A Guide for non-Black Mentors of Black Students and Underrepresented Students of Color in STEM

Mentoring is an important way to make meaningful changes in the lives of young people. Ideally, the relationship between a mentor and a mentee should be mutually beneficial--and based on a strong foundation of trust, respect, and appreciation. When both the mentor and mentee are greatly invested in their roles, the mentorship is tremendously rewarding for both. Just as the mentee is expected to invest time and effort into their own development, the mentor, too should take an active role in supporting their mentee. If the mentee does not feel truly supported, and if the mentor does not take concrete, meaningful steps towards helping their mentee develop and access opportunities, this results in a low reward for the mentor and an unproductive experience for the mentee.

In the case of BIPOC (Black people, Indigenous people, and People of Color), a superficial mentorship is not just unproductive; it is actually damaging. Mentoring BIPOC is a potential anti-racism "action item" as long as the mentor is willing to make a real commitment to understanding and learning how to effectively address the barriers faced by their mentee(s). In order to make structural improvements to the notion of "mentorship", below is a guide for mentoring Black students and other underrepresented students of color (e.g. Indigenous and Latinx students are also traditionally underrepresented in STEM fields). This guide is geared towards white mentors in academic STEM settings, but the resources contained within it are useful for a mentor of any background. Consider this guide an overview and a starting point for serving as effective BIPOC mentors, rather than an exhaustive list of boxes to check. Please continue to refer to this guide and add to it, even as you practice it and circulate it. Margins are wide and spacing is ample to give you the opportunity to annotate if you like. Links, examples, and definitions are often provided, but you may add your own insights/reflections or add in external research. In this guide, a "Good example" represents behavior to emulate, and "Bad example" represents behavior to avoid.

This guide is a living document; updates and improvements are still being made. Guide written by **Veronica Padilla Vriesman**. To suggest edits or additions, email vpvriesman@ucdavis.edu or DM @vpvriesman on Twitter. There is a full table of contents and list of summary points on the last page of the guide.

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SECTION I: RESPECTING AND HONORING IDENTITY

- 1. Recognize the broad distinctions between the terms "Black", "POC", "URM", and "minority". Terms that describe identity can be variable and complex, but this is due to the complex history of categorization and marginalization of Black and Brown people. Familiarizing yourself with the difference between "minority" and "underrepresented minority" (URM) in your specific field is a good place to start, and then look into the more specific identities that fall within "BIPOC". To avoid misrepresentation or erasure, pay attention to how your mentee refers to themselves (i.e. on an application, a personal statement, or a diversity statement) and use the same terminology when referring to them. If you are unsure why they (or any individual) identifies a certain way, it is better to accept their terminology, adopt it, and then do your own research. Questioning your mentee about their identity could provoke feelings of discomfort for them. A simple internet search will offer up-to-date information about when and why each identity term is used. Learn to be aware of, and comfortable with, the terms that represent individuals' identities and avoid reverting back to terms simply because they are familiar to you.
 - 1.1. <u>→Good example</u>: You hear your Black mentee refer to herself as "Black". You use this term when speaking about her individual accomplishments. Previously, in reference to her, you had exclusively used "Person of Color", but from now on, you use "Black" when speaking about her individual identity. You now realize that "Black" is more specific and highlights her experiences much more than "POC", which erases her identity and incorrectly equates the identity and struggles of Black people with those of all individuals of color. This article addresses the problems with using "POC" as a catch-all term.
 - 1.2. <u>→Bad example</u>: Your mentee identifies as "Latinx". They have exclusively used this term in reference to themselves and their background. In your letter of recommendation for them, you call them "Hispanic", since you are more comfortable with this term and less familiar with the word "Latinx". However, your mentee's Latinx identity is not interchangeable with a term used to group Spanish-speaking countries and, in fact, they do *not* identify as "Hispanic". This article explains the problematic history of the term Hispanic, and why many Latinxs (or Latinos or Latinas) do not identify as such.

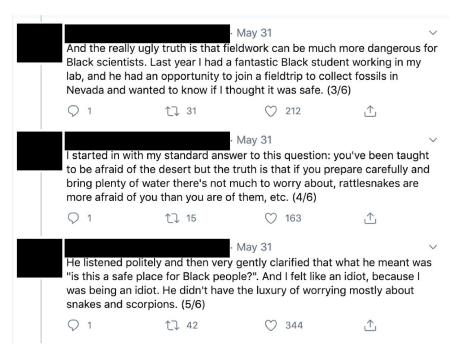
(A note on intersections of "identity": Individuals fall along axes of racial, cultural and ethnic identity. (For instance: consider an individual whose race is Black and whose ethnicity is Dominican, all with the nationality "American". This student identifies as both Black and Latinx, or Afro-Latinx.) There are additional demographic categories beyond racial/cultural/ethnic identity, including income class. Recognize the distinction between types of identity and income class: racial/ethnic identity is distinct from income class. There are certainly intersections and overlaps between socioeconomic status and racial identity—but terminology is not interchangeable. Each individual should be approached as an individual, but it is possible to appreciate individual personalities and

experiences while simultaneously acknowledging the importance of racial identity. Recognizing the complexity of intersectionality will also help you become aware of the wide variety of experiences within each group.)

