

Authentic Neurodivergent Development: The Puppet Method as Bridge Between Internal Experience and External Communication

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Abstract

This research proposes a novel framework for bridging the communication gap experienced by non-verbal and communication-challenged autistic individuals through the implementation of the Puppet Method—a tangible identity anchoring system. Drawing from lived experience as an autistic researcher and personal loss of a neurodivergent friend, this work challenges traditional deficit-based therapeutic models by introducing a universally accessible tool for authentic self-expression. The framework addresses the critical challenge of measuring both subjective internal experiences and objective external behaviors in neurodivergent populations. We propose a six-month empirical investigation at Cambridge University employing controlled, guided environments with pre-gating protocols to validate this approach. The ultimate goal is to enable authentic identity development that may lead to eventual verbal communication, fundamentally shifting therapeutic and educational paradigms from remediation to empowerment.

1 Introduction

The neurodivergent experience, particularly for individuals with severe autism spectrum conditions, represents a fundamental challenge to conventional communication paradigms. When verbal expression is limited or absent, society often perceives an absence of identity or coherent thought. This perception creates a devastating recognition crisis where internal richness remains trapped behind communication barriers.

As an autistic researcher navigating these same challenges, I propose that the gap between internal experience and external expression is not a deficit but a translation problem requiring innovative bridging mechanisms. The Puppet Method emerges from this understanding—not as therapy, but as accessible identity infrastructure.

2 Background

2.1 Personal Context and Motivation

My journey toward this research began at age nine in Nigeria, witnessing my 14-year-old autistic friend communicate through electrical signals—his unique language that society never learned to decode. His premature death represents countless lost voices, trapped identities that our systems failed to recognize or support.

This personal loss, combined with my own navigation of neurotypical systems (including the Section 202 housing appeal against Thurrock Council for £270 million under Section 184 determination), crystallizes the urgent need for communication bridges that honor neurodivergent authenticity rather than demanding conformity.

2.2 Theoretical Foundations

Traditional approaches to non-verbal autism focus on behavioral modification and skill acquisition. These deficit-based models assume that communication challenges represent missing capabilities rather than different modalities. Recent neurodiversity paradigms suggest alternative frameworks, yet practical implementation remains limited.

3 Problem Statement

3.1 The Communication Layer Crisis

The core challenge facing non-verbal autistic individuals is threefold:

1. **Identity Invisibility:** Without conventional communication, internal identity remains unrecognized—for some, "there's no soft to them... no identity in there because you can't express anything coherent"
2. **Therapeutic Inaccessibility:** Professional interventions require resources and contexts unavailable to most—"apart from therapy, it's not accessible. It's not like therapists can come to you and speak to you that way"
3. **Metric Absence:** No validated framework exists for measuring subjective experience alongside objective behavior—"what is the layer, what is the metric here? What's actually happening with people that are autistic?"

3.2 The Subjective-Objective Reality Gap

Current assessment tools measure external behaviors without accessing internal states. For individuals where "there's no soft to them... no identity in there because you can't express anything coherent," this creates a fundamental measurement problem:

$$\text{Communication Gap} = \text{Internal Experience} - \text{External Expression} \quad (1)$$

Where traditional metrics only capture the second term, leaving the first unmeasured and therefore dismissed. The challenge lies in developing metrics that capture "the measurement of the individual subjective and objective realities" simultaneously—understanding

not just what manifests externally, but the rich internal world that remains trapped without appropriate translation mechanisms.

4 The Puppet Method Concept

4.1 Core Principles

The Puppet Method operates on four foundational principles:

1. **Identity Anchoring:** Each individual receives a personalized puppet serving as tangible self-representation—"it's them, it's an anchor to themselves, whether they know it or not"
2. **Ownership Protocol:** Strict boundaries establish puppet sovereignty—"when you pick up their puppet, that's your puppet. When you pick up the other person's puppet, you don't do that"
3. **Design Autonomy:** Individuals shape their puppet to "look like them, feel like them," creating authentic external representation of internal identity
4. **Communication Bridge:** The puppet becomes a transitional communication layer, enabling expression when "their brain don't work as always" with conventional communication

