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What if Your Father Were a Chickadee: What I Observed Today

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In any attempt to make sense of the natural world, field naturalists are subject to observational bias and must consider their own interpretive process as they record and interpret field notes. Recounting a narrative about fledging chickadees, the author utilizes a six-step model for analysis of field experience. The five levels of representation are experienced recursively and involve a primary experience that is first attended to, shared, transcribed as field notes, analyzed, and finally offered for others to collaboratively read and respond.

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Introduction

Naturalists keep field notes for a variety of reasons. They may attend to the intimate details of a single species, piecing together a behavioral ecology and natural history. At other times they may want to document species' presence and abundance, or widen their attention to landscape-level ecological descriptions. Sometimes they are interested in phenologies that offer insights into the broad effects of seasonal cycles on biological phenomenon. Alternatively, naturalists may wish to chronicle a field experience so they might share their narrative of a personal experience, and, in so doing, offer future generations a glimpse of their lived world.

But to what extent can investigators remain neutral and objective as we use talk, text, interaction, and interpretation to tell our stories? Because narrative often “deals with the vicissitudes of human intentions” (Brunner 1986, p. 16), it implies some degree of interpretation. In this sense, narration raises issues of human bias and objectivity.

Kramer (2011) suggests that, “Narrative by nature is relational, and recording events, thoughts, speculation and anecdotes as well as quantified data brings our curiosity back from the field. Somewhere in there is a story, a really good story, that you will repeat time and time again” (p. 127). To make sense of my experience with fledgling Black-capped Chickadees, I cast it in narrative

form. In an effort to preserve my narrative without fracturing it through dissection, I model this analysis of primary experience with chickadees after Riessman (1993), who outlines six levels of representation in the qualitative research process: primary experience, attending to experience, telling about experience, transcribing experience, analyzing experience, and reading experience.

These levels of representation are experienced recursively, meaning they overlap and can be repeated indefinitely. The six levels of representation are not meant to be a linear prescription for field research. Rather, I think of the six levels as a description of the iterative research process that begins with primary experience and continues through a series of transformations that lead to collaborative interpretations.

Primary Experience

I enter my backyard garden anticipating the reenactment of my morning practice, digging in the soil, sipping coffee, and watching birds. This is my phenomenological lived world of immediate, everyday experience (Riessman 1993). I come here to be one with nature, alone in my thoughts as I weed the garden. I observe passively, basking in the primary experience – warmth, moisture, fragrance, and vocalizations – birds are calling from somewhere close by. As a naturalist I have a difficult time maintaining my separateness; turning

off my analysis of the world around me remains a hurdle.

Attending to Experience

I quietly hoe my weeds until an urgent “tseet” pulls my attention to the apple tree. I begin to make observations, reflect, and make sense of my immediate world. Peering out in multiple directions, a young chickadee, neck craning, extends its entire head from the nest cavity. The entry hole is delicately positioned in a low bough, one-and-a-half meters above the ground. I can almost see into the cavity, but the entrance is filled with a hatchling chickadee.

Reflecting back over the last few weeks, I recall watching the pair excavating this cavity. I also remember reading the *Annual Cycle of the Black-capped Chickadee* by the venerable Eugene Odum (1941), who is known for his pioneering work on ecosystem ecology. He reported that most chickadees fledge in the early morning. Could this be the day? Returning my attention to the present, I watch as the nestling thrusts forward into the air, gliding to the nearby cedar fence. I know its “tseet” notes are reserved as a rallying call. Will the remaining brood soon follow?

I attend to this experience, in which I make certain phenomena of sound and vision meaningful (Riessman 1993). I can’t help but speculate about this fledgling: Its vocal repertoire as expressed is minimal, and the bowed condition of its tail and flight feathers suggests cramped quarters. I wonder how many chickadee siblings shared the last 13 days tucked in this small nest cavity.