SECTION II: BROADENING YOUR AWARENESS

- 2. Recognize that there can be educational, cultural, systemic, and/or socio-economic disparities affecting your mentee due to their identity and set of circumstances. Familiarize yourself with these disparities, and the ways in which they may manifest for your mentee. This may seem like a daunting task, but the best way to gain awareness about disparities that disproportionately affect a specific demographic is to broaden your own circle (see 2.1) AND ask your mentee directly (see 2.3).
 - 2.1. <u>→Good example (broadening your circle)</u>: You have an incoming Black graduate student who expressed an interest in pursuing a career in academia. You start to follow more Black academics on social media, and you begin to track <u>#Blackinthelvory</u> on Twitter. By listening to voices that you had previously not been exposed to, you learn that Black men and women make up only 3% of full-time faculty nationally. You recognize the need to advocate for your mentee because of the severe lack of representation that they will have to contend with as they pursue their career goals.
 - 2.2. <u>→Bad example (not broadening your circle)</u>: You are a geology professor with a Black undergraduate mentee. You do not know of any other Black academics in your subject area, so you have not come across statistics or anecdotes that highlight the challenges your Black mentee will face in geology. You offer your

mentee a field experience, but they are hesitant and ultimately decline the experience. You are disappointed in them for lacking dedication, but later your mentee admits that the fieldwork location is in a rural, remote environment that is notoriously dangerous for Black people. (For a real-life example,



- see the Twitter thread shown here by a white mentor that reflects on his own lack of awareness when mentoring a Black student.)
- 2.3. <u>→Good example (ask your mentee directly)</u>: You have a Latino undergraduate mentee that you would like to employ for a summer research internship. The internship would require him to stay on campus for the summer instead of returning home and the position is unpaid. When you meet with him, you ask him: "What are your biggest concerns with this internship? What barriers are you facing?" Since you have given him the opportunity to express concerns, he tells you that he typically works over the summers to earn money, and that his family expects him to be at home during the summer. You ask if offering summer funding would make the internship more feasible for him. You also consider allowing him to perform some research tasks remotely for part of the summer so that he could see his family for at least a portion of the time. You were not aware of his barriers, but you asked him directly, and now you are aware.

SECTION III: COMMITTING TO ADVOCACY

- 3. As a mentor (of any mentee), you recognize that you have made a commitment to support this individual. To some extent, you are partially responsible for this individual's success. It is more difficult to achieve success in STEM and academia for BIPOC. As the mentor of a BIPOC, this means that you must be willing to provide greater support given that they experience deeply rooted barriers that occur on all scales: everything from microaggressions committed by individuals to systemic racism perpetuated by institutions. If you want your marginalized mentee to thrive, you must be aware of this and committed to offering support and advocacy especially when challenges related to racism, injustice, and inequity arise--including "problematic behavior" that makes your mentee feel alienated or uncomfortable. As a first step to building trust for your mentee, make it clear that your mentee can report to/confide in you when it comes to "problematic behavior" (such as microaggressions, microinvalidations, etc.) by other undergraduates, grad students, professors, colleagues, the university administration, etc. If you tell them this explicitly early on, then they will know that you are a reliable source of support. They may need to see that they can trust you before they share personal experiences that you don't necessarily relate to, so don't expect that they choose you as a confidant. But by acknowledging that you are aware of rampant problematic behavior in STEM/academia, and that you are willing to be alerted about it when it occurs, you are taking a step towards building trust and eroding the power dynamic inherent in a mentor-mentee relationship.
 - 3.1. <u>→Good example</u>: You are mentoring a Black undergraduate student. Your mentee has a professor that assigned a book to his class that alienates Black students. The book is a guide on scientific writing, but it has a paragraph that targets Black students, making the claim (without evidence) that "Black students are more likely to procrastinate, which induces a case of writer's block." Your mentee feels inferior when they read this sentence in the book. Since you have

previously expressed to your mentee that they can bring these matters up to you and you will listen, your mentee tells you about this book and the way it made them feel. You listen to your mentee's experience all the way through. You recognize that this professor's reading assignment was disparaging to the Black students in the course. You ask your mentee if they would like you to reach out to the professor to point out that the book was problematic. Your mentee recognizes that this does not solve the problem, but they appreciate your receptivity and willingness to take action, which helps foster their trust in you.

