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# I am Not a White Man in a Labcoat: The Normalization of Identity in Academic Writing

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*There is this assumed identity that we come across [in academic writing] if you don't include your own, which is typically the stereotype in the field. This is not only untrue but also perpetuates the idea that this is the dominant identity in the field and the only valued identity.*

– Emily Mehlman

I am Not a White Man in a Labcoat: The Normalization of Identity in Academic Writing

1. Introduction

One deep-seated belief in writing, especially writing instruction, is that there is no place for identity and personal pronouns in pieces that are professional and academic. Students are taught this principle as early as elementary school. However, identity can be used in academic writing as a tool to emphasize credibility on certain topics and can shape writing, whether intentionally or not. Anyone's writing can benefit from a bit of the author's perspective, but there is an even deeper need for a diverse range of identities in academia. I intend to discuss how 'objective' papers are often read as if written by the stereotypical member of the field, which perpetuates these stereotypes further. This intersects with gender issues quite clearly in areas like Science, Technology, Engineering, and Mathematics (STEM) where the 'default figure' is usually male. As a rising academic, I hold a specific stake in the matter – even more so when it comes to gender issues, as I identify as non-binary and most initially perceive me as a woman. Though situations have improved greatly, it is still apparent that women and other less conventional gender identities do not have enough voice and presence in STEM. I believe that current academics, as well as the instructors of the next generation, have an opportunity to change how identity is used and viewed in academic writing. These motivators drive me to ask

the question: how might the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

2.  Assumed Identity

First, an important facet of this topic is the role that "assumed identity" plays. The fact of the matter is that writing without identity does not entirely exist. Instead, it is more dependent on how explicitly one makes their identity known. Bronwyn T. Williams, a literacy department editor and college professor, discusses this idea in his article "Pay attention to the man behind the curtain: The importance of identity in academic writing". In this piece, he opens by discussing the distinct separation between academic and personal writing that most still uphold. By arguing for their side, he points out the flaws with this viewpoint then counters. He argues, "identity is *always* present in writing," and that, "…without explicit descriptions about the identity of the author, we often move to our cultural default setting of whom we assume the author to be," (Williams 712). This idea is the one that inspired this paper, as the idea of such a "cultural default setting" stood out as an issue. At least in Western cultures, the stereotypical scientist is a "white man in a labcoat" (Williams 712; Preece 11). Rebecca Tan, the former editor-in-chief of Asian Scientist Magazine, hails from Singapore but also echoes an all-too-similar message of the "stock photo scientist," who is quite frequently male. While conditions are certainly changing for the better with several movements initiated to encourage women in STEM – even the stock photo situation appears to be improving from a quick Google search – academic writing seems to stay the same. Students especially feel the need to write papers to be objective in order to be taken seriously as academics. Without explicit instruction and practice otherwise, this continues throughout our writing careers and thus we (often unknowingly) perpetuate our field's stereotypes through our reading and writing. Williams refers to the use of

the "detached impersonal position" as performing that identity (714). I feel that this is a fitting description – when we write 'like a scientist,' we are not writing like ourselves. We are trying to write as that archetypal scientist, the white man in the lab coat, performing his identity as our own. If it becomes more accepted to use one's own identity in academic writing, whether this comes about through changes in instruction or more frequent publications where identity is used, it could get easier for us to write as we are. No matter how far our identities differ from the stereotypes, we will no longer need to perform as much. Women and other minority genders might be able to feel more like themselves and be seen as such, thus normalizing the existence of the diverse range of people that can and should be in STEM.

3. Uses of Identity

Identity has further uses in writing than simply who the author is, though. If used correctly, it can make one's arguments more robust and actually improve the objectiveness of a paper. Kate McKinney Maddalena, an assistant professor of English and professional writing at the University of North Carolina Wilmington, uses her expertise to discuss this idea. In an essay titled "'I need you to say 'I'': Why First Person is Important in College Writing," she goes over the use of "I-less" prose then points out its flaws. She argues that, compared to traditional objectivity, "a much more sophisticated claim includes your perspective and implies the effect it may have on your stance," (Maddalena 182). It might make sense to simplify writing at first, leaving such complex ideas out, but by the time we are in higher level classes we should know that identity is a valid tool.