I am now fully engaged, actively choosing what to see from this rapidly changing reality. I watch like a happy father as three more fledglings take their first flights. I know chickadee clutches average seven eggs so wonder how many more fledglings will venture forth. Finally after several minutes, another fledgling emerges and clumsily joins its four perched siblings forming a row of wing-stretching fledglings on the cedar fence.

This is an important moment, for once out of their cavity, chickadees do not reenter their nest (Smith 1993). The fledglings preen in the sun and chatter “seese,” contact notes that Smith (1993) has documented, which help create flock cohesiveness. I am an observant ornithologist, watching and listening predominates over the collection of other

sensory stimuli. I am making a “selection of the totality of the unreflected on, primary experience” (Riessman 1993, p. 9). As a naturalist, I vacillate between observation and reflection.

Several minutes later the chickadees are aerodynamically ready; they fly from the fence one by one, passing so close that I can hear their flight feathers fan the air. They undulate across the garden, landing in the *Arbutus*. Without warning, the last chickadee attempts its landing on the crowded perch, misses and flies retrograde, miraculously landing on a fold in my T-shirt. I stare down in subtle amazement, elated by this surprise encounter. Before I can decide what to do next, I find my intellectual curiosity dominates my action response.

Time seems suspended as we regard each other. Our silent scrutiny transitions as the fledgling looks up and begins a series of wing-quivering vocalizations, “dedee-dedee-dedee” in quick succession. I know from past observations that fledgling chickadees frequently vocalize begging “dee” notes while they are fed by both parents. Is the fledgling possibly soliciting me for food?

As another 15 seconds passes, I practice standing still as a statue gazing into the chickadees eyes before the fledgling finally flies to rejoin its siblings. I follow closer to inspect their protected communal perch within the dense foliage. Next, I watch as one of the chickadee adults joins the fledglings and escorts them to a large dense rhododendron. As the flock exits the yard, I am compelled to share this story with my family and a friend before opening my field journal, where I capture the experience in words and drawings.

Telling about Experience

I enter the house excited to share this story with my family. I reenact the events in a well-ordered sequence. Increasingly making sense of my experience as I proceed with the story, I feel trapped by the limits of my language. I begin to act out the story, standing straight and still, my arm frozen in mid-reach, longing to touch and hold the fledgling. I try to capture the essence of the experience for them by recounting the chronological episode in words and actions. I cannot give voice to the chickadee, so I make decisions of what parts of the experience to represent. The flavor of the air, the cast of the sun, and the texture of the moment become important

components of this family rendition. We talk and listen, producing a new narrative together. My young daughters wonder why I didn't try to touch, hold, and feed the fledgling, because from their perspective, such a young bird must be cared for and fed. They reprimand, "Obviously, it was asking you for food, Dad. Why didn't you try to feed it?"

I relate the story to a friend whose birding experiences inform our discussion about chickadee family groups, gender differences, and juvenile dispersal. The hierarchical nature of chickadee social units is well chronicled in the literature (Smith 1993). In spring, winter flocks break up, accompanied by increased aggressive interactions as pairs establish separate breeding and nesting territories.

I tell my friends about watching the chickadee pair excavating their primary nest cavity, initially throwing tiny debris out the entrance that forms a woodchip fan on the grass below. Both birds excavated for seven days, eventually carrying large mouthfuls of wood chips several meters from the nest. Next, they brought quantities of soft materials into the cavity. In four days the nest construction stopped. I report that I commonly saw a chickadee peering out of the cavity. I had assumed the female was laying a clutch of eggs because this period was accompanied by frequent courtship feeding by the male. Two weeks later I saw food-carrying adults enter the cavity and then soon leave carrying small white fecal sacks containing fledgling solid and liquid waste.

I recount to my friend that the morning the chickadees fledged, I was not prepared for one of the fledglings to actually land on me. Though my non-interfering biologist voice dictated that I assume the role of a simple perch, I longed to reach down and touch this bird. When I neglected to move, vocalize, or produce even the smallest spider-egg morsel, I conjectured that the chickadee simply lost interest, turned, and entered the air to join its siblings. As the roving cohort moved beyond my view, I could finally recount my story to my family before writing field notes and reflecting on this provocative behavior.