(A note about the power dynamic in a mentor-mentee relationship: Even if you make it clear that you are willing to serve as a confidant for your mentee, there is an inherent power dynamic in the mentoring relationship, so it is possible that they may not choose you to report your colleague's problematic behavior to you. To address this, consider providing your mentee with an additional or alternative source to report problematic behavior to, such as an office or organization on campus. You can do this at the very beginning of the relationship, after you explicitly offer to serve as a confidant for any problematic behavior that occurs. If you do this, be sure to present this as an additional source of support IF they would prefer not to come to you, NOT a replacement for your support or advocacy.)

- 3.2. Know that offering to listen may open you up to the problematic behavior, nuances of injustice, and microaggressions that occur in our professional circles on a daily basis. It is a learning experience for you. If you are having trouble understanding the nature or nuances of the problematic behavior, here are some steps to take:
 - 3.2.1. Listen to the full story all the way through once before asking questions or requesting clarification. Interrupting--even to ask for clarification--is speaking over your mentee.
 - 3.2.2. Repeat the concern back to your mentee to ensure you heard and comprehended what they explained to you.
 - 3.2.3. Ask, "Am I misinterpreting what you are saying?"
 - 3.2.4. Say, "How can I support you? I am here to listen, but I am also in the position to take action if you would like." And then, discuss or brainstorm with your mentee what those actions could look like. For instance, *if you are in the position to do so*, you can reach out to a colleague that sent a problematic email or assigned a problematic book and let them know that it was discriminatory. You could recommend that it would be extremely beneficial for your colleague if they sent out an apology to students that *corrects* instead of *justifies* their behavior, for example.
- 3.3. Following up on the actions you pledge and keeping your mentee appropriately informed on the course of action builds trust. If you promise to take action in

response to something they reported to you, give them an update once you have taken action.

3.3.1. <u>→Good example</u>: You let your Black mentee know that you have reached out to the professor regarding their problematic behavior. You relay that the professor was unaware of that line in the book, and he will stop assigning and recommending the book. Your mentee is "kept in the loop" this way, and they see that you took their concerns seriously and followed up.

SECTION IV: LISTENING AND RESPONDING TO PROBLEMS

- 4. Be receptive rather than defensive when a student is reporting problematic behavior to you--regardless of how "minor" or "trivial" the problematic behavior may seem to you at first.
 - 4.1. If you are quick to defend the problematic behavior, or if you approach the conversation with an attitude of disbelief, your mentee will find it condescending and unhelpful. Compare the following analogies to examine how it feels to be invalidated/dismissed vs. how it feels to be heard and trusted. Aspire to make your mentee feel like the co-worker in the Good analogy rather than the child in the Bad analogy.
 - 4.1.1. →Bad analogy: Consider how you would react if a young child came to you with a story about their baby sibling refusing to share. Before even taking any action, you would naturally approach that conversation expecting that the young child was extremely biased and likely not telling the full truth. In your response, you would perhaps reproach the child and remind them that this wasn't the baby's fault because she is very young and still learning. In this case, you know who to believe and who to defend, and you do so. Of course, it is good for a parent to defend a baby and reprimand a child for exaggerating or casting blame. It is not good for a mentor to use this approach with a mentee because it feels condescending, defensive, and invalidating.
 - 4.1.2. →Good analogy: Consider how you would behave if a trusted co-worker came to warn you about a frustrating client. You view your co-worker as your equal, and you believe them when they tell you that they had a bad experience with a client. You appreciate their warning and know how to brace yourself for dealing with this client the next time you see them. In this case, you knew to believe your co-worker, and you knew there was no reason to defend the client. Your co-worker feels validated and glad that they chose to warn you.
 - 4.1.3. Approach and respond to your mentee as if they are the trustworthy co-worker warning you about the client, NOT as if they are an unreliable child telling a biased story about their sibling. Expect that everything your mentee is saying is entirely truthful and does NOT need to be questioned

