) = 1.12$, $p = .264$; Not Within Control vs. No Info; $t(3012) = .35$, $p = .723$). For changeable belief conditions, there was a statistically significant difference (Within Control 27.9%; Not Within Control 38.8%; No Info 25.9%; $t(3012)=8.88$, $p < .001$).

Further analysis of the contrasts for changeable beliefs results in a significant difference between within control and not within control conditions ($t(3012) = 3.12$, $p = .002$) and not within control and no information ($t(3012) = 3.72$, $p < .001$). There was no statistical difference between within control and no information manipulations ($t(3012) = .58$, $p = .563$).

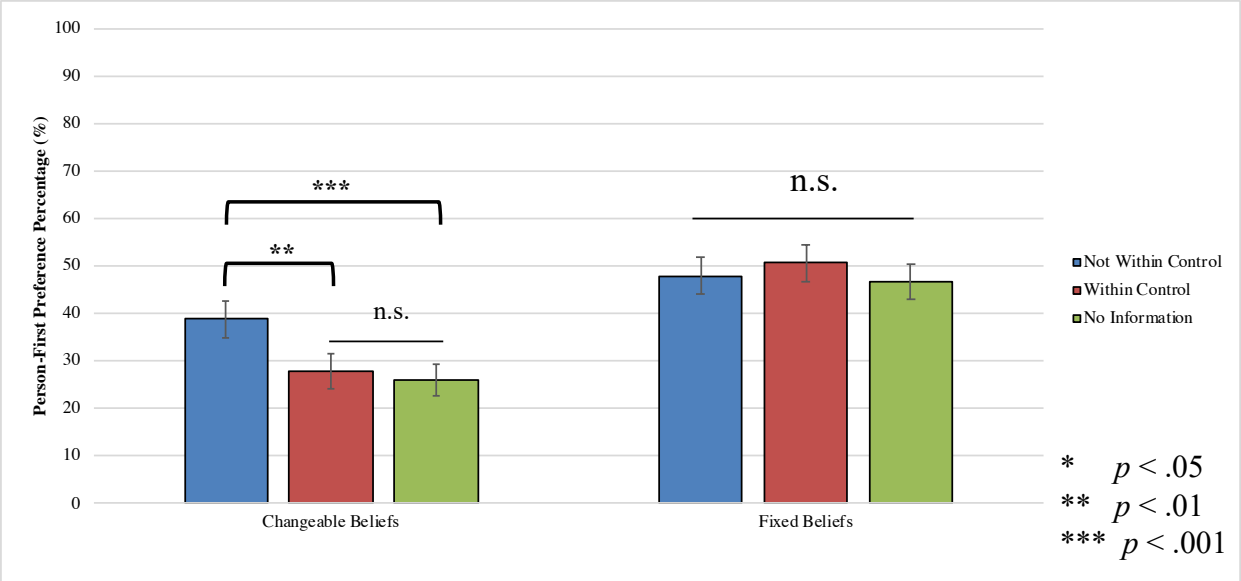


Figure 5. For Conditions Viewed as Changeable, People are More Likely to Use Person-First Language When One is Not Personally Responsible

Discussion

For Study 3, we manipulate onset responsibility in order to causally demonstrate how it relates to identity labels and implicit theories. Our findings suggest that for conditions viewed as changeable, people are more likely to use person-first language when the condition is described as not being within the person's control. On the other hand, for conditions viewed as fixed, there was no difference observed based on the onset responsibility description. This finding is consistent with the belief that when people desire to be sensitive towards others, they will use person-first language, and for conditions viewed as fixed, the desire to be nice overrides the cause of the condition.

Studies 4a and 4b: Self vs. Other Language Preference Asymmetry

The purpose of Studies 4a and 4b was to test the difference in identity labels used for others versus themselves as well as how it relates to implicit theories of the condition. Another important aspect of implicit theories and language preferences is the difference between identity

labels for the self versus others. While implicit theories may drive language preferences for others, it remains unknown if implicit theories influence language preferences for people with stigmatized conditions. Attribution theory deals with self-serving bias and states that people tend to relate successes to their own abilities but failure to externalities (e.g., Försterling & Harrow, 1988). Therefore, while people may use identity labels to convey implicit theories for others, they may not let implicit preferences drive identity labels for conditions they have themselves.