My friend and I begin to reflect more generally on chickadee ethology, and we inevitably acknowledge the conversational limits imposed by our own unique social contexts. Though we are both bird enthusiasts, I am eager to share my professional interest in science as a way of knowing

the natural world. We discuss what constitutes a reliable observation. We agree that what a bird does and why it does it are quite different things. We speculate on the role of inference and interpretation in evidenced-based discourse and "sense-making." Through conversation, a new narrative emerges that centers on the issues of human bias, objectivity, and the nature of science. For example, by daring to impart a motive for the fledgling chickadee, such as loss of interest, I acknowledge that my human bias was over-riding a more objective reading of the behavior.

Our discussion turns to ethical behavior: What is the appropriate response when a chickadee actually lands on me? Should I assume the role of an inanimate branch in the story, or is it reasonable to behave as a protagonist, reaching forward to hold, touch, and possess? I remember how time had slowed as I balanced on my hoe. The fledgling was looking up, quivering its wings and giving a classic begging "dee" food solicitation call. I knew this visual display and paired vocalization because I had studied chickadees extensively at the zone of overlap between Carolina and Black-capped Chickadee populations in central Missouri. It was not unusual for hybrid vocalizations to emerge from these closely related species.

Both species, however, shared the begging "dee" display. Because the vocal repertoire of chickadees is clearly represented in the literature, I knew that dependent young quiver their wings while giving broken "dedee" calls as they beg for food. Chickadee young typically use this solicitation to garner food directly from their parents. We are left wondering what motivated the chickadee to land on my shirt, beg, and vocalize.

Transcribing Experience

Recording this event on paper is a little like "searching the bottom of the pond for plants and animals and never getting past our own image on the water's surface" (Stokes and Stokes 1979, p. 5). In my field notebook, I describe the behavior in objective language, "looking upwards, the individual quivered its wings, vocalized 'dedee-dedee-dedee,' and after 15 seconds flew to a perch in the *Arbutus*." As I try to avoid interpretive passages that impart motive to the chickadee's behaviors, I find my narrative remains incomplete and partial. Should I mention in my notes how the chickadee's perched display made me feel somehow special, bordering on paternal? Or should

I try to edit myself out completely? I decide to include my qualitative personal impressions and speculations. Transcribing field experiences is an interpretive process, and I am forced to ask, is narration nothing more than self-reflection (Riessman 1993)? It occurs to me that I might be confounding the record of my encounter with the fledgling by including my speculations and feelings. What was the chickadee really communicating?

Analyzing Experience

While discussing the role of the observer, my friend rereads selections from my field notes, looking for evidence of observational bias. We enjoy lively discussions of the nuances of data collection. What had I missed in my account? For example, where were the parent chickadees during my interaction with the fledgling? Was the fledgling communicating to its siblings or parents? Could I have been a more careful observer? Had I recorded my experience with the fledglings on my smartphone, perhaps we could begin to compare the primary vocalizations of this fledgling to other chickadee calls recorded in similar contexts. We speculate that avian audiologists could then look for specific patterns and similarities in vocalizations. Behavioral repertoires that include begging sequences could be linked to specific utterances. Eventually a more complete behavioral picture of the species' interactions emerges. Transcriptions with audiotapes, photos, drawings, or digital video could provide more data; eventually we might be able to assign roles to each individual (player) in the interaction (drama). The difficult task is to sift through all the data, defining critical moments, aggregating, and ordering into a meta-story or, story embedded in another (Riessman 1993), that represent, in this case, a small note in the life history of the species.

I am interested in the nesting ecology of chickadees. Early in the nesting season, chickadees typically delay incubation until the entire clutch is laid. If a predator finds a hidden cavity nest and removes the clutch of eggs, the chickadee parents will often excavate a new cavity, build a new nest, and lay a replacement clutch. Because the eggs in these late-season nests are typically incubated after the first egg is laid, the eggs tend to hatch in the order laid (Perrins 1979). Because of the late date, the nest I had been observing was undoubtedly a replacement clutch.