- or qualified by you. Avoid the urge to "play devil's advocate", give the offender the "benefit of the doubt", or to "try and look on the bright side". Additionally, avoid using dismissive language like "They had good intentions, but…". The behavior was problematic if your mentee found it problematic. There is no need to remind your mentee that intentions were good or the offender is a nice person.
- 4.2. Listen and reflect if the student is reporting YOU to you. Be grateful that they trust and respect you enough to confront you about this. Expect to feel guilt or discomfort or embarrassment in response. This is part of the process of building a better relationship with your mentee. This discomfort or embarrassment can feel like pain, but really it is much more painful for your mentee to contend with the experience AND bring it up to you. Rather than centering your guilt or embarrassment (this is "white fragility"), focus on their concerns instead. Listen to what they are explaining, consider why your behavior was problematic to them, thank them for trusting you with this concern, apologize, and vow to do better. Then, avoid engaging in the problematic behavior again and, now that you know it is problematic, call it out when you see it in others.
- 5. Serve as an important source of support for your mentee. The way in which you respond to their needs matters. You may feel unequipped to confront certain concerns that they voice to you, but feeling unprepared to address a concern does not grant you permission to defer or dismiss the concern. Consider how they are feeling if they are expressing a problem to you, and aim to deliver a response or action that appropriately addresses their needs. Once again, remember to listen fully first--otherwise you are more likely to misinterpret the problem or miss what they are asking for. Offer the support you can, whether this is pledging a course of action to address problematic behavior or committing more time to reviewing your mentee's proposal, or whatever support is necessary and appropriate for the situation. The onus is on you as a mentor to ensure that your mentee is getting the academic (or financial or personal) support they need from you. Ask what they are looking for. Are they expressing concerns to simply lean on you as a confidant, or are they asking you to take action? Once you have offered what you can, ask IF they want additional support or resources.
 - 5.1. <u>→Good example</u>: Your undergraduate mentee confides in you about feeling isolated in the Department. You <u>listen to them</u> as they explain what it is like to be the only Black student in all of their major courses. You acknowledge their pain and share that you recognize how severely underrepresented Black students are in STEM. You <u>ask</u> if they would like some on-campus resources to help build their network. They say yes, and you recommend the Black Community of Science and the Feminist Research Institute. You <u>ask</u> if they would like additional personal resources to cope with their feelings of isolation, and they decline; they are satisfied with the professional resources and they just

- wanted to "vent" to you, but they are not looking for personal support or strategies at this time.
- 5.2. <u>→Bad example</u>: Your undergraduate mentee comes to you about feeling isolated in the Department. They are feeling uncomfortable in many of their classes since they are the only Black student. As soon as they begin to raise their concern, you tell them that you are not the best resource for them since you cannot relate. You give them the name of a Black faculty member who will "better be able to understand their needs". You also tell your mentee to go to therapy to work on the feelings of isolation they are experiencing. Your mentee had approached you expecting to confide in you and to become closer to you, but they leave the interaction feeling discouraged and dismissed.

(A note on referring BIPOC to therapy: Sharing resources is valuable, and it is good for your mentee to know the institutional support that is available to them. HOWEVER, be cautious when recommending therapy or counseling to your mentee. If you recommend it to all students/mentees because you are an advocate of mental health services, then continue to recommend it to BIPOC. But reflect on this before making the recommendation. Ask yourself, "Would I recommend to my white male mentee that he go to therapy if he described a challenge to me? Am I more likely to interpret my Black female mentee's challenge as "emotional" or "charged" simply because of her identity? Recall the "angry Black woman" stereotype. Recognize that you responding to your mentee's report or request with "Go to therapy" can feel dismissive and ill-timed. A recommendation to seek therapy also fails to address the origins of a problem. Therapy is an excellent resource for coping and mitigation--and a resource that all students are likely to benefit from. But it is NOT a deferral tactic to use when a student approaches you about a problem or barrier they are facing.)

5.3. The difference between the above examples is that the mentor in the "Good example" listens first, and then asks the mentee what kind of support they are looking for. The mentor in the "Bad example" immediately dismisses any responsibility they have in dealing with the problem. The "Bad example" mentor outsourced before even reflecting to see how they could have helped, and did not even listen to the mentee's frustrations or desires. This conveys that this mentor is deferring action and passing responsibility off to someone else, and the mentee will not feel like they can come to them in the future. Additionally, the mentor missed the opportunity to push their own progress and develop new problem-solving skills.