Identity is not a tool exclusively for improving sophisticated writing – even struggling students may be able to use it to help develop their writing skills and solidify their position as an academic. Those who have difficulties with academic writing might find that coming to terms

with their identity as an academic helps them. For instance, Jenny Cameron, Karen Nairn, and Jane Higgins discussed how they used the principle of interpellation in writing workshops as part of their paper, "Demystifying Academic Writing: Reflections on Emotions, Know-How and Academic Identity." The authors, Australian associate professors and a research fellow from New Zealand, used their knowledge to provide writing workshops then gathered research from what they observed at these sessions. Interpellation, as described in the paper, is a theory from philosopher Louis Althusser that suggests that someone develops an identity through being described by certain terms then accepting these descriptors themselves. They found that such, "[s]trategies that position novices as academic writers can…help beginning academic writers develop a stronger sense of their legitimate voice and contribution," (Cameron et al. 280). If this is true, I feel that telling students that their identity does not have a place in their professional writing might lead them to feel as though they cannot contribute to more advanced areas of study. Therefore, normalizing the use of identity in students' writing might lead to higher self-efficacy and thus higher achievement in STEM.

4.  Difficulty with Identity

However, despite all the benefits, many students have difficulty using identity in their writing – even once they are taught that it is okay. Ken Hyland, also an associate professor of English, discusses how first-person pronouns and more generally the use of identity allows for emphasis and ownership of ones' ideas, as well as a sense of authority and commitment to the topic. He studied a number of his students at The City University of Hong Kong, trying to explain their relationship with authorial identity in order to benefit other teachers. In his research, his students were reluctant to adopt personal pronouns, which he attributed to the fact that English was their second language. However, in talking to my classmates, I have discovered that

the majority of us are not comfortable with such practices either, even though most of us are primarily English speakers. Therefore, I believe that it has more to do with the way the majority of us are taught to write. As Williams puts it, "…academic writing is discussed as being a definable, unchangeable, and impersonal skill that students should be taught," (712). This is reinforced by the standardized testing practices that have become common worldwide. Then, this early feedback might suggest to minority students that the culture around the field they are trying to write into is definable and unchangeable as well. I believe that students whose identity is further from the identity they need to perform would be more likely to develop negative feelings towards writing, and thus less likely to commit to those technical fields. Thus, women might be more affected than men, for example, as their identity is relatively further from that archetypal male scientist they are trying to imitate. In this sense, the same objective writing that is designed to make a level playing field might instead be putting women and other non-male gender identities at a disadvantage.

5.  Gender Disparities in STEM

Some still argue that there is no gender gap in STEM, or if it was there, it has since been closed. However, recent evidence suggests otherwise. According to the United States Census Bureau, in 2019 women made up approximately 48% of the workforce but only 27% of STEM fields (Martinez & Christnacht). (It might be noted that those outside of the gender binary are not accounted for at all, possibly due to how significant of a minority they constitute.) Furthermore, that 27% reports more workplace discrimination based on their gender. Pew Research Center surveyed a sample of U.S. adults in the summer of 2017. In their results, 50% of women in STEM jobs reported to have experienced gender-related discrimination, compared to 41% of women in other careers and 19% of men in similar jobs. The issues they faced included earning

less than men in the same jobs, being treated as incompetent, and various microaggressions from coworkers (Funk & Parker). In the classroom, female students experience similar situations. Siân Preece, a senior lecturer of applied linguistics in the United Kingdom, writes briefly about this phenomenon in her paper "Identity work in the academic writing classroom: Where gender meets social class." As the title suggests, she observed group interactions in her undergraduate classroom to see how linguistic minorities, social class, and gender roles have an effect on behavior and attitudes toward writing. In one particular case of a group composed of three men and one woman, it was clearly observed that the woman became "…the butt of [their] jokes…" despite simply trying to stay on task. Preece attributed this incident to be due to the young men feeling insecure about their difficulties with academic discourse. Due to their perceived inability to perform an academic identity, they overcompensate in the opposite direction and fall back on "laddish" behavior (Preece). This makes sense and supports my thoughts that having one objective academic identity might be harmful to learners. However, Preece does not go into much discussion on how such interactions might affect the women involved, instead focusing her paper more on masculine identity. While I agree with the necessity to investigate all minorities and assist those who might be struggling, for the uses of this paper I am more interested in the way non-male students and workers are influenced when they are actively ousted from academia, even as a joke. To return to the Pew Research statistics, 39% of the participants reported that "discrimination in recruitment, hiring, [and] promotion is a major factor as to why there are relatively few women in STEM jobs (Funk & Parker).