Since the individual gripping my shirt was the last nestling to leave the nest, it was likely the last chick in its brood to hatch. I assumed there were no other chickadees left in the cavity because both parents were escorting the fledgling flock. I observed neither adult visiting the cavity. Intraspecific competition among siblings for a favorable perch site may account for the youngest chickadee's displacement from the *Arbutus* and consequent resting location on my shirt.

Yet my paternal side marvels that the chickadee seemed to be soliciting food from the first animate creature that it encountered outside the nest box. Though my observation is clearly documented, the meaning behind the chickadee's behavior is largely speculative. Perhaps I misread the begging *dee* vocalization. It could be argued that the fledgling was simply complaining over its unexpected perch or rallying for its siblings to mob the awesome giant in the T-shirt. The text is open to several readings.

Reading Experience

My short, written narrative is circulated as a field note in an amateur bird watching newsletter where my readership is free to resonate or critique the interpretive story. The editors are well aware that the charismatic *Poecile atricapillus* has an admiring following; first-hand accounts of chickadees are extremely popular. I understand that responses to the narrative can be viewed as collaborative interpretations (Riessman 1993). In other words, because the reader is an agent of the text (Brunner 1986), I can expect my field note to inspire an array of reactions and rejoinders. Brunner calls such responses *performances of meaning*. Thus, as Letters to the Editor reshape the context of the master narrative, it becomes clear that I cannot speak finally or with ultimate authority for others. One personal note took the form of a poem:

What if Your Father Were a Chickadee?

*Suppose, Don, your father were a chickadee...
and before you could sing, you watched
the slow spread of his wing over and over...
bringing you seeds and stuff,
while you, still nestled in downy fluff,
could see the world as he,
high up from the hemlock tree.
(oohmygoodness!)*

The poem reminds me that intimate moments with wild creatures seem all too rare. I am also left with the hope that more readers remain open to artistic renderings of their recorded field experiences.

Conclusion

Attending, telling, transcribing, analyzing, and reading experiences are parts of a naturalist's research process that can help create a deeper understanding and closer connection to the natural world.

What implications for research practices can we draw from generalizing my chickadee experience and its many transformations? If we accept Riessman's warning that, "All forms of representation of experience are limited portraits" (1993, p. 15), then we must ask, how can we create a more accurate portrait? Or more specifically, what are the characteristics of an adequate field note?

While repetitive, quantitative observations are at the heart of science, qualitative notes can provide descriptive details and personal impressions (Kramer 2011). Thus, if we are writing for posterity, we should write clear, detailed descriptions and minimize obscure references (Greene 2011) but also follow Kramer's advice to "record everything you can, while you can" (2011, p. 126).

Our challenge is to remain open to the experience even while diligently recording. As the story is told and collectively written, each transformation results in a representation that is a selection from the primary experience. Each representation is, perhaps, equally valid.

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References

- Brunner, J. 1986. *Actual Minds, Possible Worlds*. Harvard University Press.
- Greene, E. 2011. Why keep a field notebook? Pages 151-274 in M.R. Canfield, editor. *Field Notes on Science and Nature*. Harvard University Press.
- Kramer, K.L. 2011. The spoken and the unspoken. Pages 109-127 in M.R. Canfield, editor. *Field Notes on Science and Nature*. Harvard University Press.
- Odum, E.P. 1941. Annual cycle of the Black-capped Chickadee-2. *Auk* 58:5 18-534.
- Perrins, C.M. 1979. *British Tits*. William Collins and Company.
- Riessman, C.K. 1993. *Narrative Analysis*. Sage Publications.
- Smith, S.M. 1993. *The Black-capped Chickadee: Ecology and Natural History*. Cornell University Press.
- Stokes, D.W., and L.Q. Stokes 1979. *A Guide to Bird Behavior: Birds I*. Little, Brown and Company.

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