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Interpretative Repertoires for Talking about Science-Related Careers

This study was designed to better understand discourse about career choices in student–researcher interviews generally and the science-related identities exhibited in such discourse in particular. Drawing on discursive psychology as theory and method, we identify four salient interpretative repertoires used in the interview discourse when students talk about career options. Each of these interpretative repertoires presents a linguistic resource for (dis-)identifying with science-related careers (see Table 1). These interpretative repertoires pertain to the (a) formative, (b) performative, (c) consequent, and (d) potential dimensions of actions. These interpretative repertoires can be thought as culture resources or a toolbox with different compartments or a tote tray from which participants draw on for their conversations. The resulting discourse therefore has properties that do not belong to individuals but to the culture and are merely realized in a concrete manner by individuals. These interpretative repertoires can serve as both possibilities and constraints in the interview discourse. Possibilities exist in the sense that participants can freely and without reflecting draw on these intelligible and cultural possibilities to assist in their articulations; and constraints exist in a sense that only certain forms of language (e.g., interpretative repertoires) can be used without the threat of being challenged. In the following sections, we demonstrate how these cultural tools were mobilized for articulating career choices in interviews. Each of these interpretative repertoires is described and

Table 1

The interpretative repertoires and identification resources for talking about possible careers

Interpretative Repertoire	Identification Resource		Example
Formative	Formation or requirement of actions	(Identify) special and beneficial	Psychologist—"Psychologist, uhm I think psychology is so interesting . . . I love just learning about that"
		(Dis-identify) too ordinary/ too challenging (extreme cases)	Waitress—"it is pretty mediocre. It is kind of funny to knowing that I can make as much as a 45 years old woman." Astronaut—"well I would love to go up into space but it is so much preparation to do that"
Performative	Actions	(Identify) practicable	Immunologist—"I find it interesting like how you can work with, like viruses and find sort of ways to like slow them down and sort of test with that."
		(Dis-identify) impracticable	Dentist—"It's just like drilling in your teeth, ah, I just oh, I cannot, like the noises, oh it just gets to my ears and it drives me crazy. I just can't do it."
Consequent	Effects of actions	(Identify) influential	Doctor—"After helping a patient, it would be pretty cool to see have them like smile you know"
		(Dis-identify) not influential/ too influential (extreme cases)	Chemistry/Math teacher—"There is no turnout, like sure you solve the equation but then what? what is the point?" Surgeon—"I would be like really paranoid that I would screw up or something and kill somebody."
Potential	Action potentialities	(Identify) expanding	Biotechnologist—"You can sort of branch out into different topic areas and a lot of it is sort of finding different ways to like make things better"
		(Dis-identify) stationary	Elementary teacher—"It usually kind of seems to stay the same, like the same curriculum. I think I would be more interested in being able to keep learning"

illustrated with different examples in terms of (dis-)identifying with various careers. With the identification information, we further discuss how science-related identities were co-articulated and exhibited in such discourse.

Formative Dimensions of Actions

The formative repertoire constitutes discourse about formations, special characteristics or requirements for becoming a vocational agent. If we look at the example of being a scientist, this vocation is normally associated with being smart, professional, and special and specialized. It is noted that someone needs to undergo a lot of schooling before being a scientist. These required characteristics or processes become discursive resources to articulate careers in the discourse. In this section, we demonstrate how this kind of resource—the formative repertoire is mobilized in our database to reason and (dis-)identify with possible career options. We exhibit five excerpts (two identifying and four dis-identifying) to demonstrate the use of the formative repertoire in the interview situations. (We use eight digits to trace the sources of exemplary excerpt. For instance, "0126-2034," "0126" indicate the interview was on January 26th and "2034" indicates the excerpt starts from the 28th minute and 34th second of the interview video tape.)

In the following excerpt, we make available a conversation that occurred after Mandy wrote down "specialized doctor" as her preferred career and "clinical doctor" as a disliked career. When asked for

justifications for the choice of “specialized doctor,” the character of specialized personnel—“focus in on one thing” and “master”—the trait of being a specialized doctor is utilized as a resource in an for a response.

(0126-2034)

Interviewer: so number three is?