Although certainly not all of this discrimination comes from academic discourse, I feel that the role identity plays cannot be ignored. As classmate Dara Prak, a Computer Science major, said of academic writing in an interview, "If you know the person writing isn't the default

you usually think of, then it gets rid of the stereotype that others can't have good ideas in your field, and it can encourage people with similar identities to the author that they can do great things in that field and be taken seriously," (Prak). Even when women do make strides in their fields, it might be hidden behind the objective lens. Further, their accomplishments may be diminished, as anything they do might still need to be accompanied with an acceptance that they, too, are capable. Emily Mehlman, who is a Program Manager at the Center for Advancing STEM Teaching, Learning, and Evaluation (CASTLE) at the Rochester Institute of Technology, discussed this issue when I reached out to ask questions about this project. As she put it, "It could be more productive to have ongoing diversity instead of paradigm shifts, which can be kind of rare and a little jarring for a field," (Mehlman). Using more identity in writing can promote such diversity on a more consistent basis, rather than a field's minorities only being noticed when they make great accomplishments. It is by no means a be-all end-all solution, but a range of diverse identities in the academic discourse of STEM fields might help to diversify their cultures as well.

6. Personal Stake

This paper has a deeper importance to me for several reasons. Of course, I would like to see improvement in gender discrimination as I enter a very male-dominated field. However, I was able to gain insight on myself just from writing this paper, which shows how powerful identity in writing can really be. The quote used as the epigraph for this paper also came from my aforementioned interview with Emily Mehlman. Initially, I reached out to talk with her because of her program's relevance to my paper topic. I was pleasantly surprised with how well she understood my topic (at the time, I was not even entirely sure what I was trying to say), as well as the value I found in our discussion. It was both important to my research and gave me

further perspective on my topic as well – as a young academic, it is so crucial to feel heard and seen. Emily Mehlman, my professor, Andrew Perry, and others I reached out to provided this to me through encouragement and simply just telling me that my ideas were meaningful. I feel that other students can achieve similar benefits from their writing if they write about topics that are relevant to themselves and their identities. I definitely do not think I would have gained such perspective with a vague, meaningless topic, like the ones I was frequently assigned in high school. Thus, my personal belief of the value that identity can have in writing is even more firmly solidified.

7. Conclusion

To answer my initial question, I certainly feel that the normalization of diverse identities in academic writing could reduce gender disparities in STEM fields in a few ways: first, it has the potential to reduce the male-dominated stereotypes that are associated with them. Additionally, it can make incoming academics more confident as they develop as writers and help them feel as though they belong in the field they are interested in. Their writing might become even stronger, helping them succeed in their career and further reducing stereotypes. Making this change becomes especially significant when we consider the statistics around women in STEM. At this point, men and women should be at an equal playing field with minimal discrimination in the workplace, but this is simply not the case. Thus, something needs to be done, and I believe that identity in writing might just be as good a place as any to start. However, I cannot help but acknowledge that this topic is much bigger than myself. It will certainly require more research and discussion in the future in order to get a more complete picture. In the meantime, I hope to see continuous change in the proportions of men and women

in STEM and plan to do what I can to involve myself in my writing. After all, I am not a white

man in a lab coat, so why should I pretend to be one?

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First Paragraph Attempt #1

When I asked a room full of my classmates if any of them felt comfortable using their identity in their writing, not a single one confidently raised their hand. I can say I agree. Of course, this does not mean anything for those who do not understand the power identity can have in one's writing. While I think anyone's writing can benefit from a bit of the author's perspective, I look to emphasize a diverse range of identities in academia. This goal might have the potential to narrow some of the gaps that exist between the long-held majorities and the slowly growing minorities, which are especially prevalent in the fields of Science, Technology, Engineering, and Math (STEM). To ensure that this paper is relevant to myself, I intend to focus on the topic of gender disparities, which is something I am quite familiar with as a non-binary person, assigned female at birth. These motivators drive me to ask the question: how can the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

First Paragraph Attempt #2

Isolated. Passed over. Harassed. Women and those with other non-male gender identities are statistically more likely to be treated in these ways, especially if they are learning or working in more technical areas of study like Science, Technology, Engineering, and Mathematics (STEM). While I believe anyone's writing can benefit from a bit of the author's perspective, there is a deeper need for a diverse range of identities in academia. The achievement of this goal might have the potential to narrow some of the gaps that exist in every academic field, between the long-held majorities and the slowly growing minorities. Such gaps are especially prevalent in more technical areas of study like Science, Technology, Engineering, and Mathematics (STEM). This discussion might be especially useful for academics and their instructors, both new and established, but identity in writing is a problem with roots as far back as elementary school. I hold a specific stake in this topic when it comes to gender issues, as I identify as non-binary and most initially perceive me as a woman. Though situations have improved greatly, it is still apparent, that women and other less conventional gender identities do not have enough voice and presence in STEM. These motivators drive me to ask the question: how can the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

