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Expanding the Reflexive Space: Resilient Young Adults, Institutional Cultures, and
Cognitive Schemas

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ABSTRACT

For many U.S. young adults, being resilient to stressful events hinges on making meaning of such events and thereby minimizing their negative emotional impact. Yet why are some better able to do this than others? In this study, which uses an innovative outlier sampling strategy and linked survey and interview data, we argue that one important factor is connection to institutional cultures associated with higher education, religion/spirituality, and the military. Such cultures provide material for the development of cognitive schemas that can be adopted and applied to their stressful experiences; which include narratives of *social progress*, *divine providence*, and *self-discipline*. Using a metaphor adapted from the pragmatist philosopher Charles Sanders Peirce, we argue the resulting schemas have the effect of “expanding the space” of reflexive thought, providing new cognitive material for interpreting stress and supporting resilience. Finally, we argue this framing improves in several ways on the concept of meaning-making often used in stress process research.

KEYWORDS:

Stress and Coping, Resilience, Young Adulthood, Culture, Pragmatism

INTRODUCTION

In the current context of economic uncertainty and rising rates of youth depression and anxiety, what makes some U.S. young adults thrive while others do not? In part, the answer lies within different levels of exposure to stress throughout the life course (Johnson et al 2011); different amounts of coping resources like support networks and self-esteem (Pearlin 1989; Thoits 2010); and social factors like gender and racial identities or neighborhood contexts (Adkins et al 2009; Young and Wheaton 2013). Yet some young people thrive *in spite of* stress and disadvantage, demonstrating resilience. Such people often operate as psychological activists (Thoits 1994), transforming the meanings of stress into something that is beneficial rather than limiting, thereby minimizing its negative emotional impact. While studies of stress tend to focus on trends and averages, there is insight to be gained by examining such instances of better-than-expected outcomes from resilient outliers.

Pragmatist theories of the self, like those of George Herbert Mead and Charles Sanders Peirce, can be used to frame resilience as arising from reflexive thought. Likewise, many interview studies show how resilience arises from reflexive narratives about stressful pasts or conditions and positive future possibilities (McAdams and McLean 2012; Silva 2012). Archer (2012, 2007), studying young adult life trajectories in the United Kingdom, sees reflexivity as an imperative in modern contexts of rapid cultural change, where handed-down models are insufficient to direct behavior.

Peirce's theory also suggests that reflexivity could be enhanced by exposure to certain social contexts and communities. He writes: "The domain of inwardness [i.e. reflexivity] is not fixed in its limits; the power and wealth of signs that I borrow from

others and create for myself determine the dimensions of my inwardness” (quoted in Colapietro 1988:115-116). This analogy suggests the “dimensions of inwardness”—the reflexive space—can be *expanded* by exposure to new cultural content.

Certain institutions relevant to young adults in U.S. society—such as higher education, religion, or the military—seem to indeed provide cognitive schemas people use to process and talk about stressful experiences (DiMaggio 1982; Lehmann 2014; Pargament 1997:144-147; Smith 2003a:69-79). Based in the work of Bourdieu (1990), and culture and cognition studies (Cerulo 2010; Lizardo 2004; Wood et al 2018), we understand schemas as ways of structuring perception and framing reality that people develop as they assimilate, adapt, and accommodate cultural models to their experience. They are a kind of working knowledge, in the sense that they arise in response to experience and direct future action. We theorize that cognitive schemas rooted in institutional cultures are employed by resilient young adults to make meaning from stressful experience; and exposure to institutional cultures thus “expands their reflexive space”—to use Peirce’s metaphor—as a mechanism supporting resilience.

This study’s aim is to illustrate the usefulness of this theory for making sense of resilience, using in-depth interviews with resilient young adults selected through an innovative outlier sampling strategy. We examine the cognitive schemas these outliers use to make meaning of discrete stressful events, and show how those schemas are rooted in the institutional metanarratives of higher education, religion, and the military. In this way we connect research on resilience to other work on culture and cognition, while contributing to a growing area of sociological research applying pragmatist philosophies of self and society (Emirbayer and Mische 1998; Joas 1996; Wiley 1994).

BACKGROUND

Resilience, Reflexivity, and Cognitive Schemas

Stress and uncertainty are pervasive challenges for many U.S. young adults (Silva 2012; Smith et al 2011), with far-reaching effects on their physical and mental health (Elder and Giele 2009; Johnson et al 2011). Research on resilience, as a process of maintaining better-than-expected psychological and emotional outcomes in spite of severe stress, has grown in recent years; and many scholars have called for more attention to the subjective and cultural sources of resilience (Bonnano 2004; McLeod 2012; Thoits 2010). One example is meaning-making, as expressed in personal narratives about indirect and unexpected positive outcomes of the stressful experience, which minimizes the negative emotional impact of stress (McAdams and McLean 2012; Pearlin and Schooler 1978; Wexler et al 2009). Yet to this point, meaning-making has rarely been connected to robust theorizations of the self, culture, and cognitive processes; and it is often treated as one of many coping strategies, without attending to its structure as an internal process that underlies behavioral coping strategies.

Pragmatist theories of selfhood and reflexivity, as well as theories of culture and cognition (Bourdieu 1990; Cerulo 2010; Lizardo 2004; Wood et al 2018), provide resources for addressing these issues, and understanding the cognitive and cultural bases of resilience. Building from pragmatists Mead and Pierce, Wiley theorizes reflexivity as an emergent quality of human selfhood, best understood as an internal conversation (1994:36). Reflexive thought is a conversation between three poles: the “Me,” which represents the composite of the self’s past experience; the “I,” which represents the situated self of the present; and the “You,” which represents the underdetermined,

imagined self of the future. Within this internal conversation, “The agent or I of the present interprets the history of Me of the past to and with the You of the future” (15). In other words, the three parts of the self in conversation with each other interpret past events and present conditions and project possible and desired futures. The openness of past interpretations and future projections creates room for the creative use of culture (Emibayer and Mische 1998; Joas 1996).