4.2 Implementation Architecture

4.3 Social Protocol Framework

The puppet's power lies not just in individual use but in social recognition:

```
1 class PuppetProtocol:
2     def __init__(self):
3         self.identity_registry = {}
4         self.interaction_rules = self.establish_boundaries()
5
6     def register_puppet(self, individual_id, puppet_design):
7         """Each puppet is sovereign identity property"""
8         self.identity_registry[individual_id] = {
9             'design': puppet_design,
10            'creation_date': datetime.now(),
11            'interaction_log': [],
12            'boundary_violations': []
13        }
14
15    def validate_interaction(self, actor_id, puppet_id):
16        """Enforce ownership boundaries"""
17        if actor_id != puppet_id:
18            raise BoundaryViolation(
19                f"Puppet {puppet_id} belongs to another individual"
20            )
```

Algorithm 1 Puppet Method Identity Development Protocol

Initialization Phase (Age 6+)

Provide base puppet materials to child
Allow autonomous design without intervention
Document design choices as identity markers

Anchoring Phase

while child engages with puppet **do**

 Observe projection patterns
 Record emotional responses
 Note consistency in puppet personality
 Respect puppet boundaries absolutely

end while

Bridge Construction Phase

Introduce puppet-mediated interactions
Enable puppet-to-puppet communication
Gradually map puppet expressions to needs
Support emergence of verbal attempts

Validation Phase

Measure identity coherence markers
Track communication attempts (verbal/non-verbal)
Document subjective state indicators
Evaluate authentic self-expression growth

```

21         return True
22
23     def facilitate_puppet_meeting(self, puppet_a, puppet_b):
24         """Enable puppet-to-puppet communication"""
25         return CommunicationBridge(
26             source=puppet_a,
27             target=puppet_b,
28             protocol='non_verbal_symbolic'
29         )

```

Listing 1: Puppet Social Protocol Implementation

5 Research Goals and Metrics

5.1 Primary Research Questions

1. Can puppet-mediated identity anchoring bridge the subjective-objective reality gap?
2. What metrics effectively capture both internal experience and external expression?
3. Does early puppet introduction correlate with later verbal communication emergence?
4. How does social recognition of puppet sovereignty impact identity development?

5.2 Measurement Framework

Addressing the metric challenge requires dual-channel assessment:

5.2.1 Subjective Reality Indicators

- Puppet design evolution as identity marker
- Emotional engagement patterns
- Consistency in puppet personality projection
- Self-initiated puppet interactions

5.2.2 Objective Reality Measurements

- Communication attempt frequency
- Social interaction duration
- Behavioral regulation improvements
- Eventual verbal emergence tracking

5.3 Expected Outcomes and Transformative Goals

The primary objective extends beyond communication facilitation to authentic identity development leading to verbal emergence:

$$\text{Puppet Method Success} = \frac{\text{Authentic Identity Development} \rightarrow \text{Verbal Communication}}{\text{Time} \times \text{Minimal Support Infrastructure}} \quad (2)$$

This formula emphasizes that “the goal is to start actually speaking, if it does work for them”—not through forced behavioral modification but through organic identity expression. The method’s power lies in its accessibility: caregivers “can buy a puppet from a shop and give it to the kid” without requiring specialized training or therapeutic gatekeeping.

For individuals where conventional communication fails because “their brain don’t work as always,” the puppet provides an alternative pathway—a tangible anchor that enables gradual development of authentic self-expression, potentially culminating in verbal communication.

6 Democratizing Therapeutic Intervention

6.1 Universal Accessibility Protocol

The Puppet Method fundamentally challenges the therapeutic gatekeeping model by enabling immediate, accessible intervention:

```
1 class UniversalAccessProtocol:
2     def __init__(self):
3         self.required_resources = {
4             'materials': 'any_puppet_from_shop',
5             'training': 'minimal_guidance_sheet',
6             'professional_involvement': 'optional',
7             'cost_barrier': 'minimal'
8         }
9
10    def enable_caregiver_implementation(self, caregiver):
11        """Empower any caregiver to facilitate development"""
12        return ImplementationKit(
13            puppet_selection_guide=self.generate_simple_guide(),
14            boundary_protocols=self.establish_ownership_rules(),
15            observation_framework=self.create_tracking_system(),
16            support_network=self.connect_to_community()
17        )
18
19    def bypass_therapeutic_barriers(self):
20        """Remove traditional access limitations"""
21        return {
22            'location_independent': True,
23            'schedule_flexible': True,
24            'culturally_adaptable': True,
25            'economically_accessible': True
```