In Study 4a, we investigate the difference in perspective for several stigmatized conditions.

Participants

Study 4a was preregistered on AsPredicted. We recruited 606 preregistered participants on Prolific. Twelve participants failed the attention check and were excluded from the analysis.

Procedures and Materials

In a 2 (Perspective: Self vs. Other) x 10 (Condition: Alcoholism, Autism, Blindness, Deafness, Disability, Drug Addiction, Homelessness, Mental Illness, Obesity, and Type 2 Diabetes) between-subject manipulation, participants were told that to either imagine they had the following condition (self condition) or, in a replication of Study 1, what language they prefer to use to refer to someone with the following condition (other condition). They also answered questions about their implicit theories of the condition. The order of questions was randomized. Next, participants were asked about their perceptions of onset and offset responsibility.

Results

Self versus other interaction and main effects.

The regression analysis revealed a significant moderation of perspective on the relationship between implicit theories (α= .812) and language preferences (Perspective x Implicit

theories interaction: β = .185, SE = .069, t(1,590)= 2.69, p = .007) (Figure 6). Replicating the effect from studies 1 and 2, people are more likely to use identity first language for conditions viewed as changeable (β = .156, SE = .049, t(1,590)= 3.18 p = .002). On the other hand, when choosing language choices for themselves, there was no statistical difference in language preferences based on implicit theories (β = -.030, SE = .049, t(1,590)= -.610 p = .542).

The interaction between onset responsibility and perspective was marginally significant **(**β = -.165, SE = .087, t(1,590)= -1.90, p = .058). When examining the simple effect, replicating the effect from study 2, when people held strong onset responsibility attributions they were significantly more likely to use identity-first language when describing others (β = -.228, SE = .061, t(1,590)= -3.72, p < .001), but not for themselves (β = -.064, SE = .061, t(1,590)= -1.04, p < .25). The interaction between offset responsibility (α= .312) and perspective for language preferences was not significant (β = .006, SE = .113, t(1,590)= .055, p < .25).

Mediation analysis.

Replicating the mediation found in study 2 for language preferences used for others, we observe a significant indirect effect through onset responsibility (indirect effect = -.16, SE = .075, 95% CI [0.005, 0.135]. Offset responsibility did not reach significance (indirect effect = -.136, SE = .084, 95% CI [-0.042, 0.004]. The direct effect of the relationship between implicit theories and language preferences was no longer significant (direct effect = .105, SE = .061, 95% CI [-0.015, 0.224].

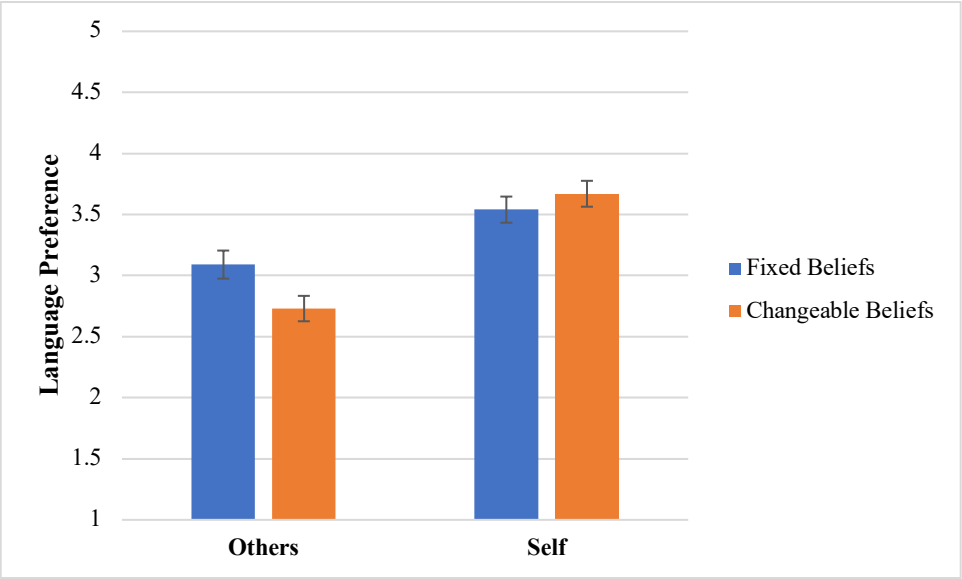


Figure 6. Implicit Theories and Identity Labels Are Related for Label Used for Other Not the Self