The concept of a cognitive schema also highlights how people perceive reality in a structured way, as they creatively adapt aspects of cultural socialization and apply it to specific experiences (Wood et al 2018; Lizardo 2004). Schemas are structures of thought and perception enabling people to interpret experience and arrive at a point of knowing where they are, what has happened to them, and how to move forward. They are interdependent, and always in dialogue, with communal narratives. Integrating the concept of schemas with the pragmatist model of reflexivity, we theorize that resilient people are able to give meaning to past and present experiences, envision possible futures, and develop courses of action relevant to the demands of their unique circumstances; and to do this they often use schemas adapted from their cultural contexts.

Peirce vividly describes how this works:

“When I enter into the inner world, I take with me the booty from my exploits in the outer world, such things as my native language, any other languages I might know, a boundless number of visual forms, numerical systems and so on. The more booty I take to that secret hiding place, the more spacious that hiding place becomes... the domain of inwardness is not fixed in its limits; the power and

wealth of signs that I borrow from others and create for myself determine the dimensions of my inwardness” (quoted in Colapietro 1988:115-116).

This fruitful metaphor of an inward “hiding place,” becoming more “spacious” as a result of semiotic “booty” taken from “the outer world,” implies that exposure to external culture can expand the internal space of reflexivity, and thereby provide new schemas for structuring experience. To use an analogy from painting or writing, this exposure is akin to obtaining a broader palette of colors or a larger vocabulary, which opens up new possibilities for creative interpretation. This more expansive reflexive space is then particularly useful in new or stressful situations that challenge normal functioning.

Resilient Young Adults and their Institutional Communities

In her analysis of the personal narratives of young people in the United Kingdom, Archer (2012, 2007) describes reflexivity as a process in which people “consider themselves in relation to their social contexts” (2007:4) and in light of their personal concerns. She argues that as global society has grown in complexity and interconnectedness, traditional and/or routinized schemas for perception and action have become insufficient for establishing satisfying and sufficient ways of life. The lives of modern young people are characterized by greater uncertainty and openness. They experience a broader awareness of potential concerns, projects, and ways of life, and a wider range of unpredictable and uncontrollable constraints and enablements (see also Silva 2012). Navigating this context well, and being resilient to stressful situations, places great demands on their reflexivity.

Given the pragmatist understanding of reflexivity described above, it seems likely that the most resilient young adults—those who are able to meet Archer’s “reflexive

imperative”—are also more likely to be connected to culturally rich institutions. These could include higher education, religion, or the military. Such institutions provide cognitive schemas rooted in rich collective narratives (Smith 2003a:69-79); and they often facilitate close ties between members that act as plausibility structures to reinforce those cultural narratives (Berger 1967:45-46).

More specifically, in terms of higher education, both the liberal arts curriculum and the social contexts of American colleges and universities provide meaningful and morally laden signs and narrative language, through which young people often interpret their pasts, presents, and futures (DiMaggio 1982; Kisida et al 2014; Lehmann 2014). Similarly, religious communities promulgate narratives of ultimate meaning in relation to the divine, and very frequently narratives of divine providence and godly love are employed when religious people respond to stress (Pargament 1997:144-147). If such meta-narratives coming from higher education and religion indeed guide talk and behavior for young people, then it is possible they also provide cognitive schemas for meaningfully interpreting stressful experiences, thereby minimizing the negative emotional impact of those experiences and supporting resilience.

Conceptual Model

The stress process model pioneered by Pearlin visualizes stress in terms of life events and chronic stressors (Aneshensel and Avios 2015); and it depicts resources—which includes social resources, personal resources like self-esteem, and coping behaviors like meaning-making—as mediators of stress on mental health outcomes. Societal and cultural factors influence both stressors and resources. For our purposes, we develop a conceptual model

complementary to this, but more focused on reflexive meaning-making and on resilience rather than mental health disorders like depression. The model shown in Figure 1 is therefore different but complementary to the stress process model, honing in on a *particular* type of outcome (resilience), and a *particular* coping response (reflexivity), as well as the cultural and cognitive bases of that coping response. It thus includes more schematic detail on the structure of reflexivity, since part of our goal is to provide better theorization and contextualization of what the stress process model has usually called “meaning-making,” and has grouped with other coping strategies.

Figure 1

We define resilience as *the ability to develop a satisfying and sufficient way of life in spite of severe stressful conditions and/or events*. According to Archer (2007:1-22), satisfying and sufficient ways of life are those that work, i.e., those in which what people want (their concerns) and how they attempt to get it (their projects and courses of action) are perceived as logically in line and feasible within their social context, and which result in consistently rewarding markers of success and reaffirmation. Resilience is found where this process is threatened by severe stress and yet persists. This aligns with Wheaton’s (1999:181) view of a stressor as “a condition of threat, demand, or structural constraint that, by its very occurrence or existence, calls into question the operating integrity of the organism;” and Bonanno’s (2004) point that resilience is the ability to “maintain relatively stable, healthy levels of psychological and physical functioning”...“when exposed to an isolated and potentially highly disruptive event.”

We depict this in our model as the co-presence of stressors and the development of a satisfying and sufficient way of life. The latter is shown as an arrow with a dashed

outline because it is both temporal and latent; yet it is also connected to objects more easily accessible through empirical methods, specifically indices of wellbeing and narrative interviews, as the figure also shows. We return to this in the methods section. We define reflexivity as *the capacity to consider oneself and one's personal projects in relation to one's social contexts*, again following Archer (2007) and Wiley (1994). Reflexivity is depicted as an internal conversation between the three poles of "I", "Me," and "You." It corresponds to the "domain of inwardness" described by Peirce, and it is also depicted with a dashed line to indicate its latent character.