Mandy: specialized doctor, i guess i (.) just am:: uhm you could focus in on one thing, and you could really kind of MASTER that and be able to open something, i am not sure exactly what the would be (.) yet, but something more specialized rather than just like a clinical doctor ((points to the ‘‘clinical doctor’’ card))

Interviewer: so do you discuss this with your friends or family before?

The excerpt shows that not any form of doctor constitutes a possible career but a specialized one. Specialty becomes the central feature for justifying this choice as if specialty is something attached to that particular career. That is, the characteristic of being specialized is a resource, one form of the formative repertoire, mobilized in the conversation to legitimize the choice of being a doctor. In the next excerpt, Elise also draws on the formative repertoire to articulate one of her career choices—psychologist.

(0110-3033)

Interviewer: so how about this one ((points to the ‘‘psychologist’’ card)), psychologist?

Elise: psychologist, uhm:: i think psychology is SO interesting (...continue...) i love just learning about that, because in order to do this sort of a job (.) or anything, to succeed in any type of job, you have to be, like you have to understand psychology because (.) like if you are a lawyer or a message therapist, you have to learn how to communicate with people and understand like (.) when it is right to say what (.) and what to say (.) and you know just generally it is just a really good thing to know, it is a good course or if you can get a degree in that (.) it is really good

Interviewer: like a necessary (.) a course you have to do.

Elise: yeah

In response to the question of being a psychologist, Elise quickly relates to the subject of “psychology”—a subject needed to be studied before being a psychologist. The advantage of learning psychology to other occupations “lawyer” and “message therapist” is connected, as learning psychology is a way to many successful careers. She also describes how she enjoys learning about the subject of psychology “psychology is so interesting,” “it (psychology) is a good course.” As the interviewer’s comment “like a necessary a course you have to do” suggests, we can hear the conversation as emphasizing the importance and benefits of taking psychology courses—these formation processes before being a psychologist become a salient resource that allow Elise to identify with a possible career.

The same interpretative repertoires can be used to make opposing claims (Roth & Lucas, 1997). This is the case in the present data sources when students draw on these discursive resources to dis-identify with certain career options. In the following excerpt, we show how the formative repertoire can be used as a resource to dis-identify with some careers including surgeon, general practitioner, or pediatrician by relating to the schooling requirement.

(0117-2543)

Kelly: because if i want to become any of these other things ((point to the surgeon, general practitioner, pediatrician cards)), i have to go to school for at least seven years (.) so that is holding me back too

Interviewer: so you mean when you graduate from high school, you can be a personal trainer?

Kelly: yeah, i can pretty much go into that (.) easy

Interviewer: okay

“Personal trainer” is Kelly’s favorite career that is then compared to other positively marked careers (surgeon, general practitioner, pediatrician). Although being a doctor is one of her favorite careers, the years of schooling—the time demands for becoming a doctor is an issue that “holds her back.” That is, one aspect of the doctor formation—time requirement for schooling—is a resource to make the career justification possible in the discourse. With a similar but slightly differing way of reasoning, the preparation before being a professional is also used as a resource to justify the choice of doctor.

- (0118–3016)
- Interviewer: which part situation you don’t like about it ((points to the ‘‘doctor’’ card))?
- Claire: the schooling
- Interviewer: oh:: i see (.) you have to take a lot of courses
- Claire: a lot of courses (.) and i don’t know if i can handle that though (.) because my cousin tried taking some of the course but he (.) it was too much for him (.) so::
- Interviewer: um:: so he give up?
- Claire: yeah he give up

Claire ranked “doctor” as her third preference. The discourse she draws on highlights the required “schooling” as a concern and describes the situation from a witness perspective—the cousin gave up being a doctor because of “too much” courses. Here, Claire draws on the formative repertoire to justify her position and further supported by a reliable voice—her own cousin who is a relative of Claire and would not likely lie to her. This *corroboration* (is there another witness to this event?) from a reliable witness makes people’s utterances stronger and more convincing (Potter, 1996).

In addition to the aspect about schooling of transformation to be a science-related agent, other aspects of career formations are also made salient in the formative repertoire. For instance, the following excerpt shows that the physical preparation required can be mobilized as a resource to justify and dis-identifying with the choice of “astronaut.”