First Paragraph Attempt #3

One deep-seated belief in writing, especially writing instruction, is that there is no place for identity and personal pronouns in professional academic writing. Students are taught this principle as early as elementary school. While I believe anyone's writing can benefit from a bit of the author's perspective, there is a deeper need for a diverse range of identities in academia. Achievement of this goal has the potential to narrow some of the gaps that exist in every academic field, between the long-held majorities and the slowly growing minorities, which are especially prevalent in more technical fields such as Science, Technology, Engineering, and Math (STEM). I intend to discuss how "objective" papers are often read as if written by the

stereotypical member of the field, which makes the cultures around such areas of study seem even more male-dominated than they already are. This further adds to the need to blend in, creating a cycle. This issue might be especially useful for academics and their instructors, both new and established, but identity in writing is a problem with roots as far back as elementary school. As a rising academic, I hold a specific stake in the matter – even more so when it comes to gender issues, as I identify as non-binary and most initially perceive me as a woman. Though situations have improved greatly, it is still apparent that women and other less conventional gender identities do not have enough voice and presence in STEM. These motivators drive me to ask the question: how might the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

Other more subtle variations on these paragraphs certainly exist, but they seem to be lost to time.

Rough Draft #1

Raina Freeman

Professor Perry

FYW: Writing Seminar

13 April 2022

> *There is this assumed identity that we come across [in academic writing] if you don't include your own, which is typically the stereotype in the field. This is not only untrue but also perpetuates the idea that this is the dominant identity in the field and the only valued identity.*
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> – Emily Mehlman

I am Not a White Man in a Labcoat: The Normalization of Identity in Academic Writing

1.  Introduction

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Though situations have improved greatly, it is still apparent that women and other less conventional gender identities do not have enough voice and presence in STEM. I believe that current academics, as well as the instructors of the next generation, have an opportunity to change how identity is used and viewed in academic writing. These motivators drive me to ask the question: how might the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

2.  Assumed Identity

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academic writing seems to stay the same. Students especially feel the need to write papers to be objective in order to be taken seriously as academics. Without explicit instruction and practice otherwise, this continues throughout our writing careers and thus we (often unknowingly) perpetuate our field's stereotypes through our reading and writing. Williams refers to the use of the "detached impersonal position" as performing that identity (714). I feel that this is a fitting description – when we write 'like a scientist', we are not writing like ourselves. We are trying to write as that archetypal scientist, the white man in the lab coat, performing his identity as our own. If it becomes more accepted to use one's own identity in academic writing, whether this comes about through changes in instruction or more frequent publications where identity is used, it could get easier for us to write as we are. No matter how far our identities differ from the stereotypes, we will no longer need to perform as much. Women and other minority genders might be able to feel more like themselves and be seen as such, thus normalizing the existence of the diverse range of people that can and should be in STEM.

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English was their second language. However, in talking to my classmates, I have discovered that the majority of us are not comfortable with such practices either, even though most of us are primarily English speakers. Therefore, I believe that it has more to do with the way the majority of us are taught to write. As Williams puts it, "…academic writing is discussed as being a definable, unchangeable, and impersonal skill that students should be taught," (712). This is reinforced by the standardized testing practices that have become common worldwide. Then, this early feedback might suggest to minority students that the culture around the field they are trying to write into is definable and unchangeable as well. I believe that students whose identity is further from the identity they need to perform would be more likely to develop negative feelings towards writing, and thus less likely to commit to those technical fields. Thus, women might be more affected than men, for example, as their identity is relatively further from that archetypal male scientist they are trying to imitate. In this sense, the same objective writing that is designed to make a level playing field might instead be putting women and other non-male gender identities at a disadvantage.