On the left side of Figure 1 are institutional cultures and narratives they promulgate. Cognitive schemas, which again we define as ways of cognitively structuring perception that emerge from the interaction of reflexivity and shared culture, are developed from specific institutional cultures and applied within the reflexive space. These are the "wealth of signs" borrowed from outside that expand the domain of inwardness (Peirce, quoted in Colapietro 1988:115-116). Our empirical agenda to show how resilient young adults employ such cognitive schemas in their personal narratives, using them reflexively to make meaning of stressful events, as they work towards developing satisfying and sufficient ways of life.

DATA AND METHODS

For this study we employ a unique strategy, akin to systematic anomalous case analysis (Pearce 2002), in which we use survey data to identify 50 resilient outlier cases and then target those cases for in-depth interviews. Rather than focusing on central trends or averages among a population, this strategy highlights mechanisms most observable in

anomalous or outlier cases, which are also relevant for others. We used representative sample survey data to identify a sampling frame of resilient outliers and a comparison group of high-stress, low resilience young adults, and interviewed 50 of these young people: 26 from the resilient group and 24 from the low resilience group.

Because these interviews are linked to panel survey data, we can also produce descriptive statistics to further support our results. The survey data are from the fourth wave of the nationally representative panel study, the National Study of Youth and Religion (NSYR). As part of that study, the panel of young adults ages 24 to 29 were surveyed in the first half of 2013, as the fourth wave of panel data collection. More info on this stage of the project is available in Flory and Denton (forthcoming).

For this study, we obtained a preliminary version of the survey data in summer 2013 with 1,630 completed cases. From these cases we identified those who had experienced discrete stressful events, using three indicators: having been distressed by a family breakup in the past five years, having had financial hardship in the past year, and having been traumatized by a life event in the past two years. Within the stress and coping research, stress has been measured extensively and is often divided between discrete stressful events and cumulative lifelong stressors (Adkins et al 2009; Aneshensel 1992; Pearlin 1989; Wheaton and Clarke 2003). The NSYR cannot measure stress with the specificity achieved by these studies, so we focus on indicators of discrete events that are somewhat recent, and questions where the wording specifies the event was indeed experienced as stressful. We also only include those reporting at least two stressors.

Within this high-stress sample we then identified the resilient outliers based on their responses on several previously validated indices connected to coping and

wellbeing: the Life Satisfaction Index (author 2013), the Gratitude Questionnaire (McCullough et al 2002), the Meaning in Life Questionnaire (Steger et al 2006), and the Sense of Mastery Scale (Pearlin and Schooler 1978; Pudrovska et al 2005).³ The wording of indicators in the Life Satisfaction Index and Gratitude Questionnaire focuses on positive assessments of the respondent's present and past situations, while the Meaning in Life Questionnaire has a distinct future orientation, as exemplified by such prompts as "Your life often seems to lack any clear goals or sense of direction (negatively worded)." We summed these four indices into a single additive index of wellbeing with a total of 14 Likert scaled (0=strongly disagree, 4= strongly agree) indicators. The combined index ranged from 0-56 and was standardized, with less than 2 percent of cases lost due to missing data. Our resilient outliers scored at least one standard deviation above the mean on this index (N=76); while those in the less resilient comparison sample scored at least one standard deviation below the mean (N=114). The mean standardized wellbeing scores and other descriptive statistics for these two samples are shown in Table 1.

We acquired contact info from NSYR staff for these respondents and interviewed 50 of them, split between the resilient and less resilient groups, between August 2013 and

³ The Sense of Mastery Scale is usually used as a predictor of resilience, rather than an indicator of resilience itself; yet since we are using these scales to identify resilient cases for interviewing rather than establish correlations or time order for predictors and outcomes, the Sense of Mastery Scale is still helpful in this regard, given that a high level of mastery is likely still to be observed in such cases. Indeed, having a strong sense of mastery may be even more closely related to the kind of psychological activism or meaning making that we theorize to underlie resilience.

January 2014. To select these cases, we used a quota sampling strategy, where we sought to achieve a roughly 50-50 split of male and female respondents and a good representation of minority respondents (as table 1 shows, the larger sampling pools included only White and Black/African American youth). We also interviewed them in geographical clusters in order to minimize travel costs, though we made sure to include respondents from each major region of the country.

All interviews were audio recorded, conducted in public settings or respondents' homes, and generally lasted between 45 minutes and three hours. The interview protocol, available upon request, asked about family and childhood experiences, significant close relationships, stressful life events, group and institutional participation, romantic relationships, sense of wellbeing, and personal growth. The transcripts were then analyzed using Dedoose software, an online qualitative data analysis software program designed specifically for collaborative data coding. Dedoose allows for assigning weights to codes to indicate the degree to which the excerpt illustrates the coded topic, which we employed throughout our coding process, and which helped us to select the cases that most strongly exemplify resilience for inclusion in the results that follow.

Our initial coding scheme followed very closely from the stress and coping literature, with top-level codes for stress event characteristics, stress proliferation, coping resources, and coping strategies (Aneshensel 1992; Pearlin 1989; Pearlin and Schooler 1978; Thoits 2010). As we coded for coping strategies, and particularly for processes of meaning-making, we identified the role of certain cultural schemas rooted in institutional cultures. Echoing past research, we saw how the resilient group was more adept at crafting a culturally meaningful narrative of their lives and the role of stress within it; but

additionally, we also identified statements that seemed to refer to the prevailing shared narratives of religious, educational, and military institutions. Thus, later on we coded more thoroughly for institutional involvements, and language that seemed to reflect the cultures of those institutions. In this way our approach follows abductive analysis (Timmermans and Tavory 2012), working back from unexpected findings to craft a luminous interpretation, in dialogue with what is already known and theorized.

