# Everyday Creativity in Daily Life: An Experience-sampling Study of "little c" Creativity

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## Abstract:

Richards proposed that everyday creativity—creative actions that are common among ordinary people in daily life, such as drawing, making recipes, writing, and any activity done with the purpose of being creative—both fosters and reflects psychological health. To explore when people are more likely to do something creative during the day, and to see who tends to act more creatively, we conducted a week-long experience-sampling study with a sample of young adults. Throughout the day, people's actions and feelings were randomly sampled, with an emphasis on whether people were doing something creative. Consistent with the notion of everyday creativity as a psychological strength, within-person models showed that people who reported feeling happy and active were more likely to be doing something creative at the time. Between-person models found that openness to experience and conscientiousness had large effects on whether people spent their time on creative pursuits. Neither negative states (e.g., momentary feelings of anger, stress, and self-consciousness) nor traits (e.g., neuroticism) significantly predicted creative activity. The findings support Richards's theorizing about everyday creative behavior as a cause and effect of positive psychological processes, and they illustrate the value of experience sampling for uncovering what creativity looks like in people's idiosyncratic environments.

## Article:

Creativity research knows a lot about genius and eminence, about the "Big C" creative greats (e.g., Simonton, 1999), but much less about everyday "little c" creativity, the common hobbies and passions of ordinary people who want to do something creative. Whether it's making greeting cards, rocking out in a basement, deploying an arsenal of scalloped scrapbooking scissors, whiling away a psychology lecture by knitting, weaving a necktie out of duct tape, or writing maudlin poetry best kept to oneself, people spend a lot of time doing creative things simply because of personal enjoyment and fulfillment. The resulting products might not be particularly innovative, desirable, or effective, but as Richards (2007) points out, the sheer mass of ordinary creative activity says something important about human nature.

In her writings, Richards (2007, 2010) has called attention to everyday creativity and its role in psychological development. Although her theorizing isn't easily condensed, one theme is that everyday creativity is both a cause and a consequence of positive development. Engaging in creative pursuits allows people to explore their identities, form new relationships, cultivate competence, and reflect critically on the world. In turn, the new knowledge, self-insight, and relationships serve as sources of strength and resilience. Not much is known, however, about what everyday creativity looks like empirically. Most research has used cross-sectional interviews about past creative actions (e.g., Richards, Kinney, Benet, & Merzel, 1988) and self-report scales that ask how often people have done different kinds of common creative pursuits (e.g., Batey, 2007; Hocevar, 1979).

To understand everyday creativity, researchers should examine what it looks like in people's natural environments as it happens. Experience sampling methods—a family of methods that intensively assess people as they go about their normal lives ( Conner, Tennen, Fleeson, & Barrett, 2009; Hektner, Schmidt, & Csikszentmihalyi, 2007)—offer compelling tools for problems like everyday creativity. In the present research, we conducted an experience sampling study of everyday creativity in the daily lives of a sample of young adults. Our primary purpose, as in much experience sampling, was largely exploratory and descriptive: intensively measuring what people are doing in their everyday, self-selected environments provides a nuanced and ecological perspective on a phenomenon ( Bolger & Laurenceau, 2013). In the case of everyday creativity, experience sampling can illuminate some important questions: How often do people do something creative? What kinds of emotions and feelings typify everyday creative activity? What kinds of people tend to spend their time on creative pursuits? Guided by Richards's writings, however, our hypotheses weren't entirely exploratory. Given the role of creative activity in positive development, one would expect creative activity throughout the week to be associated with markers of positive experience, such as positive traits (e.g., openness to new experiences) and positive states (e.g., feelings of happiness and positive activation).

**Method**

**Participants**

A total of 79 students at UNCG—61 women, 18 men—participated in the week-long study. Some students received credit toward a voluntary research participation option in one of their classes; others received up to $20 in cash. To expand the variability in personality and creative pursuits, we made a special effort to recruit students ( $n = 26$ ) with majors in the arts ( Silvia & Nusbaum, 2012).