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This paper has a deeper importance to me for several reasons. Of course, I would like to see improvement in gender discrimination as I enter a very male-dominated field. However, I was able to gain insight on myself just from writing this paper, which shows how powerful identity in writing can really be. The quote used as the epigraph for this paper also came from my aforementioned interview with Emily Mehlman. Initially, I reached out to talk with her because of her program's relevance to my paper topic. I was pleasantly surprised with how well she understood my topic (at the time, I was not even entirely sure what I was trying to say), as

well as the value I found in our discussion. It was both important to my research and gave me further perspective on my topic as well – as a young academic, it is so crucial to feel heard and seen. Emily Mehlman, my professor, Andrew Perry, and others I reached out to provided this to me through encouragement and simply just telling me that my ideas were meaningful. I feel that other students can achieve similar benefits from their writing if they write about topics that are relevant to themselves and their identities. I definitely do not think I would have gained such perspective with a vague, meaningless topic, like the ones I was frequently assigned in high school. Thus, my personal belief of the value that identity can have in writing is even more firmly solidified.

7. Conclusion

To answer my initial question, I certainly feel that the normalization of diverse identities in academic writing could reduce gender disparities in STEM fields in a few ways: first, it has the potential to reduce the male-dominated stereotypes that are associated with them. Additionally, it can make incoming academics more confident as they develop as writers and help them feel as though they belong in the field they are interested in. Their writing might become even stronger, helping them succeed in their career and further reducing stereotypes. Making this change becomes especially significant when we consider the statistics around women in STEM. At this point, men and women should be at an equal playing field with minimal discrimination in the workplace, but this is simply not the case. Thus, something needs to be done, and I believe that identity in writing might just be as good a place as any to start. However, I cannot help but acknowledge that this topic is much bigger than myself. It will certainly require more research and discussion in the future in order to get a more complete picture. In the meantime, I hope to see continuous change in the proportions of men and women

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> *There is this assumed identity that we come across [in academic writing] if you don't include your own, which is typically the stereotype in the field. This is not only untrue but also perpetuates the idea that this is the dominant identity in the field and the only valued identity.*
>
> – Emily Mehlman

### I am Not a White Man in a Labcoat: The Normalization of Identity in Academic Writing

1. Introduction

One deep-seated belief in writing, especially writing instruction, is that there is no place for identity and personal pronouns in pieces that are professional and academic. Students are taught this principle as early as elementary school. However, identity can be used in academic writing as a tool to emphasize credibility on certain topics and can shape writing, whether intentionally or not. Anyone's writing can benefit from a bit of the author's perspective, but there is an even deeper need for a diverse range of identities in academia. I intend to discuss how 'objective' papers are often read as if written by the stereotypical member of the field, which perpetuates these stereotypes further. This intersects with gender issues quite clearly in areas like Science, Technology, Engineering, and Mathematics (STEM) where the 'default figure' is usually male. As a rising academic, I hold a specific stake in the matter – even more so when it comes to gender issues, as I identify as non-binary and most initially perceive me as a woman. Though situations have improved greatly, it is still apparent that women and other less conventional gender identities do not have enough voice and presence in STEM. I believe that current academics, as well as the instructors of the next generation, have an opportunity to change how identity is used and viewed in academic writing. These motivators drive me to ask

the question: how might the normalization of diverse identities in academic writing improve gender disparities in STEM fields?

2. Assumed Identity

First, an important facet of this topic is the role that "assumed identity" plays. The fact of the matter is that writing without identity does not entirely exist. Instead, it is more dependent on how explicitly one makes their identity known. Bronwyn T. Williams, a literacy department editor and college professor, discusses this idea in his article "Pay attention to the man behind the curtain: The importance of identity in academic writing". In this piece, he opens by discussing the distinct separation between academic and personal writing that most still uphold. By arguing for their side, he points out the flaws with this viewpoint then counters. He argues, "…identity is *always* present in writing," and that, "…without explicit descriptions about the identity of the author, we often move to our cultural default setting of whom we assume the author to be," (Williams 712). This idea is the one that inspired this paper, as the idea of such a "cultural default setting" stood out as an issue. At least in Western cultures, the stereotypical scientist is a "white man in a labcoat" (Williams 712; Preece 11). Rebecca Tan, the former editor-in-chief of Asian Scientist Magazine, hails from Singapore but also echoes an all-too-similar message of the "stock photo scientist", who is quite frequently male. While conditions are certainly changing for the better with several movements initiated to encourage women in STEM – even the stock photo situation appears to be improving from a quick Google search – academic writing seems to stay the same. Students especially feel the need to write papers to be objective in order to be taken seriously as academics. Without explicit instruction and practice otherwise, this continues throughout our writing careers and thus we (often unknowingly) perpetuate our field's stereotypes through our reading and writing. Williams refers to the use of

the "detached impersonal position" as performing that identity (714). I feel that this is a fitting description – when we write 'like a scientist', we are not writing like ourselves. We are trying to write as that archetypal scientist, the white man in the lab coat, performing his identity as our own. If it becomes more accepted to use one's own identity in academic writing, whether this comes about through changes in instruction or more frequent publications where identity is used, it could get easier for us to write as we are. No matter how far our identities differ from the stereotypes, we will no longer need to perform as much. Women and other minority genders might be able to feel more like themselves and be seen as such, thus normalizing the existence of the diverse range of people that can and should be in STEM.