In the results below, we highlight specific personal narratives rather than presenting a sampling of illustrative quotes from across the interviews. The benefit of focusing on specific cases—or in other words, sociological portraits of individuals among those interviewed—is to “capture the richness, complexity, and dimensionality of human experience in social and cultural context, conveying the perspectives of the people who are negotiating those experiences” (Lawrence-Lightfoot and Davis 1997). We considered a dozen different cases for inclusion, but given limited space we decided to focus on four positive (i.e. resilient) cases, and two negative cases for comparison. We chose these cases by conversing with each other over many months and carefully analyzing coding results in the wider contexts of the interviews. This strategy respects the context of the interviewees’ narratives, as well as the interview moment in which the interviewee and the researcher engage each other. Since the first author conducted half of the total interviews, we also focus on those they conducted to add richness. To complement this depth, we start by providing broader descriptive survey data, and we end by summarizing the themes found across many interviews.

RESULTS

Survey Data Results: Describing the Sample

If certain institutional involvements support resilience—regardless of the mechanism—then the resilient interviewees should have higher rates of involvement in such institutions than their counterparts among the less resilient interviewees. This is what Table 1 shows. Using survey weighted t-tests of statistical significance, calculated at the 99 percent confidence level, we show that the resilient group are more likely to be regular (i.e. more than once or twice a year) attendees at religious services and to have earned a bachelor’s degree or higher. We use these indicators because they are relatively straightforward to interpret as dichotomous measures of institutional involvement.⁴ Unfortunately the data do not allow for similar analyses of military involvement, since less than 1 percent of the sample report it. However, as described below, we are able to provide supporting evidence on military involvement from the interview data.

⁴ The religious indicator has the advantage of being specifically about regular engagement with organized religion, and it is meaningful for groups across different affiliations (or no stated affiliation at all) (Manglos et al 2016). The education indicator has the advantage of showing enough involvement with higher education to have earned a four-year degree. Obviously these indicators do not capture everyone with any involvement in organized religion or higher education, and they gloss over wide variations in degrees of involvement and investment. Nonetheless, they are meaningful and widely used indicators that provide an initial sense of the correlation between institutional involvement and resilience. More robust statistical analyses of these relationships are beyond the scope of this paper.

Table 1

To further support our theory that institutional involvements have independent effects on resilience, we also look to see whether these two groups are in other ways similar—or in other words, whether they are meaningfully different on other dimensions that could be driving the relationship. One possibility is that although the two groups all have higher levels of stress, the less resilient group might be characterized by the very highest levels of stress, or by particular types of stress. However, we do not find convincing evidence for this, beyond some small substantive differences that are not statistically significant. For example, 83 percent of the resilient group reports financial hardship compared to 87 percent of the less resilient group, but this difference is within the 99 percent confidence interval for the two estimates, meaning the t-test shows it as a non-significant difference. The same is true for the other indicators of stress.

Another possibility is the resilient group is different in terms of race, gender, or social class. It is beyond the scope of this paper to do a conclusive test of this, but as a preliminary test we compare the two groups in terms of reported gender (measured as male vs. female), race/ethnicity, and whether the respondent's resident mother in the first wave of the survey has any college education, which is used as a proxy for social class in past studies (Manglos 2013). Our interview sample had no Latinx or Asian young adults (10 and 4 percent of the overall sample, respectively), so we test if they have higher percentages of Black/African-American respondents. The results of that test are similar to the others: a higher percentage of the less resilient group is Black/African-American, but this difference is not statistically significant.

Interview Data Results: Cognitive Schemas and Cultural Narratives

As we expected given our sampling strategy, the young adults we interviewed ranged from thriving and aspirational to depressed, resigned, and/or uncertain of the future. Yet when interviewing those within the resilient group, we noticed a tendency towards particular ways of talking about past stressful experiences. As suggested elsewhere (Silva 2012), resilient young adults are often creative in making their stressful or negative experiences meaningful, whether viewing them as sources of strength, challenges that forced them to become better people, or bases for deeper social connection with others.

Yet going beyond that prior work, we also saw how their schemas of meaning-making seemed to rely on the cultural narratives of specific institutions. In other words, the stories they told about themselves and their stress, and the schemas of meaning they employed (i.e. strength vs. weakness, social connection, personal growth) often made reference to larger narratives associated with educational, religious, and military institutions. In the language of Peirce, these institutions did indeed seem to provide “a wealth of signs” that could be used to make meaning of stress and in this way expand their “domain of inwardness.”

One example was James, a white, 27-year-old analyst living in the Northwest, who grew up with severe dyslexia. His dyslexia made schoolwork difficult, since he was “seeing the world so differently,” and he often missed school for medical reasons. He did not learn how to read until age 14, and as a teenager, his only friends were other “outsiders.” He came from a well-off family that was able to afford a good education and treatment for his dyslexia, and he learned how to harness his unique way of processing and apply himself to technical subjects like engineering and math. Yet during

adolescence he also had other stressors, including an autoimmune disease that he barely survived, and the divorce of his parents following years of emotional abuse by his father.

When we met him, however, he was clearly doing quite well, both materially and psychologically. He had started a successful data analysis consulting business, had an annual salary approaching six figures, and had a net worth of over \$2 million. He was now proud of his dyslexia and his ability to overcome it: “For me, I wear it like it’s a badge of honor.” He was also a dedicated philanthropist, donating thousands each year to various causes. He was on the board of two charities, one that focused on providing resources for teens to finish high school, and another that gave college students immersive experiential learning on systemic poverty and other social problems.