**Procedure**

The first phase of the study took part in the lab. After completing a consent form, participants learned how to use the phone-based survey system and then completed a series of self-report questionnaires. After the lab session, they received surveys via their cell phone for the rest of the day and for the following seven days.

**Between-person questionnaires**

We assessed personality using the NEO FFI 3 (McCrae & Costa, 2010), a 60-item scale that measures the five major factors of personality: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. All five factors influence creativity in some regard, but the most central by far is openness to experience, which strongly predicts creativity across its many levels (e.g., McCrae, 1987; Silvia, Nusbaum, Berg, Martin, & O'Connor, 2009). We naturally expected openness to predict how often people engaged in creative activities in everyday life.

In addition to personality, we measured people's self-reports of how often they engage in everyday creativity. The Biographical Inventory of Creative Behaviors (BICB; Batey, 2007) presents 34 common kinds of everyday creative behaviors (e.g., writing a poem, drawing a picture, making a recipe) and asks people if they have done them within the past year. People respond on a 0/1 (*no/yes*) scale. Unlike scales such as the Creative Achievement Questionnaire (CAQ; Carson, Peterson, & Higgins, 2005), the BICB emphasizes common ways that people express little-c creativity across a wide range of domains. Past research has found good evidence for the BICB scores' reliability and validity (Silvia, Wigert, Reiter-Palmon, & Kaufman, 2012).

**Experience sampling design**

We delivered the surveys using the participants' own cell phones. People provided their cell phone numbers along with the 12-hr time period that they preferred to receive the surveys. For example, people could choose to get survey calls between 8 a.m. to 8 p.m., 10 a.m. to 10 p.m., 1 p.m. to 1 a.m., or any other convenient 12-hr window. Because some college students keep eccentric hours, allowing personalized survey windows ensured that the surveys arrived during the waking hours, thus reducing missing data (Silvia, Kwapil, Eddington, & Brown, 2013). An interactive voice response (IVR) system, running Telesage's SmartQ ( Telesage, 2009), administered the automated surveys. The software generated eight survey calls per day, at quasi-random times, within each person's 12-hr window. If people missed a call, they could call into

the system within 5 minutes to complete it, which further reduces missing data ( Burgin, Silvia, Eddington, & Kwapil, 2013). Participants responded to survey items using the phone keypad. They were told to respond to the items based on their momentary feelings, thoughts, and actions at the time of the call.

**Survey items**

Table 1 lists the items people completed at each call. Our central question concerned everyday creativity: People responded to "Are you doing something *creative*?" using a binary *no/yes* scale. This question was deliberately general so it could include the wide range of activities that could be done creatively. To assess the emotional and motivational qualities of situations involving creative work, we included a cluster of items that assessed a range of inner states. Several items assessed common emotions people experience in everyday life, such as feeling *happy*, *sad*, *anxious*, and *angry*. Other items asked about other experiences, such as whether people felt *active*, *restless*, *annoyed*, *discouraged*, and *self-conscious*. People responded to these items using a 7 point scale (1 = *not at all*, 7 = *very much*). The items assessing inner states were presented in a different random order at each call, which should wash out order effects, minimize reactivity, and reduce the mindless "click through" that can happen when participants become accustomed to items that have been presented dozens of times. Finally, to gain information on the social context, we asked if people were alone or with other people. Most of these items have been used in our past experience sampling work, which over the years has developed items that reflect the range of common feelings that college students report in a typical week (e.g., Brown, Silvia, Myin-Germeys, & Kwapil, 2007; Kwapil, Brown, Silvia, Myin-Germeys, & Barrantes-Vidal, 2012).