SECTION V: EVALUATING YOUR OWN ACTIONS

- 6. Educate yourself on microaggressions, and be sure to avoid doing them to your mentee. Here is a good place to start to read up on the definition and implications of a microaggression.
 - 6.1. Microinvalidation is one of the most common forms of microaggression. The issues addressed in #5 offer examples of microinvalidation (ignores or invalidates the thoughts, feelings, or reality of BIPOC). Another example of a microinvalidation below:
 - 6.1.1. <u>→Bad example</u>: Your Black mentee is explaining an interaction they had with a professor, Dr. X, that made a problematic comment. Your mentee tells you that the comment was racist, but you don't think your colleague is a racist, so you respond with: "Dr. X is a really nice person though. Are you sure that's what he <u>really</u> meant? You might just be looking at it from the wrong perspective." The problem is that you, as a white mentor, do not get to decide if your colleague is racist or not. Your Black mentee, being on the receiving end of racism, is reporting their lived experiences. Denying their reality is microinvalidation, and it is dismissive and harmful.
 - 6.2. Know that if you are not BIPOC, you may have trouble picking up on microaggressions and recognizing how pervasive and damaging they are. Your lack of awareness does not make them trivial or invalidate the harm they cause. Learn to listen for microaggression. It is one of the most nuanced, "under-the-radar" forms of racism. To improve your understanding of microaggressions and to respond to them appropriately, use the steps from 3.2.1-3.2.4. This perceptive approach will validate your mentee AND will teach you to recognize that a microaggression is racism packaged in subtle language.
 - 6.3. Be sure to listen for microaggressions from others (professors, other grad students, etc.) and call them out on their behavior in an effective, constructive way. Refer them to the above resource.
- 7. **Don't make empty promises on social media.** This is false advertising, and it is harmful to students who sought you out because they thought you were a true champion for the cause. This is called <u>virtue signaling</u>. Examples include retweeting posts from racial justice advocates, humble-bragging, or congratulating yourself on social media for "standing up for a cause" (i.e. telling your followers about the Black student you helped instead of investing that time and energy into helping that student), sharing "resources" without actually reading and implementing them in your own life, and viewing activism as a social media challenge without participating in the movement (i.e. posting a black square for <u>#BlackOutTuesday without following up</u> with meaningful actions). Performative or optical allyship does a harmful disservice. Consider the following analogy to understand the harm of performative allyship.
 - 7.1. <u>→Bad analogy</u>: You have food allergies, so prior to trying a new restaurant, you check the menu online to determine whether or not you would like to visit this

- restaurant. You find that the menu offers many allergen-free options and even explicitly claims to accommodate special diets. You are relieved and you look forward to eating there. Once you get there, you see none of these things on the actual menu. When you ask for them, your waiter is reluctant to make changes to the menu items for you. When your food arrives, it ends up triggering a bad allergic reaction for you. You are angry and feel wronged by this restaurant and its false advertising, which caused you great harm.
- 7.2. When BIPOC search for potential universities, advisors, job openings, etc., they do their research to make sure they will be safe and welcome in this new environment. Whereas a white student may apply to graduate school and make a decision based on the prestige of the school, the esteem of the advisor, and the proximity to enjoyable activities, a Black student will consider the following, even before applying: "Is it safe for me to live in the city where this school is located? Does this advisor have other Black students in the lab? What do the other BIPOC in the Department say about their experiences? Does the advisor's social media presence seem to be a sign that they are an ally of BIPOC?"
- 7.3. That last question is related to how you, as a mentor, present yourself on social media. Remember that some students are making decisions based upon your posts and retweets. If you seem to be an advocate and a supporter of their community on Twitter or Instagram, they are expecting to see this in your mentoring. They are trusting you, and they now have expectations of you. If your mentee arrives and you do not exhibit traits of allyship towards them, you have failed them, in the same way that the restaurant falsely advertised to you and failed you when they claimed to have an allergen-friendly menu in the Bad analogy. Do not advertise yourself in this way if you are not actively incorporating anti-racist measures into your mentoring, your teaching, and your administration.
- 8. Know your mentoring style. If you are a graduate advisor, do you know if you are a strict advisor? Lenient? Hands-off? Consider taking a mentoring style survey (such as the one from UC Davis Grad Studies, available here.) Once you know your mentoring style, you have a better sense of the personality that would align best with your style, regardless of the mentee's race. While mentoring style and mentee personality should align for any successful mentoring relationship, it is particularly critical for mentees who are BIPOC. For instance, if you as a mentor believe that personal counseling and support are not the responsibility of the mentor, perhaps you would not be an effective mentor for a BIPOC who requires extra support and advocacy from you. Or, for an additional example, if you believe that the mentor is not responsible for providing career advice or professional connections for a mentee, perhaps you would not be an effective mentor for a BIPOC who does not yet have a professional network and is looking for a mentor that can provide this. Avoid using this as an excuse to dismiss yourself from anti-racism action; instead, would you be willing to challenge your beliefs or misconceptions about mentoring? Perhaps you view your harsh, hands-off mentoring

style as effective and constructive, but is it possible that you are misconstruing "problematic" or "unsupportive" as constructive? It is important to recognize the distinction between a "strict mentoring style" (which would suit many BIPOC just fine, depending on personality) and an insensitive mentoring style rife with problematic or racist actions (which would not suit BIPOC).