James had a strong identity as a survivor—the words “survive,” “survived,” and “survivor” show up about a dozen times in his transcript—and that identity helped him to see the good in his stressful experiences, that they made him who he is. To elaborate this identity, he used spiritual concepts borrowing from several religious traditions. He told us how, after his serious illness, a friend brought a rabbi to see James in the hospital. That rabbi taught him the concept of *hineni*, which he interpreted to mean, “That God was really responsible for what He did or what It did to us, as individuals and as societies. So God needs to be accountable for that. But at the same time, if you learn some lessons, you’re going to come out stronger at the other end, so you understand it...It just means, here I am, throw what you got at me. I stand ready. I’m going to get through this.”

His identity as a resilient person was further solidified in therapy. His therapist challenged him to ask what “gifts” he received from his illness, and he came to see it made him appreciate the joy in daily life all the more, as well as teach him that, “I’m

going to survive [anything] and I'm going to come out on the other side closer to the people I love." Once again, he brought in religious ideas to explain this experience: "I found a Buddhist philosophy that's, 'Let us rise up and be thankful for we learned a lot today. And if we didn't learn a lot, at least we learned a little. And if we didn't learn a little, at least we didn't get sick. And if we got sick, at least we didn't die. And if we died, we're no longer suffering. So let us all rise up and be thankful.'"

James talked at some length about his spirituality, noting that, "I had to get really philosophical and metaphysical at a young age, because I got so sick. I had to ask a lot of questions that I think a lot of people don't really start delving into until they get older. And that was another great gift from it." He did extensive reading of religious and spiritual texts from many traditions, and meditated regularly to manage anxiety.

James also studied anthropology in college, and applied the concept of "social norms" to his experience—i.e. as a dyslexic, he was automatically outside of social norms and expectations, and so he gravitated to others who also stood outside and were the victims of "othering." This social consciousness pervaded his later work: as an investor in entrepreneurial startups, he required they have minimal (or positive) environmental impact and some community benefit. He also saw his dyslexia as an advantage for assessing such projects: "I essentially trade my time and my weird brain activity...and spend hours doing research."

It seemed, then, that James' resilience was at least partly rooted in an ability to frame himself and his stressors a particular way, using ideas about "surviving" and strength, about what dyslexia is and how it can be harnessed, and about the "gifts" that stress can give. These ideas were at least partly based in the teachings of Judaism and

Buddhism, as well as humanist ideals of scientific research and philanthropy, which he adopted and adapted throughout high school and college.

Another resilient case was Shanique, a 27-year-old African American woman living in Georgia. During her first semester of law school both of her parents were diagnosed with cancer. As their only child, she handled most of their care, which meant she had to postpone her studies. After their health conditions improved, she restarted law school, only to find out her mother again had breast cancer. During this time her maternal grandmother also passed away. When we talked to her, she still had major concerns about her mother's health, though she was back enrolled in law school.

We met Shanique at a coffee shop near her law school campus, on a busy strip of student oriented restaurants and businesses. She was wearing a university T-shirt and shorts and carrying a backpack, like many of the other college students there.

Nonetheless, as we talked, it was clear she did not see herself as a "typical" student:

I don't have time to play games anymore. My friends are going out to the club and I'm like, there's real life happening, we're too old for that, we need to handle business in life... I'm like, you enjoy life by making sure your bills are paid. You enjoy life when you know your health is okay.

According to Shanique, the illness in her family made it impossible for her to simply "enjoy life" as her friends did, and constrained certain plans she may have had for her 20s. Yet she interpreted this positively, because she was better able to "handle business in life" and thereby attain certain markers of maturity that many her age still had trouble with. Rather than lacking focus or being preoccupied with partying, she had a clear goal to become a criminal defense attorney providing representation to the underserved.

This life goal was rooted in both her past family experiences and her education. She said she wanted to do criminal law, because “I think that, if you had made bad choices, you’re not always a bad person... We need to make it an even playing field for everybody and also a lot more people in that area can’t afford representation.” She told us about people she knew in high school that got in trouble and were severely punished, in part because they didn’t have the legal system and couldn’t afford a good lawyer. She then talked about how her criminal law class in college helped her make sense of these cases as part of a larger legal system in which leniency is given selectively, and punishments don’t always match the crime. She decided to become a criminal defense attorney to bring more fairness into the system.

Beyond that, she wanted to start a shelter for “under-privileged youth,” who she believed desperately needed education to support better decision-making:

“A lot of people make bad choices because of the lack of education. So I want to set up tutoring and help...and I can also give free legal advice to those who need it...I feel like, they don’t feel like they have a different choice because they’ve never seen a different way so if I can...show them, hey, you don’t have to do this, here’s something else, I think it can save a few lives.”

Her college education thus helped her see the problems of such youth as symptomatic of larger social injustice. It also gave her the cognitive tools to envision herself as part of the solution—as a contributor to social progress—because her life experiences made her intimately acquainted with such injustice, and more serious and mature than the average 20-something.

Shanique was also very religious. Her father was Catholic and her mother was Protestant, so she was raised in both religious traditions. She said prayer was one of the ways she coped with stress in her life, especially her mother's second cancer diagnosis. She often referred to the idea of divine providence: "I'm not really worried because I know that God has it under control. I'm okay with it. I know [my mother] has to go through this process to get wherever God asks her to go. Whereas more people will be worried, I know this is just part of the process."

She also saw evidence of divine providence in other areas of her life, such as getting into law school and coping with her grandmother's death. While she at first felt angry at God for the death, she came to understand that "He's the one who allowed her to be in our lives." Her application of this narrative of God's provision, based in her religious involvement, allowed her to reinterpret her pain as something meaningful, and to imagine a future building from her painful yet meaningful past experiences.