Study 4b: Self vs. Other Language Preference Asymmetry With Real Conditions

The purpose of Study 4b is to replicate the findings in 4a by using individuals with actual stigmatized conditions. In order to examine the self versus other asymmetry further, we recruited individuals who actually have the conditions in the self condition. Study 4a uses imaginary scenarios and we wanted to replicate this effect with people who are actually dealing with the conditions referenced.

Participants

Study 4b was preregistered on AsPredicted. We recruited 301 preregistered participants with either type 2 diabetes (fixed condition) and obesity (changeable condition). Four participants failed the attention check and were excluded from the analysis.

Procedures and Materials

In a 2 (Perspective: Self vs. Other) x 2 (Condition: Obesity vs. Type 2 Diabetes) between-subject manipulation, participants were asked what language they would prefer to be called by others (self condition) or what language they prefer to use to refer to someone with the following condition (other condition). They also answered questions about their implicit theories of the condition. The order of questions was in random order.

Results

Implicit Theories Manipulation Check.

Based on the implicit theories measures (α= .829), People with obesity believe their condition is more changeable (M= 2.47; SD= 1.09) than people with type 2 diabetes (M= 3.13; SD= 1.29; $t(295) = 4.78$, $p < .001$).

Self-versus other interaction and main effects.

The two-way ANOVA revealed a significant Perspective x Implicit Theories interaction: ($F(1, 293) = 5.47$, $p = .020$) (Figure 7). Consistent with Study 4a, people were more like more likely to use identity-first language for obesity (M = 3.04; SD = 1.44) than for type 2 diabetes (M = 3.72; SD = 1.13, $t(295) = 3.34$, $p = .001$). On the other hand, when choosing language choices for themselves, there was no statistical difference in language preferences between obesity (M = 3.67; SD = 1.19) and type 2 diabetes (M = 3.67; SD = 1.19, $t(295) = .022$, $p > .25$).

Discussion

Studies 4a and 4b support our effect seen in Studies 1, 2, and 3 that for conditions viewed as changeable, people were more likely to identity-first language when referring to others. Interestingly, Study 4b uses people with actual stigmatized condition and we still replicate the effect of implicit theories on language preferences for others. However, when the perspective

was for themselves, implicit theories did not predict their preferences for identity labels. People, in general, preferred person-first language to be used for themselves, which gives a useful insight into the language preferences others should be using for stigmatized groups.

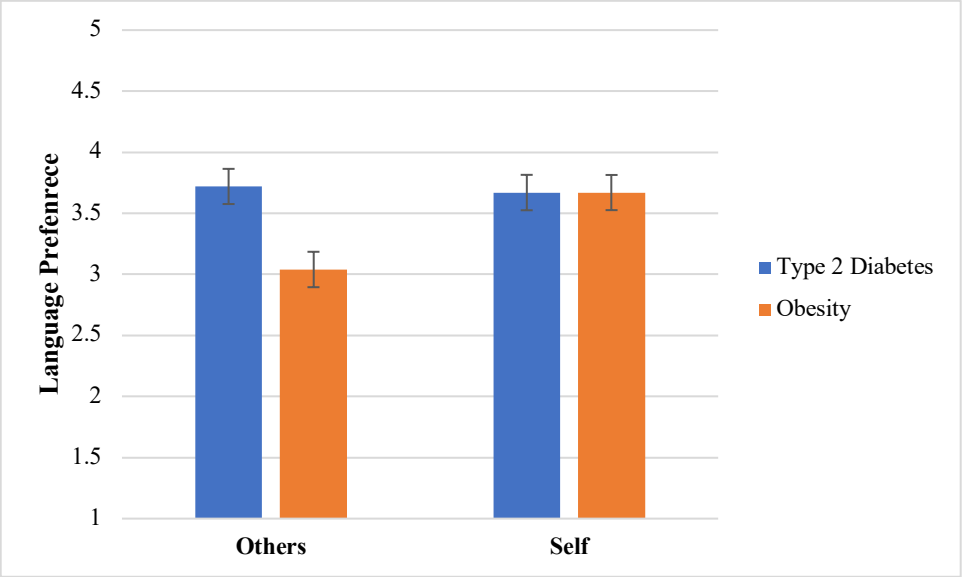


Figure 7. Self Versus Other Identity Label Preferences for People with Type 2 Diabetes and Obesity