- 8.1. Acknowledge the influence of personality on top of racial identity. Just because a mentoring technique worked for one Black student does not mean it will work for another. BIPOC do not speak for all BIPOC, and BIPOC do not all experience the exact same things or respond the same way to their experiences.
- 8.2. Regardless of your mentoring style, avoid disparaging language when offering feedback or edits to mentees who are BIPOC. It is good to be stern and constructive, if that is your mentoring style. The recommendation is to be considerate, constructive, and intentional with your word choice and tone--which is not the same as *soft* or *overly lenient*. Recognize that a mentor can be stern, constructive, sensitive, supportive, and critical all at once.
 - 8.2.1. <u>→Good example</u>: Your Latinx mentee shares a draft of a grant application with you, and you provide the feedback: "Be specific and concise in your wording. Make sure that you understand the process you're describing first--come talk to me if you want to clear up some things--and it will make the text flow more cohesively. You have a lot more editing to do before you can submit this, but this is on the right track." Your mentee understands that this is an imperfect draft with edits to be made, but you have provided clear direction for them and they do not feel denigrated.
 - 8.2.2. <u>→Bad example</u>: Your Latinx mentee shares a draft of a grant application with you, and you comment, "This is poorly written, lazy language. It looks like you are 'faking it 'til you make it'. Learn to write like a scientist--it doesn't sound like you know what you are talking about here. I don't know if you should even submit this." To your mentee, this implies that they are not a scientist--and perhaps they feel that they never will be, given your abstract negative feedback. You haven't provided any concrete examples of how to improve so they do not know how to proceed.
- 8.3. Many mentees, regardless of background, have impostor syndrome. A good mentor helps them to work through and overcome it, and a good mentor to BIPOC recognizes that impostor syndrome can be even more deeply rooted in their mentee, given that many BIPOC are on the receiving end of stereotypes of presumed incompetence (see next linked article). These inflamed, racially charged cases of impostor syndrome require even more investment to overcome. First, acknowledge that fostering a case of impostor syndrome in your mentee is one of the most detrimental things that you could do as a mentor, and then, examine the ways in which you are (or are not) contributing to helping your mentee overcome their case of impostor syndrome. The Good example above is an example of non-loaded, helpful, constructive feedback, while the Bad example

contains disparaging, unhelpful, antagonistic language that plays into an <u>ethnic</u> <u>stereotype</u>--and fosters rather than fights impostor syndrome.

SECTION VI: INSTILLING CONFIDENCE

- 9. Understand that there is a difference between being aware of systemic disparities affecting your mentee and expecting your mentee to underperform or "setting the bar low" for your mentee. Maintaining awareness of injustice experienced by your mentee does NOT mean you should encourage short-selling (which can foster impostor syndrome). It is possible and necessary to both have high expectations for your mentee AND remain aware of the racial injustices playing a role in your mentee's professional growth. You will instill confidence in your mentee if you are able to set high expectations and help them to meet those expectations.
 - 9.1. <u>→Good example</u>: Your undergraduate mentee tells you they are interested in taking some geology courses. You are receptive to your mentee when they express their concerns about their minimal STEM background in high school with no earth science experience at all. You tell them that you understand this concern, and you have resources for them. You lend them some spare textbooks that may be of use. You recommend engaging, hands-on geoscience classes in your Department with professors that have a good reputation for attracting students to geoscience. You tell them that you have confidence in their abilities and that you will be there as a mentor to offer support as they navigate this new material. You are acknowledging their experience up to this point while also working to help get them to where they want to be.
 - 9.2. <u>→Bad example</u>: Your undergraduate mentee tells you they are interested in taking some geology courses. You ask them if they have any earth science experience, and you express concern about their knowledge gap with the subject area. Since you know that BIPOC have less access to outdoor environments, you discourage them from taking geology courses and pursuing field opportunities. This is an example of unhelpful, low expectations, which will only result in a continuation of the whiteness cycle in geoscience.

SECTION VII: PROVIDING TANGIBLE SUPPORT

10. Regardless of advising style, try to be as concrete and transparent as possible in what you offer your mentee. Your mentee may or may not be a first-generation student, and your mentee may or may not have had engaging experiences in STEM or preparation for academic spheres. You may be the first "good mentor" in the life of your mentee. In any case, your mentee will benefit most from concrete guidance and direction. Your mentee is not coming from the same wealth of experience and knowledge base as you (this is true for any mentee, not just BIPOC, but likely more true for underrepresented students).