**Table 1** Items in the Experience Sampling Survey

| Item | Response scale |
|---|---|
| Are you doing something creative? | 0 (no), 1 (yes) |
| Before the call, I felt. . . | |
| Happy | 1 (not at all) to 7 (very much) |
| Active | 1 (not at all) to 7 (very much) |
| Sad | 1 (not at all) to 7 (very much) |
| Discouraged | 1 (not at all) to 7 (very much) |
| Restless | 1 (not at all) to 7 (very much) |
| Anxious | 1 (not at all) to 7 (very much) |
| Angry | 1 (not at all) to 7 (very much) |
| Annoyed | 1 (not at all) to 7 (very much) |
| Self-conscious | 1 (not at all) to 7 (very much) |
| Are you alone or with other people? | 0 (alone), 1 (with others) |

**Results**

**Analytic Approach and Descriptive Statistics**

For the analyses, we excluded three participants who had unusually poor experience-sampling response rates (i.e., five or fewer surveys). People received different numbers of calls—the initial sessions started at different times of the day, and technical glitches and problems shortened or extended the data collection period for some participants—but they completed an average of 38.12 surveys ( $Mdn$ = 39, range = 6 to 62). The overall response rate was roughly 65%, which is comparable, and somewhat higher, than our past research with cell phones ( Burgin et al., 2013) and typical for experience sampling research. We also excluded surveys that took less than 90 seconds, which typically reflects "clicking through" or hanging up midsurvey. Overall, each survey took on average 2.65 minutes ( $Mdn$ = 2.60, range = 1.51 to 6.3 minutes).

Experience sampling studies have two data levels: a within-person level (the items asked dozens of times throughout the week, such as people's momentary emotions) nested in a between-person level (the questions asked once during the initial lab session, such as personality). Analyzing such data thus typically involves multilevel models, which can accommodate the nested structure of the data ( Heck & Thomas, 2009; Silvia, 2007). We conducted the multilevel models using Mplus 7.11. Within-person predictors were centered at each person's own mean; between-person predictors were centered at the sample's grand mean.

Missing data in experience sampling is largely "beep wise": the data for between-person constructs are generally 100% complete, but people will have varying numbers of missed beeps ( Silvia et al., 2013). One virtue of multilevel models is their ability to handle unequal numbers of within-person units and to estimate parameters efficiently despite widespread missingness ( Heck & Thomas, 2009). Simulation research shows that full-information maximum likelihood, the method used here, can effectively recover population estimates despite extensive missingness ( Enders, 2010). This is true even for multilevel designs when missingness is extensive (most observations are missing) and variable (people differ widely in how much data are missing), according to recent simulations ( Silvia, Kwapil, Walsh, & Myin-Germeys, in press). We're thus confident that the analyses are robust to the missing data in the present sample.

**Within-Person Predictors of Doing Something Creative**

The final dataset had the richness typical of experience-sampling designs: the analyses were based on nearly 2,300 surveys of what people were doing and feeling in their everyday environment. We found that creative action was quite common: people said they were doing something creative 22% of the time that they were called.

When were people more likely to report doing something creative? What other aspects of everyday life predicted creative behavior? Our first multilevel model explored the effects of momentary emotional and motivational states. For this model, all 9 states listed in Table 1 were entered simultaneously as within-person predictors, and creative activity was the binary outcome. Table 2 displays the results. Only two states emerged as significant predictors—feeling

happy and feeling active, the two states that have most consistently fostered creativity in the experimental literature ( Baas, De Dreu & Nijstad, 2008). Notably, negative and aversive states, from passive states like sadness to activated states like anger and anxiety, had no effects on the likelihood of creative activity. An additional model explored whether doing something creative was more likely when people were alone or with others; no significant difference appeared (see Table 2).

**Table 2** *Within-Person Predictors of Doing Something Creative at the Moment*

| Predictor | b | p | 95% CI |
|---|---|---|---|
| Happy | .077 | .018 | .013, .141 |
| Active | .081 | .047 | .001, .161 |
| Sad | .001 | .983 | .109, .133 |
| Discouraged | .021 | .756 | .132, .112 |
| Restless | .068 | .145 | .145, .023 |
| Anxious | .046 | .346 | .034, .142 |
| Angry | .023 | .663 | .112, .082 |
| Annoyed | .005 | .915 | .090, .095 |
| Self-conscious | .006 | .882 | .060, .085 |
| With others | .090 | .590 | .237, .417 |

*Note.* The coefficients are unstandardized logistic coefficients. The predictor "With others" was estimated in a separate model.

