INNOVATIVE WORLD
Ilmiy tadqiqotlar markazi

ZAMONAVIY ILM-FAN VA INNOVATSIYALAR NAZARIYASI

ILMIY-AMALIY KONFERENSIYA

2026

Google Scholar doi zenodo OpenAIRE

Andijan, Uzbekistan +998335668868 https://innoworld.net

« ZAMONAVIY ILM-FAN VA INNOVATSIYALAR NAZARIYASI » NOMLI ILMIY, MASOFAVIY, ONLAYN KONFERENSIYASI TO‘PLAMI

3-JILD 5-SON

Konferensiya to’plami va tezislar quyidagi xalqaro ilmiy bazalarda indexlanadi

Google Scholar · doi digital object identifier · ResearchGate · zenodo · ADVANCED SCIENCE INDEX · OpenAIRE · Academic Resource Index ResearchBib · DRJI Directory of Research Journals Indexing

www.innoworld.net

O‘ZBEKISTON-2026

Tel:+99833 5668868 | Telegram: @Anvarbek_PhD

A COMPARATIVE ANALYSIS OF COMMUNICATION STYLES IN INTROVERTS AND EXTROVERTS

Khoshimova Mashkhurabonu
Fergana state university, student
mashhurabonuhoshimova@gmail.com
Navruza Aliyeva
Fergana state university, assistant professor

Abstract. This study investigates differences in communication styles between introverted and extroverted individuals, focusing on verbal behavior, nonverbal expression, and communication channel preferences. A quasi-experimental design was employed with 80 undergraduate participants classified using the Eysenck Personality Inventory. Verbal communication was analyzed through measures of speech rate, word count, and lexical diversity during a structured conversational task, while nonverbal behaviors such as eye contact and gesture frequency were coded using an observational scheme. In addition, participants completed a survey assessing their preferred communication channels. The results indicate that extroverts produced significantly higher verbal output and faster speech, along with greater nonverbal expressiveness. In contrast, introverts demonstrated higher lexical diversity and showed a clear preference for written, asynchronous communication modes. These findings suggest that communication differences between personality types are systematic and context-dependent rather than hierarchical, with each group demonstrating distinct communicative strengths.

Keywords: introversion; extroversion; communication styles; verbal communication; nonverbal behavior; personality; communication preferences

Introduction. Communication plays a central role in human interaction, yet individuals differ significantly in how they express, process, and respond to information. One of the most established dimensions explaining these differences is the introversion–extroversion continuum, originally proposed by Carl Jung and later developed into a measurable construct by Hans Eysenck. Extroverts are generally associated with higher sociability, faster verbal expression, and active engagement in social environments, whereas introverts tend to prefer reflective thinking, selective interaction, and lower levels of external stimulation. Despite common assumptions that favor extroverted communication, research shows that communication effectiveness does not depend on personality type alone. Instead, introverts and extroverts display different communication patterns that become advantageous in specific contexts. These differences can be observed in both verbal output and nonverbal behavior, as well as in preferences for communication channels such as face-to-face interaction or written formats.

This study addresses this gap by examining how communication styles differ between introverted and extroverted individuals. It focuses specifically on two aspects: (1) measurable verbal communication features, including speech rate, word count, and lexical diversity, and (2) nonverbal behavior and communication channel preferences, such as eye contact, gestures, and preferred modes of interaction.

Literature review. Research on communication differences between introverted and extroverted individuals has consistently shown that personality traits influence both

verbal behavior and interaction patterns. One of the foundational frameworks for understanding these differences is provided by Hans Eysenck, who proposed that extroverts are characterized by higher sociability and responsiveness to external stimulation, while introverts tend to exhibit more reserved and internally focused behavior. This theoretical distinction has been widely used to explain observable differences in communication styles.

A study by Rada Mihalcea, A. Shafaei, and M. Burzo (2022) analyzed linguistic features in group discussions to determine whether personality traits could be predicted from speech. Using natural language processing techniques, the researchers examined speech data from 143 participants. The findings showed that extroverted individuals produced longer speaking turns and participated more frequently in discussions, while introverted individuals used more cautious and indirect language. The study concluded that linguistic patterns can serve as reliable indicators of personality traits.

Similarly, research by R. K. Sungkur and B. J. Baulum (2020) focused on acoustic and lexical characteristics of speech. Based on speech samples from 40 participants, the study measured variables such as speech rate, pitch, and vocabulary use. The results indicated that extroverts spoke faster and produced a higher volume of speech, whereas introverts demonstrated more precise vocabulary and more complex sentence structures. These findings support the distinction between quantity and quality in verbal communication across personality types.

Further evidence is provided by Susan Cain (2012), who explored behavioral differences between introverts and extroverts in social and professional environments. Drawing on psychological research and case studies, the work highlights that introverts often prefer written communication and environments that allow for preparation and reflection. In contrast, extroverts tend to favor spontaneous, face-to-face interaction and rapid exchange of ideas. The study emphasizes that both styles have distinct advantages depending on situational demands.

Methodology. This study employed a quasi-experimental, mixed-methods design to examine differences in verbal communication, nonverbal behavior, and communication channel preferences between introverted and extroverted individuals. The design combined quantitative measures of speech and behavior with self-reported preference data to ensure a comprehensive analysis.