3.  Uses of Identity

Identity has further uses in writing than simply who the author is, though. If used correctly, it can make one's arguments more robust and actually improve the objectiveness of a paper. Kate McKinney Maddalena, an assistant professor of English and professional writing at the University of North Carolina Wilmington, uses her expertise to discuss this idea. In an essay titled "'I need you to say 'I'': Why First Person is Important in College Writing", she goes over the use of "I-less" prose then points out its flaws. She argues that, compared to traditional objectivity, "a much more sophisticated claim includes your perspective and implies the effect it may have on your stance," (Maddalena 182). It might make sense to simplify writing at first, leaving such complex ideas out, but by the time we are in higher level classes we should know that identity is a valid tool. Additionally, those who struggle with academic writing may find that coming to terms with their identity as an academic helps them. For instance, Jenny Cameron, Karen Nairn, and Jane Higgins discussed how they used the principle of interpellation in writing workshops as part of their paper, "Demystifying Academic Writing: Reflections on Emotions,

Know-How and Academic Identity." The authors, Australian associate professors and a research fellow from New Zealand, used their knowledge to provide writing workshops then gathered research from what they observed at these sessions. Interpellation, as described in the paper, is a theory from philosopher Louis Althusser that suggests that someone develops an identity through being described by certain terms then accepting these descriptors themselves. They found that such, "[s]trategies that position novices as academic writers can…help beginning academic writers develop a stronger sense of their legitimate voice and contribution," (Cameron et al. 280). If this is true, I feel that telling students that their identity does not have a place in their professional writing might lead them to feel as though they cannot contribute to more advanced areas of study. Therefore, normalizing the use of identity in students' writing might lead to higher self-efficacy and thus higher achievement in STEM.

4.  Difficulty with Identity

However, despite all the benefits, many students have difficulty using identity in their writing – even once they are taught that it is okay. Ken Hyland, also an associate professor of English, discusses how first-person pronouns and more generally the use of identity allows for emphasis and ownership of ones' ideas, as well as a sense of authority and commitment to the topic. He studied a number of his students at The City University of Hong Kong, trying to explain their relationship with authorial identity in order to benefit other teachers. In his research, his students were reluctant to adopt personal pronouns, which he attributed to the fact that English was their second language. However, in talking to my classmates, I have discovered that the majority of us are not comfortable with such practices either, even though most of us are primarily English speakers. Therefore, I believe that it has more to do with the way the majority of us are taught to write. As Williams puts it, "…academic writing is discussed as being a

definable, unchangeable, and impersonal skill that students should be taught," (712). This is reinforced by the standardized testing practices that have become common worldwide. Then, this early feedback might suggest to minority students that the culture around the field they are trying to write into is definable and unchangeable as well. I believe that students whose identity is further from the identity they need to perform would be more likely to develop negative feelings towards writing, and thus less likely to commit to those technical fields. Thus, women might be more affected than men, for example, as their identity is relatively further from that archetypal male scientist they are trying to imitate. In this sense, the same objective writing that is designed to make a level playing field might instead be putting women and other non-male gender identities at a disadvantage.

5. Gender Disparities in STEM

Some still argue that there is no gender gap in STEM, or if it was there, it has since been closed. However, recent evidence suggests otherwise. According to the United States Census Bureau, in 2019 women made up approximately 48% of the workforce but only 27% of STEM fields (Martinez & Christnacht). (It might be noted that those outside of the gender binary are not accounted for at all, possibly due to how significant of a minority they constitute.) Furthermore, that 27% reports more workplace discrimination based on their gender. Pew Research Center surveyed a sample of U.S. adults in the summer of 2017. In their results, 50% of women in STEM jobs reported to have experienced gender-related discrimination, compared to 41% of women in other careers and 19% of men in similar jobs. The issues they faced included earning less than men in the same jobs, being treated as incompetent, and various microaggressions from coworkers (Funk & Parker). In the classroom, female students experience similar situations. Siân Preece, a senior lecturer of applied linguistics in the United Kingdom, writes briefly about this

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