General Discussion

Our results indicate that while people understand person-first language to the more sensitive identity label, they are more likely to use identity-first language for conditions such as obesity, alcoholism, and substance use disorder. Across four studies, we show that people are more likely to use identity-first language for conditions viewed as changeable when choosing identity label for others. We replicate this effect when asking people with actual stigmatized conditions---obesity and type 2 diabetes. Interestingly, when asked what identity labels people would prefer for their stigmatized conditions, in general, people preferred person-first language. Based on previous literature, there has been consensus on which identity labels stigmatized

groups may prefer person-first language overall. Therefore, while people should use preferred identity labels of the individual, person-first language may be more well-received when in doubt.

Implicit theories of malleability highlight the further stigmatization of stigmatized conditions using language. Current conversations and guidelines do not account for this discrepancy. As language choices are used differentially, additional resources may need to be placed on ensuring that people using identity labels that maintain the dignity of people with conditions viewed as changeable.

The use of identity-first language for conditions viewed as changeable may be incongruous with actual goals focused on change. In an additional study, for obesity, alcoholism, and substance use disorder. we asked participants which identity label they would choose for the following situations: conveying the changeability of their condition (changeability), holding someone accountable (accountability), giving someone ownership of their condition (ownership), and showing empathy to a person with the condition (empathy). For all three stigmatized conditions, participants preferred to use person-first language when expressing empathy and changeability of the condition (Empathy (71.1%): $\chi^2(1, N=252)=44.46$, $p < .001$; Changeability (61.1%): $\chi^2(1, N=252)=11.98$, $p < .001$). On the other hand, in terms of conveying accountability and ownership, the majority of participants preferred to use identity-first language (Accountability (70.4%): $\chi^2(1, N=252)=40.96$, $p < .001$; Ownership (59.7%): $\chi^2(1, N=252)=9.10$, $p = .003$). Therefore, while people are using identity-first language for conditions viewed as changeable, the changeability may not actually be conveyed and may not motivate real change for these stigmatized groups.

Future Directions

Further research should investigate how identity labels impact behavior towards stigmatized groups. Moreover, how does the use person- versus identity-first language influence how stigmatized groups are treated in society. Previous work has dealt with identity labels and negative attitudes and social distance (e.g., Kelly and Westerhoff, 2010; Goodyear et al., 2018; Ashford et al., 2018). Future work should explore how identity labels impact policy support involving stigmatized groups. Government agencies and organizations are increasingly trying to incorporate bias-free language, but the actual effects of these language choices are not clearly known. Future work should examine how identity labels impact the behavior of stigmatized groups, particularly for conditions viewed as changeable. For example, research should explore how certain identity labels may lead to increased motivation to engage in healthy behaviors. Also, future work should investigate how differences in goals when using identity labels may lead to positive outcomes. For example, in this paper, we focus on how language choices relate to stigma; however, when dealing with identity signaling, use of identity-first language may be more useful as this language choices highlights the importance of the identity. Therefore, the use of language choices for stigmatiazed are nuanced and straightforward, which provides for a rich area of future study. Overall, there are several opportunities to understand the language choices towards stigmatized groups and how we as a society can treat these groups with utmost dignity.

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Appendix. List of Identity Labels Used and Study 1 Background