- (0112–1921)
- Interviewer: you like the science subject but you don’t like astronomy?
- June: no
- Interviewer: why?
- June: well (.) i would love to go up into space, but it is so much preparation in order to do that, so if there is something in the future, someday to go up into space without all those ((waving hands))
- Interviewer: physical training?
- June: yeah, tasks, it is too much i think (.) but if you could just shoot up there, i would love to go
- Interviewer: then you would do that.
- Jun: yeah
- Interviewer: Okay, so how about this one. ((points to another card))

The excerpt shows that the preparation before being an astronaut “so much preparation in order to do that” is a resource for justifying June’s choice in the conversation. The formative repertoire again helps June to convince her position to the other without being challenged. Besides the time or physical demands, the environments in the process of formation could also be dimensions for dis-identifying with a career. For instance, in the next excerpt, drawing on the formative repertoire Candy dis-identifies with being a “teacher.”

- (0109–2311)
- Interviewer: so a teacher?
- Candy: um:: so my philosophy on that is that, you go to school to get out of school, to go back to school, to go back to SCHOOL, again they need to be done, obviously teachers need to (.) because you know (.) yeah nobody, i can really respect someone who can go k to twelve, go to university and then come back to maybe grade twelve or grade eleven, or, you know, that is not for me.
- Interviewer: so how about the group named ‘‘inside’’?

The discourse about getting oneself into and out of school (“go to school [K–12] to get out of school, to go back to school [university]” and “to go back school [K–12]”) is described as a repetitive process to becoming a teacher. Here, we can see that situating something in similar environments in the process of becoming a teacher is a resource in the discourse to dis-identify with the career of “teacher.”

As the six examples demonstrate, the formative repertoire, addressing special characteristics and requirements, legitimizes career choices without raising questions. We also find that when careers are commented upon as special and beneficial, a positive identification usually follows (see Table 1). That is, science-related identities of “specialist” and “beneficiaries” emerge with the formative repertoire in the discourse. This then illustrates the importance of discourse addressing special characteristics, benefits, and advantages in the formation and transformation for becoming professionals, because they make the process of preparation meaningful and relevant.

Performative Dimensions of Actions

The performative repertoire invokes discourse that highlights actions and performances practiced in particular occupations. When considering possible careers, relevant actions involved in these careers are often mobilized as resources to support career choices. For instance, in the discourse of choosing to be a scientist, the descriptions of experimental practice and hand-on activities in scientific projects are often utilized as resources to support such a choice. In this section, we illustrate how conversation participants draw on the resource of the performative repertoire to articulate career choices with three identifying and two dis-identifying cases.

The interview protocol was designed to understand ways of justifying the careers written on cards. After writing down “marine biologist” on a card as one of her preferred careers, Amy starts to articulate this card even before the interviewer has asked any question about it.

- (0131–1255)
- Amy: um:: marine biologist, i don't know, i have always, since i was little i just said i want to be a marine biologist
- Interviewer: OH REALLY? why?
- Amy: i don't know WHY, i was just so drawn to it, like i LIKE animals (.) and the work experience that you get to do, it's like going out on the site (.) and like seeing everything all the wild and how it naturally is like, i think it is just so amazing.
- Interviewer: you say all animals or marine animals?
- Amy: just marine animals
- Interviewer: okay

The discourse drawn upon articulates the actions that a marine biologist would do in their work (i.e., “going out on the site” and “seeing everything all the wild”). Here, the excerpt shows that the actions performed by a marine biologist serve as a central resource to articulate the choice of becoming a marine biologist. In a similar way, the next excerpt shows how Kyla, for the benefit of the interviewer, mobilizes the performative repertoires as a resource to legitimize one of her preferred careers—immunologist.

- (0125–2730)
- Interviewer: okay how about this one? (points to the “immunologist” card)
- Kyla: that one (.) i find it interesting like how you can work with, like viruses, bacteria, and find sort of ways to like slow them down and sort of test with that. (then continues to talk about being a teacher)
- Interviewer: and which level you want to be a teacher?

In response to the interviewer's question, Kyla draws on discourse that describes actions practiced in a working situation: an immunologist would have to “work with viruses,” “slow them down,” and “test them.” That is, the discourse in both Amy's and Kyla's cases depicts actions performed by the particular science-related agent to identify with a career.