Similar cognitive schemas were applied in the personal narrative told by Shelby, a 26-year-old mixed white and Native American single mother who worked as a convenience store cashier. The stressors in her life were quite intense, going far beyond what was picked up by her survey responses. In the years before the interview, she was sexually assaulted, had serious medical problems that required surgery and a hospital stay, became pregnant unexpectedly, and endured an abusive relationship with her son's father. Finances were also a constant stress for her, and when we met her, she was living with her best friend's family because she could not afford rent. She also did not have primary custody of her son, and only saw him every other weekend.

Yet in spite of everything Shelby had been through, she was still optimistic about the future. Her stressful life experiences had been difficult, but perhaps surprisingly, she did not think she was “any less happy” because of them. She stated, “I think that stress can be very overwhelming sometimes and can make you feel saddened and whatnot. But... it also teaches you what you can and can’t handle. And if it’s something that you can’t handle, then I’ve just taught myself to just kinda step out of it and re-process it.”

These statements suggested Shelby was aware of how “stepping out of it” and “re-processing it” were important strategies for minimizing the feelings of sadness and helplessness stress can produce. They also showed she believed that past stress “teaches” her to identify her own capacity to handle certain situations. In other words, she was practiced at processing stress cognitively in an effective way.

Throughout Shelby’s narrative, the schemas she used to frame her experience had direct connections to her educational and religious contexts. She managed to attend and graduate from a four-year college through hard work and moments of support from extended family. While in college, she studied psychology and volunteered with a group dedicated to advancing awareness about violence against women and encouraging healthy relationships among students. She hoped to continue to do work in this area once she got more established financially. She told us that “growing up in a domestic violence situation in the house” and being in an abusive relationship herself as an adult made her well suited to helping others in similar situations. However, leaving that situation and going to college was essential for achieving that goal; according to her, it was only during her freshman year of college that she gained some perspective on her situation and began processing all she had been through as a child.

Like Shanique, therefore, Shelby talked about her college experience as pivotal for her personal development. It had not so far paid off in terms of finances or work, but it was invaluable for the schemas it provided her to make meaning of her past, present, and future. By interpreting her own past stressful experience as a benefit for helping others in the same situations, and obtaining a B.A. in psychology as a result, she creatively employed cognitive schemas about the sources and potential solutions for social problems to interpret her experience and construct a sense of purpose.

Religious institutions were also important to Shelby. She had a rich, albeit non-traditional, religious faith. She did not have a strong affiliation but she did have “my own walk with my own god,” and she relied on the narratives of divine providence that originate within Christian culture. She talked about how “everything happens for a reason” and when asked about whether she would want to get married in the future, she said yes, but only if “God feels that that’s the person that I need in my life and I can benefit them as well.” In this and other places, she revealed her reliance on the metanarrative of a loving God providing what she needs. While her involvement in organized religion was irregular, the metanarrative of divine providence served as a source of comfort and assurance for her.

We also found evidence from other cases that military service, although less common overall, also provided cognitive schemas for making meaning of stress. Ryan was a 27-year-old white college student living in the Northeast, who enlisted in the Marine Corps at age 22 after a very stressful period in his life. His parents divorced when he was 18 due to his father’s long-term drinking and gambling problems. His best friend was killed in a drunk-driving accident and two other friends died of heroin overdoses. To

cope with these events, Ryan first started abusing drugs and alcohol himself, but then joined the Marines to escape the abuse cycle.

Ryan truly enjoyed his time as a Marine, although others thought he was “crazy” for liking it, given its demanding nature. He believed the military helped him mature and set him up for success. Because he was several years older than most of the others who joined when he did, Ryan quickly became a leader in his unit, and was promoted to sergeant. He also became someone others would come to with personal problems:

... during my time in the military, I was very, I'd like to say selfless, where I was very much like working with a lot of younger Marines... they're right out of high school, so I was working with them a lot. So, you know, I just wanted to keep going to school and then working with them I just, like right now my study [in college] is actually juvenile and family justice, criminal justice, so I'd like to eventually work with kids out of high school; like a lot of these kids came to me with problems and stuff like that, and I was able to relate with them because of the stuff that I had been through.

His own experiences as a self-described “punk kid,” combined with the mentoring and counseling he did while in the military, inspired him to get a college degree and work in juvenile criminal justice. He believed joining the Marines rescued him from a cycle of drug use and depression and put him in a unique position to assist others. His view of himself as “selfless” during his military service was a cognitive schema rooted in an institutional culture that valorized self-discipline and maturity. This cultural narrative allowed him to see his difficult experiences in youth as a necessary part of becoming a positive influence in the lives of other young people.

What did it look like when young adults did *not* seem to engage in such reflexive meaning-making around their stressful experiences? One young woman from our less resilient comparison group, Cindy, was a good illustration of this. In her interview she recounted numerous cumulative stressors, including long-term struggles with mental health disorders (including depression, anxiety, and bipolar disorder) and self-harm, as well as her mother's serious medical problems and a difficult relationship with her father. She had a daughter of her own, but was separated from the father, and did not have steady work. She was living with her parents and having trouble functioning on a daily basis, by her own admission.

When we talked to her, she seemed to find it difficult to draw positive connections between the stressful events she endured and her current or future life. She told us she did not feel like her life was on the right track, and she felt "very sketchy" about what her life might look like in five years. She said that it is only "necessity" that motivates her to do what she needs to do on a daily basis, and when asked if she has any professional goals, she stated, "Bad as it sounds, no." Her only plan for her life in the next five years is to get a job: "I don't care what kind of job I have, as long as I have a job." She also said she would like to move out of her parents' house, but was afraid she "would not be able to handle [my daughter] on my own."