Condition	Identity-First	Person-First	Studies Used
Obesity	obese person	person with obesity	Pilot Study; Study 2; 3; 4a; 4b
Alcoholism	alcoholic	person with an alcohol use disorder	Pilot Study; Study 2; 3; 4a
Substance Use Disorder	drug addict	person with a substance use disorder	Pilot Study; Study 2; 3; 4a
Autism	autistic person	person with autism	Pilot Study; Study 2; 4a
Dyslexia	dyslexic person	person with dyslexia	Pilot Study
Anorexia	anorexic person	person with anorexia	Pilot Study
Disability	disabled person	person with a disability	Pilot Study; Study 2; 3; 4a
Schizophrenia	schizophrenic	person with schizophrenia	Pilot Study
Bulimia	bulimic person	person with bulimia	Pilot Study
Homelessness	homeless person	person experiencing homelessness	Study 2; 4a
Blindness	blind person	person who is blind	Pilot Study; 4a
Deafness	deaf person	person who is deaf	Pilot Study; 4a
Mental Health	mentally ill person	person who is mentally ill	Study 2; 4a
Type 1 Diabetes	type 1 diabetic person	person with type 1 diabetes	Study 2; 3; 4a
Type 2 Diabetes	type 2 diabetic person	person with type 2 diabetes	Study 2; 3; 4a
Epilepsy	epileptic	person with epilepsy	Study 2; 3

Identity Labels Used for Study 1 Google Scholar Search

Conditions	Identity-First	Person-First
Dyslexia	dyslexic people	people with dyslexia
Disability	disabled people	people with disabilities
Autism	autistic people	people with autism
Epilepsy	epileptics (epileptic patients)	people with epilepsy
Type 1 Diabetes	type 1 diabetic people	people with type 1 diabetes
Type 2 Diabetes	type 2 diabetic people	people with type 2 diabetes
Schizophrenia	schizophrenics (schizophrenic patients)	people with schizophrenia
Drug Addiction	drug addicts (drug addicted patients)	people with substance use
Obesity	obese people	people with obesity
Alcoholism	alcoholics (alcoholic patients)	people with alcohol use
Mental Health	the mentally ill (mentally ill patients)	people with mental
Learning Disability	learning disabled people (learning disabled patients)	people with learning disabilities
Intellectual Disability	intellectually disabled people (intellectually disabled patients)	people with intellectual disabilities
Deaf	deaf people (deaf patients)	people who are deaf
Blind	blind people (blind patients)-	people who are blind
Homelessness	homeless people	people experiencing homelessness
Physical Disability	physically disabled people	people with physical disabilities

Study 1: Google Scholar Study Background

Condition	Person-First Language Usage	(# Identity-First Articles/ # Total Articles in Condition) * 100	(# Person-First Articles/ # Total Articles in Condition) * 100
Alcoholism	1.3%	37.5%	0.5%
Autism	72.0%	1.6%	4.2%
Blind	11.3%	1.8%	0.2%
Deaf	10.1%	5.3%	0.6%
Disability	54.8%	13.1%	15.9%
Drug	12.5%	13.6%	2.0%
Dyslexia	61.5%	1.2%	1.9%
Epilepsy	58.0%	9.0%	12.4%
Homelessness	4.1%	35.1%	1.5%
Intellectual Disability	92.8%	0.7%	8.5%
Learning Disability	99.4%	0.4%	72.1%
Mental Health	63.3%	6.6%	11.4%
Obesity	4.4%	35.9%	1.7%
Physical Disability	95.1%	2.0%	38.8%
Schizophrenia	73.2%	12.8%	34.8%
Type 1 Diabetes	78.4%	6.8%	24.7%
Type 2 Diabetes	66.3%	35.0%	68.8%

Condition	# Articles in Subject	# Identity-First Articles (People)	# Person-First Articles (people)	# Identity-First Articles (patients)	# Person-First Articles (patients)
Alcoholism	968000	298000	981	64700	3690
Autism	1280000	8840	37300	11900	16000
Blind	4040000	62700	8860	9900	353
Deaf	1080000	48400	5980	8550	400
Disability	2750000	331000	431000	28800	5500
Drug	669000	89800	3250	1430	9800
Dyslexia	266000	1500	4520	1630	473
Epilepsy	1630000	54700	23800	91700	178000
Homelessness	340000	114000	4940	5310	141
Intellectual Disability	448000	2340	36000	625	2090
Learning Disability	482000	1720	346000	351	1680
Mental Health	2750000	154000	247000	28100	67100
Obesity	2750000	57400	6550	930000	39300
Physical Disability	470000	8380	181000	1020	1230
Schizophrenia	1970000	1240	69700	250000	615000

Type 1 Diabetes	1170000	140	17500	79200	271000
Type 2 Diabetes	1430000	350	89100	500000	895000