Finally, experience sampling allows us to understand variability in within-person relationships. For the sample as a whole, for example, the slope relating happiness to creativity was significant, but this sample slope is (roughly) the average of each individual participant's slope. We explored if people varied significantly in their within-person slopes by reestimating the model with random effects (using Monte Carlo integration) and examining the variance components for the slopes, which represent the between-person heterogeneity in the slopes. For example, if the happiness–creativity slope was positive for most of the sample but negative for some of it, the variance component for the slope would be large and significantly different from zero. None of the variance components were significant (e.g., for happy, $p = .902$, and for active, $p = .221$), so the sample didn't have significant variability in the within-person slopes.

**Between-Person Predictors of Doing Something Creative**

What kind of person was most likely to be doing something creative? Our next models explored between-person predictors of everyday creative behavior. We first examined the role of the Big Five factors as simultaneous predictors of the binary creativity outcome. Table 3 displays the results. Not surprisingly, openness to experience had the largest effect: as openness increased, people were much more likely to be doing something creative. Figure 1 shows the predicted probability of doing something creative as a function of openness. The X-axis shows the raw scores for openness, which are centered at the sample mean of zero. The figure shows the

estimated probabilities for raw values ranging from −1.5 to 1.5, which reflect a range of ± 3 standard deviations ( SD) above and below the mean of 0. People who were at 3 SD below the mean in openness had only a 12% likelihood of doing something creative; people 3 SD above the mean in openness, by contrast, had a 40% chance of doing something creative.

**Table 3** *Personality Predictors of Doing Something Creative at the Moment*

| Model | Predictor | b | p | 95% CI |
|---|---|---|---|---|
| 1. Personality | Neuroticism | .023 | .930 | .482, .527 |
| | Extraversion | .354 | .216 | .206, .914 |
| | Openness to experience | .672 | .035 | .046, 1.298 |
| | Agreeableness | .464 | .178 | 1.140, .211 |
| | Conscientiousness | .611 | .032 | .053, 1.170 |
| 2. BICB | BICB (Alone) | 4.048 | .001 | 2.277, 5.819 |
| | BICB | 3.467 | .001 | 1.561, 5.373 |
| 3. Arts majors | Arts major | 1.203 | .001 | .639, 1.676 |

*Note.* The coefficients are unstandardized logistic coefficients. BICB  Biographical Inventory of Creative Behaviors. BICB (Alone) is the effect when BICB is estimated as the only predictor.
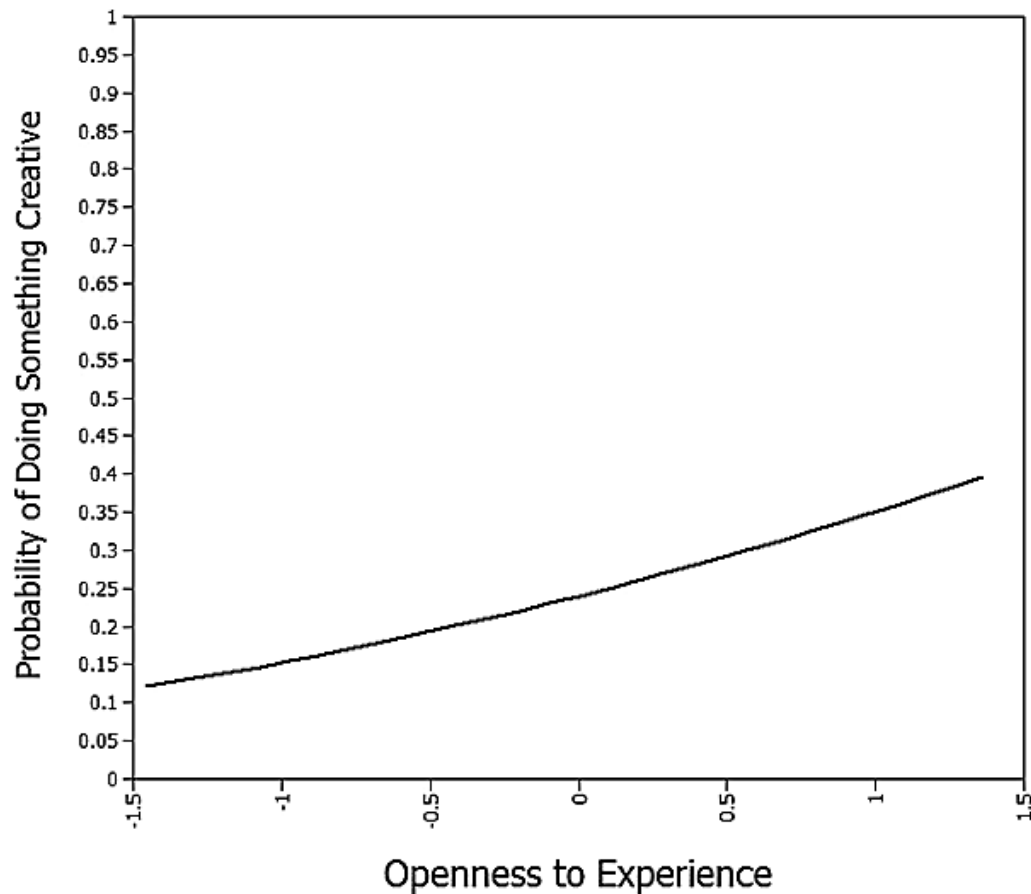
*Figure 1. The probability of doing something creative in daily life as a function of openness to experience.*