- 10.1. When you first begin to serve as a mentor, take an active role in getting your mentee on the right track by (1) being transparent about what YOU can do as their mentor and (2) specify what they should be doing as your mentee. If appropriate, tell your mentee something like: "I am willing to do X,Y, and Z for you. I would like you to try to do X,Y, and Z for our next meeting. What questions do you have about that?"
 - ask for too much from you. He is interested in a project that requires external funding. In the first week of advising him, you tell him explicitly that he can ask you for letters of recommendation, for co-authorship on grants, for \$1000 of research funding annually from you, but he should expect to apply to research grants for any funds beyond this. You also tell him that you would like to meet monthly to go over data, but he is responsible for collecting the data and bringing data to meetings with you. Your mentee understands, and begins to research small grants that could cover the remaining funds and larger co-PI grants that he could potentially co-write with you. He is challenged by the independent data collection, but he is glad that you told him and he will make this a priority.
 - 10.1.2. →Bad example: Your new graduate mentee is a Black first-generation student with no example of what an "advisor" does, so he does not want to ask for too much from you. He is interested in a project that requires external funding. You tell him it's an interesting project and you aren't sure if it will work, but he can try it if he wants to. Your mentee does not know if you support this project intellectually or financially. He is not sure if you would be willing to write the letter of recommendation. He wants to pursue this idea still, but isn't sure how. The likelihood of this project's success seems low to your mentee, and he still does not understand his role as your mentee nor your role as the advisor.
- 10.2. The point here is not that you go "above and beyond" catering to your mentee, but rather, that you make it extremely clear what your job is as their mentor and what their job is as your mentee. If you are willing to contribute nothing but proofreading a grant application, make this explicit. Whatever you have available to offer them (even if it is not much time or much money), make this clear to them. Your transparency will help them learn what types of tasks to ask you for, which will dramatically improve their independent output as well. If the mentee knows that they can expect a letter of recommendation, \$1000 in research funds from you, and weekly meetings to go over data, they will know what to bring you, and they will do it well. If they do not know what to bring you or what to ask for, you are likely to have ineffective meetings or interactions that leave them feeling clueless and unproductive, and leave you feeling frustrated and unimpressed by their progress.

- 10.3. Mentorship may seem like an abstract leadership role, but effective mentors to BIPOC offer explicit, concrete strategies instead of a mere abstract presence. If appropriate, tell your mentee what you expect them to be doing. This will not last long; they will learn quickly, and your mentoring relationship will then evolve into something more organic. But in the beginning, offer concrete tasks that they can work towards achieving. Otherwise, an underrepresented/first-generation student may wait for you to tell them what to do as their mentor, and meanwhile you are expecting that they know what to do and they are doing it. Recognize that this is not handholding, but rather, strong mentorship; you are offering critical support early on in the career of your mentee. Your mentee will quickly learn what is expected of them and how to perform in response.
 - 10.3.1. →Good example: You set up a meeting with your new graduate mentee, and you have a list of agenda items to go over with them. You spend a few minutes preparing prior to the meeting (even just 5 minutes of prep time from you would be helpful). You ask them what they have been up to and if they have questions for you, and then you (1) recommend a paper on a topic they are interested in, (2) suggest a link to a list of funding opportunities they should consider applying to, and (3) suggest a data collection technique that they should familiarize themselves with, if they have not already. For next week's meeting, you ask them to (1) come prepared with questions/thoughts they have about the paper you recommended, (2), select a few relevant funding opportunities to apply to for this year, and (3) determine whether or not this data collection technique would be appropriate for the research questions they are interested in. This is an example of an effective research meeting that will result in meaningful outcomes and solid progress from your mentee.
 - 10.3.2. →Bad example: Your new graduate mentee comes empty-handed to a weekly meeting with you. You are frustrated that they seemingly spent an entire week working on nothing. Your meeting is unproductive; you find you have nothing to talk about since your mentee accomplished nothing. You express disappointment that they got nothing done. You leave the meeting thinking your mentee lacks initiative.
- 11. Once you get to know your mentee and their interests, help your mentee build a network by introducing them to individuals/organizations and facilitating connections for them.
 - 11.1. Do you know of individuals (other mentors, role models, potential collaborators, colleagues, etc.) that share an identity/background with your mentee that you can introduce them to? Do you know of any associations or organizations (clubs on campus, like a Black Student Union or Latin American Student Organization, as well as external associations or groups, like GeoLatinas or BlackAFinSTEM) that you can connect them to? Representation, a sense of belonging, and the support

of people who have similar sets of experiences are all truly critical. Recognize that you personally may not be able to offer this, but you can play an active role in connecting your mentee to representation.

- 11.1.1. <u>→Good example</u>: Your mentee is a Black undergraduate student interested in wildlife biology. You recommend the #BlackBirder and #BlackinNature hashtags on Twitter, and keep a lookout for any biology-related opportunities for undergraduates (grants, scholarships, internships, and even courses) and pass them along to the student.
- 11.1.2. When you do not personally know of an individual or organization to recommend to your mentee, social media is a great resource. STEM--and the geosciences in particular--IS incredibly white and underrepresented, but it is not true that there are NO BIPOC in a given field. Find out what your mentee is interested in, and look up individuals or organizations or associations that cater to these interests. Ask your mentee if they would like help establishing a connection or reaching out to an individual or organization. And, if you and your mentee are both active professionally on social media, ask them if they would like a feature or signal boost.
- 11.1.3. You can ask how your mentee would prefer to hear about these opportunities. Would they prefer if you just forwarded them emails about opportunities that may be of interest, or would they prefer you compile a list of opportunities and then go over the list in a meeting with them? The list of opportunities may be a good starting point (particularly for an undergraduate mentee) so that you can talk through options rather than risk the emails getting buried or overlooked.