Listing 2: Accessibility Implementation Framework

6.2 Caregiver Empowerment Framework

”There’s some guy I’m looking after, I cannot have this method of communication with that individual”—this reality drives the method’s design. By providing tools that anyone can implement, we transform helplessness into agency:

- **Immediate Implementation:** No waiting lists or professional availability constraints
- **Continuous Support:** Daily interaction opportunities versus weekly therapy sessions
- **Natural Integration:** Embedded in existing care relationships
- **Community Scalability:** Knowledge sharing through informal networks

6.3 Six-Month Cambridge Research Program

6.3.1 Phase 1: Infrastructure Development (Months 1-2)

- Establish controlled research environment with sensory considerations
- Develop puppet creation materials and protocols
- Recruit neurodivergent co-researchers and participants
- Create pre-gating assessment tools

6.3.2 Phase 2: Implementation and Data Collection (Months 3-5)

- Introduce Puppet Method to 20-30 non-verbal autistic children
- Implement daily observation protocols
- Document puppet evolution and interaction patterns
- Conduct weekly caregiver training sessions

6.3.3 Phase 3: Analysis and Framework Refinement (Month 6)

- Analyze subjective-objective correlation patterns
- Validate measurement instruments
- Develop implementation guidelines
- Prepare policy recommendations

6.4 Controlled Environment Specifications

```
1 class ResearchEnvironment:
2     def __init__(self):
3         self.sensory_controls = {
4             'lighting': 'adjustable_spectrum',
5             'sound': 'dampened_ambient',
6             'temperature': 'participant_controlled',
7             'textures': 'varied_safe_options'
8         }
9         self.safety_protocols = SafetyFramework()
10        self.data_collection = EthicalDataSystem()
11
12    def pre_gate_participant(self, individual):
13        """Ensure readiness and consent"""
14        return all([
15            self.assess_communication_baseline(individual),
16            self.verify_caregiver_support(individual),
17            self.confirm_sensory_preferences(individual),
18            self.establish_exit_protocols(individual)
19        ])
20
21    def create_guided_structure(self):
22        """Balance freedom with support"""
23        return {
24            'core_hours': 'consistent_daily',
25            'flexibility': 'participant_led_pace',
26            'support_ratio': '1:3_maximum',
27            'break_spaces': 'always_available'
28        }
```

Listing 3: Research Environment Control System

7 Expected Impact

7.1 Individual Level

- Tangible identity representation for non-verbal individuals
- Accessible communication bridge requiring no technology
- Potential pathway to verbal communication
- Increased caregiver understanding of internal states

7.2 Systemic Level

- Shift from deficit to difference paradigm
- Universally implementable across economic contexts
- Reduced dependence on formal therapeutic interventions
- New metrics for neurodivergent development assessment

7.3 Theoretical Contributions

- Validation of identity-first development models
- Framework for measuring subjective experience
- Alternative to behaviorist intervention approaches
- Bridge between neurodiversity theory and practice

8 Conclusion: Toward Accessible Authenticity

The Puppet Method represents more than a communication tool—it embodies a fundamental shift in how we conceptualize neurodivergent development. By providing tangible identity anchors and respecting puppet sovereignty, we create space for authentic self-expression that transcends verbal limitations.

This research aims to validate what my friend in Nigeria demonstrated through electrical signals: communication takes many forms, and every individual possesses an internal richness deserving recognition. The puppet becomes a translator, a bridge, and ultimately a catalyst for whatever form of expression emerges authentically.

The six-month Cambridge investigation will provide empirical validation while maintaining focus on accessibility—ensuring that any parent can “buy a puppet from a shop and give it to a kid... and actually can develop an authentic self with that puppet and eventually start speaking. That’s the goal, to start actually speaking, if it does work for them.”

This democratization of support challenges therapeutic gatekeeping while honoring professional expertise through collaborative frameworks. As an autistic researcher exploring my own understanding while developing tools for others, I recognize that autism “can either hinder you or make you great”—and the Puppet Method aims to tip that balance toward greatness through authentic expression.

Success means not forcing speech but enabling expression. Not measuring deficits but recognizing differences. Not fixing but bridging. The Puppet Method offers a path where identity precedes communication, where sovereignty enables connection, and where every individual—regardless of verbal capacity—can anchor their authentic self in the world.

Acknowledgments

To my friend whose electrical signals spoke volumes society never heard. To every non-verbal individual whose puppet awaits creation. To the caregivers seeking bridges. This work emerges from shared struggles toward authentic recognition.

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