The only other significant effect, curiously enough, was for conscientiousness (see Table 3). As conscientiousness increased, people were more likely to be doing something creative. The small literature on conscientiousness and creativity is complex and inconsistent (see Reiter-Palmon, Illies, & Kobe-Cross, 2009), but we suspect this effect appeared in our sample because of the high proportion of music majors, a conscientious group that spends much of the day devoted to their craft. In fact, the arts majors were significantly higher in both openness (standardized $\beta$ = .38, $p < .001$) and conscientiousness (standardized $\beta$ = .32, $p = .004$) in our sample.

We then explored the BICB scale as a predictor. When estimated by itself, the BICB strongly predicted the likelihood that people were doing something creative (see Table 3). Because BICB scores correlate with openness to experience ($r = .34$ in this sample), we ran an additional model that included the Big Five factors and the BICB as predictors. The BICB remained a strong predictor despite controlling for personality (see Table 3), a finding that offers unique support for the scale as a measure of everyday creativity.

Finally, we explored differences between students with and without majors in the arts. Around a third of the sample had a major in the arts (primarily music), and it's possible that this group was biasing the high overall probability (22%) of doing something creative. We estimated a model in which people's major (scored 0 for nonarts major and 1 for arts major) predicted doing something creative. As one would expect, people's major had a large effect (see Table 3). This effect can be unpacked by considering the estimated probabilities of doing something creative for the two groups. People with arts majors were doing something creative 39% of the time; people without arts majors were doing something creative 19% of the time. It's notable, then, that people without majors that required ongoing daily involvement in creative pursuits nevertheless were doing something creative nearly 20% of the time during a typical week.

**Discussion**

What does everyday creativity look like in everyday life? Experience sampling methods are ideal for observing the diversity of what people are doing and thinking in their natural environments. In the present research, we explored everyday creativity in the daily lives of a sample of young adults. First, we found that the frequency of doing something creative was quite high, around 22%, in light of all the things that people could do and must do during a day. Second, we explored the daily context of creative activity, with an emphasis on inner experiences associated with doing something creative. When people reported doing something creative, they reported feeling significantly happier and more active. It's notable that these findings, taken from people's uncontrolled and idiosyncratic environments, align with the large experimental literature on affect and creativity. The large mood-and-creativity literature isn't easily captured in a snapshot, but Baas et al.'s (2008) meta-analysis found that active and positive states, such as

happiness, had the largest effects on creativity. The nonsignificant variance components indicated that people didn't vary appreciably in their within-person slopes linking feelings to creativity, which is an intriguing result in its own right.