Thus, Cindy seemed to have difficulty making the stress in her life cognitively meaningful and envisioning a positive future, in stark contrast to James, Shanique, and Shelby. Several times during the interview, which took place in a café, she seemed overcome by negative emotions, from sadness about the past to trepidation for the future. At one point in discussing the death of her younger brother years ago she asked to step

outside to collect herself, which suggested that her emotions about the incident and its effect on her family were still very raw.

As her interviewer, I (the first author) couldn't help but compare the experience of talking with her against the experience of talking with Shelby weeks earlier. They both had led very difficult lives. Yet I left Shelby with a sense of inspiration and optimism, and I left Cindy wondering if our conversation had done more harm than good; and one difference between them seemed to be Shelby's ability to interpret her experience in terms of cognitive schemas rooted in the cultures of higher education and religion, which were notably absent from Cindy's narrative.

Kyle, a 23-year-old white man living in the Midwest, was another less resilient comparison case, who also showed no evidence of connection to such institutions. Several months before our interview, Kyle had hit rock bottom due to drug and alcohol addiction. On a particularly bad night, he broke into a house looking for tools he could sell to support his addictions. He spent a couple of months in jail and was eventually put on probation. At the time of his interview, he was living with his girlfriend and taking care of her children, since he was not working. He never attended college and was not at all religious; and his social connections prior to his arrest were mostly other drug users.

Being in recovery, Kyle certainly engaged in some reflection on his life. He took responsibility for the poor decisions he made and identified certain reasons for his negative experiences. He recognized that relationships with friends who abused drugs and alcohol contributed to his problems, and so he severed such ties. Late in the interview, he stated, "I was being really irresponsible, and realize I'm getting older. I'm twenty-six, about to be twenty-seven. I don't want to be one of those guys in and out of jail his whole

life.” He understood some changes were necessary in his life and he had begun making these changes, such as being in long-term relationship with a stable, supportive woman and committing himself to staying clean.

However, Kyle still remained “stuck,” as he described it. His present concerns, such as meeting his probation requirements and caring for his girlfriend’s children, were pressing and took up the majority of his time. When asked about whether he had tried to make new friends since shutting out most of the people he knew when he still used drugs, he stated, “Not so much. I’m still in the baby steps, still just getting over triggers and stuff like that.” He said that he did not “really have anything set right now” for goals within the next five years; and saw himself as “kind of still drifting.”

Like the conversation with Cindy, the interview with Kyle was emotionally troubling. He was visibly fragile and shaky—I (the first author and interviewer) would have known, even without him telling me, that he was in recovery from addiction. There was more optimism in his narrative than in Cindy’s, given his recent positive transitions, but he also seemed very much in the balance, at a point where both relapse and full recovery were feasible outcomes. He was certainly not at the point where he could cognitively frame his past in positive terms and envision an inspiring future, the way that James, Shelby, and Shanique did so effectively.

Stepping back from individual cases, we saw connections to two major cultural narratives within the schemas employed by the resilient outliers, associated with educational and religious institutions, respectively. First, as suggested already, we often saw them employ a framework of *social justice* or *social progress* to understand their stressful events. In other words, they connected their stressful experiences to broader

social ills, and saw themselves as a player in working to solve those social ills and enact progress, due to their personal experiences with the issue. Crucially, their understanding of such broader social ills was almost always rooted in their educational experiences. So, for example, Shanique's courses in criminal justice gave her a framework of social progress in the legal system through which to view her experiences with young people in the Black community, *and* her personal life experiences with illness in the family. The latter experiences made her more mature and serious than others her age; the former experiences made her well situated to understand and to help people victimized by the criminal justice system. She could thus frame herself as a player in such social progress, and see her stressors as essential pieces of her history making such a role possible.

Shelby's narrative illustrated a very similar cognitive framing of her stress, though her particular framework of social progress had to do with psychological and emotional support for abuse survivors. Likewise, James saw himself as a dyslexic-outsider-turned-researcher-and-investor, as well as a survivor and a philanthropist, and this self-understanding was made possible by his stressful experiences and how he responded to them, as well as the skills and the social consciousness he developed in college as a dual major in anthropology and molecular biology.

Second, we often saw resilient young people employ a framework of *divine providence* connected to their religious involvements. This is not to say that they were all religious in a traditional sense; but in line with other research on young adult spirituality (Pearce and Denton 2011), many believed in some kind of powerful and loving divine person. They often claimed they could trust the divine in stressful times, and often attributed a positive intention to the divine working through their stressful experiences.

This was clear in both Shanique and Shelby's cases, as they explicitly used language like "God is in control" and "Everything happens for a reason." Although James' framing of divine intervention was more complicated, he still attributed many of his experiences to God and noted how those experiences only made him stronger.

Finally, Kyle's interview was suggestive of cognitive schemas associated with the culture of the military, and specifically a narrative of *self-discipline*. Kyle saw himself as stronger and better equipped to lead other young people because he had such experiences and engaged in destructive behavior for a time, but was then able to change his habits in the institutional context of the military. He therefore learned a degree of self-discipline that would not have been possible for him without having those stressors to begin with. Thus, the military ethos of self-discipline gave him a way of re-framing negative experiences in a positive light and mitigating their negative emotional impact, just like the narratives of social progress and divine providence did for the others above.

DISCUSSION

Our aim in this paper has been to present evidence of how resilient young adults use cognitive schemas to make meaning of stressful experience; and how these cognitive schemas reflect institutional cultures, as a mechanism linking institutional involvement and resilience. Borrowing from the theories of Peirce and Bourdieu as developed in the work of recent cultural theorists, we framed this process using the metaphor of a "reflexive space" that is "expanded" through access to a "wealth of signs"—or in other words, through cognitive schemas that emerge in relation to the cultures prevailing

certain social contexts. We then tested this theorization against evidence from strategically selected resilient outlier interviews and descriptive survey data.