12. In order for your Black and URM mentees to access and excel in opportunities, you need to commit additional support to them.

- 12.1. This may sound like favoritism. This may seem biased or exclusionary to your white and non-URM mentees. It is not. Remember we are striving for equity, which does not have the same meaning as equality. BIPOC need MORE of your attention and expertise in securing opportunities (internships, grants, tenure-track jobs, fellowships, leadership roles, etc.). (One example of Black scientists receiving funding significantly less often than white colleagues can be found here, but numerous examples can be found across all STEM fields and professional environments.) Your white mentees and students will not be passed over. They will not have trouble finding opportunities, and they will not be forgotten.
- 12.2. BIPOC may be less likely to nominate themselves, consider themselves a candidate for an opportunity, or receive promotions/accolades once they do secure an opportunity. BIPOC must contend with racist and implicitly biased employers, reviewers, supervisors, and administrative systems who may not consider them for an opportunity or who may be more likely to turn them down if

they do apply. Combat this by nominating your Black mentees and mentees of color for more awards, commit to co-writing grants with your grad student mentees of color, and vocally advocate for your Black colleague's tenure and promotion--to name just a few examples.

There is a lot of information to unpack here that requires deep reflection and commitment. But recall that this is a learning experience for you, and that any type of progress needs significant investment in order to achieve success. Do not let it seem overwhelming. The endeavor of scientific research does not have a finite goal; as scientists, we are never satisfied with "good enough" and we will never find out "everything we need to know" about a given process or event. Instead, we are always investigating, always learning, always pursuing. Apply those same skills and that same drive to allyship and mentoring. Just like with research, we are constantly adjusting and constantly improving. The same can be done for mentorship of BIPOC. Lastly, recall that academia has traditionally excluded and exploited BIPOC, so academics have the responsibility to uplift and amplify BIPOC pursuing STEM and academia. This does not undo past injustice, but it is a step towards dismantling a future that perpetuates injustice and building a future that promotes genuine equity. Many will not choose to accept this responsibility, but those who do have the capacity to effect meaningful changes in the lives of the BIPOC they mentor, and ultimately, in STEM and academia as a whole.

Table of Contents and Summary Points

SECTION I: RESPECTING AND HONORING IDENTITY (1)

-Recognize the broad distinctions between the terms "Black", "POC", "URM", and "minority".

SECTION II: BROADENING YOUR AWARENESS (2)

-Recognize that there can be educational, cultural, systemic, and/or socioeconomic disparities affecting your mentee due to their identity and set of circumstances.

SECTION III: COMMITTING TO ADVOCACY (3)

- -As a mentor (of any mentee), you recognize that you have made a commitment to support this individual.
- -Know that offering to listen may open you up to problematic behavior, nuances of injustice, and microaggressions that occur in our professional circles on a daily basis.
- -Following up on the actions you pledge and keeping your mentee appropriately informed on the course of action builds trust.

SECTION IV: LISTENING AND RESPONDING TO PROBLEMS (4-5)

-Be receptive rather than defensive when a student is reporting problematic behavior to you. Serve as an important source of support for your mentee.

SECTION V: EVALUATING YOUR OWN ACTIONS (6-8)

- -Educate yourself on microaggressions, and be sure to avoid doing them to your mentee.
- -Don't make empty promises on social media.
- -Know your mentoring style.
- -Acknowledge the influence of personality on top of racial identity.
- -Regardless of your mentoring style, avoid disparaging language when offering feedback or edits to mentees who are BIPOC.

SECTION VI: INSTILLING CONFIDENCE (9)

-Understand that there is a difference between being aware of systemic disparities affecting your mentee and expecting your mentee to underperform or "setting the bar low" for your mentee.

SECTION VII: PROVIDING TANGIBLE SUPPORT (10-12)

- -Regardless of advising style, try to be as concrete and transparent as possible in what you offer your mentee.
- -When you first begin to serve as a mentor, take an active role in getting your mentee on the right track by (1) being transparent about what YOU can do as their mentor and (2) specify what they should be doing as your mentee.
- -The point here is not that you go "above and beyond" catering to your mentee, but rather, that you make it extremely clear what your job is as their mentor and what their job is as your mentee.
- -Mentorship may seem like an abstract leadership role, but effective mentors to BIPOC offer explicit, concrete strategies instead of a mere abstract presence.
- -Once you get to know your mentee and their interests, help your mentee build a network by introducing them to individuals/organizations and facilitating connections for them.
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