And third, we explored which traits predicted spending time on creative pursuits. Openness to experience, a trait associated with curiosity, imagination, and behavioral flexibility, strongly predicted spending time on something creative; conscientiousness significantly predicted everyday creativity, too. Our measure of openness to experience yields only a global domain score, and it would be interesting in future work to break openness's effect down based on its facets. In the Openness/Intellect model ( DeYoung, Quilty, & Peterson, 2007), one would expect much larger effects for openness than for intellect ( Nusbaum & Silvia, 2011). In the Five Factor Model ( McCrae & Costa, 2008), one would probably find larger effects for the facets associated with imagination and aesthetic interests. And in the HEXACO ( Ashton & Lee, 2007), one would expect larger effects for the creativity and aesthetic appreciation facets relative to the unconventionality and inquisitiveness facets. Beyond personality, having a major related to the arts and having high BICB scores, not surprisingly, predicted spending more time doing something creative.

The null effects strike us as equally telling. It might seem surprising that nothing appeared for the many negative emotions that we measured, given the long interest in creativity and psychopathology as well as cultural stereotypes about creativity being motivated by despair and anguish. But the pattern of findings—people doing something creative are more likely to feel happy and enlivened—fits nicely with Richards's (2007, 2010) model of everyday creativity, which views it as a psychologically healthy state that fosters personal growth, and it resembles the phenomenology of flow, a state long connected to creativity ( Csikszentmihalyi, 1990). Likewise, the traits that predicted creativity reflect both imagination (high openness) and self-regulation (high conscientiousness). The stereotype of a neurotic, impulsive, dysregulated person seeking solace in creativity was clearly not supported in this study ( Beaty, Silvia, Nusbaum, & Vartanian, 2013; Silvia & Kaufman, 2010).

**Limitations and Future Directions**

In the present work, we measured creative activity with a simple binary item, based on the everyday-creativity view that any activity can be done in novel ways with creative intentions. This measurement choice has its virtues—it forces people to commit to an answer rather than hedge, and it affords estimates of the overall base rate of doing something creative—but it has some clear limitations as well. For one, the binary quantitative outcome obscures the specific activities that people were pursuing. People indicated whether they were doing something creative, but what exactly they were doing—be it rehearsing with their jazz trio or knitting the dog a bib—went unmeasured. In experience sampling, there's a tradeoff between how often people can be surveyed each day and how much information one can collect at each survey ( Silvia et al., in press). The highly intensive within-day method we used works best with small

sets of short quantitative items, so we don't have qualitative information on the nuances of the activity and context.

A natural next step would be to employ alternative designs that could provide more detail and texture about the activities people pursue and how different activities relate to personality and inner experience. One possibility would be to use an end-of-day diary design that asked about experiences and activities during the day, using both rating scales and qualitative free responses, every evening for several weeks. Another would be to use an event-contingent method (Moskowitz & Sadikaj, 2012), in which people complete a detailed diary and survey whenever a predefined event—such as doing something creative—happens. These alternate designs cover the other side of the trade-off: they don't capture as many random points in a person's typical day, but they provide more detail about certain parts of it. In either case, experience sampling is a fertile method for creativity research, one that we hope gets more attention in future work.

**Conclusion**

Our snapshot of everyday creativity provides strong support for Richards's perspective on everyday creativity, which emphasizes the important psychological strengths concealed by common creative action. The creative products might seem frivolous, amateurish, or weird, but the creative process that yielded them appears important to positive psychological development. More generally, this research highlights the value of experience sampling for research on aesthetics, creativity, and the arts. With some exceptions (e.g., Bailes, 2006; Beaty et al., 2013; Nusbaum et al., in press; Tschacher et al., 2012), the field has not often taken its tools outside of the sterile lab and into the idiosyncratic and uncontrolled environments in which people experience and create art. Not every question lends itself well to experience sampling, but the method is a fruitful way of knowing what creativity and the arts look like in the mystifying "real world."

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