Specifically, we find from the survey data that our resilient outliers are indeed more likely to have earned a B.A. or higher and be regular attendees at religious services, when compared to both the less-resilient interview group and the larger sampling pool. Yet the degree and type of stressful experiences they report is not different from those other groups, and they are not statistically different in terms of basic measures of race, class, and gender. We then find from the interview data that certain cognitive schemas applied to stressful experiences are indeed more common in the narratives of the resilient young adults, as compared to the others. These schemas seem to reference a higher education-based narrative of social progress; a religious-based narrative of divine providence; and—for one interviewee—a military-based narrative of self-discipline.

These findings support past work, but we go a step beyond earlier studies by bringing different theoretical conversations together in a fruitful way, as well as in the use of linked survey and interview data and an innovative outlier sampling strategy. Like the many studies that have looked at resilience from a narrative perspective, we find that the stories young people tell about themselves, their pasts, and their future are important for minimizing the negative emotional effects of stress (McAdams and McLean 2012; Silva 2012; Thoits 1994). Similarly, our study corroborates others about the cultural content of major institutions like higher education and religion, and how they shape young adult selfhood (Dimaggio 1982; Lehmann 2014; Smith 2003b); Yet here we have also developed and tested a specific mechanism linking these two bodies of work, and identified some of the specific cultural content that resilient young adults seem to find

most relevant and useful for interpreting stressful events. We have also developed a conceptual model (figure 1) that could be adapted to other populations and contexts.

Ultimately, we see this as an improvement on the framing of meaning-making as a coping strategy, common in stress process research. Although not contradictory to our findings, we would argue that such a framing fails to fully represent the structure of reflexivity, and the primacy of reflexive thought for making certain behavioral coping strategies possible. We believe our findings show that resilience is rooted in cognitive acts of interpretation and projection that do indeed make events meaningful, but also do (and are) more than meaning-making, particularly in how they creatively apply specific cultural schemas and project future possibilities for action. Put differently, while the stress process model has long established that people often make stressful conditions meaningful and this matters for their outcomes, in this study we offer deeper insight how and why meaning-making happens and who is more likely to do it effectively, as well as the larger cultural and cognitive dynamics in which it is embedded.

An important analytical question arising from our argument is, how well do the *externally* expressed narratives as told in interviews reflect the cognitive schemas that young adults employ *internally* within the reflexive space? There is certainly reason to be skeptical that the two are identical, especially when we are working from retrospective accounts told in the somewhat artificial situation of the interview. Such settings can often have the effect of demanding a kind of justification or rationale from people about past behavior that at the time, they may not have framed in the same terms (Martin 2011:18ff.). Prompted in this way, the young adults in our sample may have reached for certain justifications they thought would make sense to us as academic interviewers, and

the “more resilient” are better understood as the more adept at accomplishing this. So, for example, Cindy may have simply been less able or willing to tell a convincing story of resilience in the setting of the interview than Shelby, which would mean that the difference is more in their use of discursive schemas—how young adults talk to others such as interviewers about their lives—than cognitive ones, per se.

Yet while we acknowledge these points, theories of reflexivity give us good reason to expect a strong connection between how people talk about their experiences and how they frame them cognitively. Archer (2012) discusses the interview situation as an indirect expression of reflexivity in which another person—the interviewer—enters into the internal conversation as interlocutor. The self is both object and subject, following the I-me-you structure; and it is engaged in interacting with other conversation partners. Thus, as Wiley (1994:100) argues, “reflexive language is isomorphic with the reflexivity of consciousness...[and] the data of language also help to explain the data of reflexive consciousness.” In other words, the internal conversation is shaped by past conversations with others; and the discursive schemas young adults are able to employ (that we actually observe) are rooted in the cognitive schemas they have access to in their internal conversation (that we believe have explanatory relevance but cannot directly observe). For that reason, we consider such in-depth interviews strong instruments for accessing knowledge about the workings of the internal conversation.

Our study does have limitations inherent to qualitative research. The analytic process is iterative and interpretive, and thereby complex to evaluate. In particular, there is a fine line between selecting illustrative cases to make a convincing argument, and the possibility of downplaying cases that do not support the thesis. We have worked to

counteract this and achieve valid interpretation of the data through repeated readings of interviews, frequent conversations, and critical self-evaluation throughout the process.

Nonetheless, we find value in identifying an initial link between those cultures and the cognitive schemas of resilient young adults; and we hope to see more work linking institutional cultures to wellbeing using robust theorizations of reflexivity and selfhood (McAdams and McLean 2012). This work is somewhat developed in the field of sociology of religion, where the link between religious beliefs and wellbeing is a major topic of interest (Pargament 1997; Sherkat and Ellison 1999), but it has not often (to our knowledge) been extended to include other forms of institutional culture, or been brought into dialogue with cultural theories of creative action and cognition.

Certainly, the sources of resilience are complex. Even in our sample, there might be confounding factors in families, neighborhoods, and other aspects of the social context that set members of the first group on a positive trajectory much earlier on. We also recognize that higher education, religion, and the military are multifaceted social phenomena. This means they likely shape young adults' stress process outcomes on various dimensions, and their influence can be framed in many different ways. Our goal, however, has not been to isolate any single efficient cause of resilience or reliably predict it in certain sets of cases. We agree with other scholars that human creativity in response to problems is highly complex, and equating explanation of situated action with prediction is problematic (Martin 2011:28-33). Rather, our goal has been to focus on a cultural and cognitive mechanism underlying resilience for U.S. young adults; a process often identified as meaning-making, but which we hope can be even better understood in terms of the dynamics of reflexive thought that Peirce so vividly described.

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