A total of 80 undergraduate students participated in the study. The sample consisted of 40 males and 40 females, aged between 18 and 26 years (M = 20.4, SD = 1.8). All participants were fluent in English and were recruited from university courses on a voluntary basis. Participants were excluded if they reported speech disorders, neurological conditions, or current use of psychotropic medication to avoid potential interference with communication performance.

Personality classification was conducted using the Eysenck Personality Inventory (EPI). Based on their scores, participants were divided into two groups: introverts (n = 40) and extroverts (n = 40). Individuals with mid-range scores were excluded to maintain clear group distinctions. In addition, participants with high scores on the Lie scale were removed to reduce response bias.

Several instruments were used to collect data aligned with the study objectives. First, verbal communication was measured through a Structured Conversational Task (SCT). Each participant engaged in a 10-minute interaction with a trained confederate. The task included three stages: short informal conversation, discussion of a given topic (for example, opinions about online learning), and a brief problem-solving scenario. All interactions were audio-recorded and later transcribed for analysis. Speech rate (words per minute), total word count, and lexical diversity (type-token ratio) were calculated from these transcripts.

Nonverbal behavior was assessed using a structured observation coding scheme applied to video recordings of the interaction. Two trained raters independently coded behaviors such as eye contact duration (measured in seconds per minute), gesture frequency (number of gestures per speaking turn), and postural openness (rated on a 1–5 scale). Inter-rater reliability was confirmed before analysis to ensure consistency. To examine communication preferences, participants completed a Communication Channel Preference Survey. The survey included 15 Likert-scale items measuring preferences for face-to-face interaction, phone calls, text messaging, and email communication. For example, participants rated statements such as “I prefer discussing important topics in person” or “I feel more comfortable expressing ideas through writing.”

All data were collected in two sessions. In the first session, participants completed the personality inventory and survey. In the second session, they participated in the recorded interaction task under controlled conditions. The confederate followed a standardized script and was not informed of participants’ personality classification to reduce bias. All data were anonymized prior to analysis.

Results. The analysis revealed clear differences in verbal communication between introverted and extroverted participants. Extroverts produced a higher number of words per conversational turn (M = 87.4, SD = 22.1) compared to introverts (M = 52.3, SD = 19.6). They also demonstrated a faster speech rate, averaging 148.3 words per minute (SD = 18.4), whereas introverts averaged 121.7 words per minute (SD = 20.2).

In contrast, introverts showed higher lexical diversity, with a greater type-token ratio (M = 0.68, SD = 0.07) than extroverts (M = 0.59, SD = 0.09). All differences were statistically significant ($p < .001$), with large effect sizes, indicating strong and consistent differences between the two groups.

Table 1. Verbal Communication Measures by Personality Type

Measure	Extroverts M (SD)	Introverts M (SD)	t-value	Effect Size (d)
Words per turn	87.4 (22.1)	52.3 (19.6)	7.21***	1.61
Speech rate (wpm)	148.3 (18.4)	121.7 (20.2)	5.88***	1.31
Type-token ratio	0.59 (0.09)	0.68 (0.07)	4.77***	1.07

Significant differences were also observed in nonverbal behavior. Extroverts maintained longer eye contact (M = 38.2 seconds per minute, SD = 9.4) compared to introverts (M =

24.7, SD = 8.1). They also used more gestures per conversational turn (M = 6.1, SD = 2.3), while introverts used fewer gestures (M = 3.4, SD = 1.8).

In terms of posture, extroverts showed higher levels of openness (M = 3.94, SD = 0.61) than introverts (M = 2.81, SD = 0.74). Conversely, introverts maintained greater interpersonal distance (M = 98.4 cm, SD = 18.6) compared to extroverts (M = 79.1 cm, SD = 15.2). All differences were statistically significant ($p < .001$).

Table 2. Nonverbal Communication Measures by Personality Type

Measure	Extroverts M (SD)	Introverts M (SD)	t-value	Effect Size (d)
Eye contact (sec/min)	38.2 (9.4)	24.7 (8.1)	6.49***	1.45
Gestures per turn	6.1 (2.3)	3.4 (1.8)	5.55***	1.24
Postural openness (1–5)	3.94 (0.61)	2.81 (0.74)	7.02***	1.57
Interpersonal distance (cm)	79.1 (15.2)	98.4 (18.6)	4.74***	1.06

The analysis also revealed a strong relationship between personality type and preferred communication channel. A majority of extroverted participants (72.5%) selected face-to-face communication as their primary preference. In contrast, introverted participants showed a clear preference for written communication, with 45% choosing email and 27.5% preferring text messaging. Only 10% of introverts selected face-to-face interaction as their preferred mode.

No substantial difference was observed in the use of social media, with both groups showing similar levels of preference.

Table 3. Preferred Communication Channels (%)

Channel	Extroverts (%)	Introverts (%)
Face-to-face	72.5	10.0
Email	10.0	45.0
Text messaging	2.5	27.5
Social media	15.0	17.5

Additional analysis was conducted to examine potential gender differences in communication patterns. Male and female participants showed similar results across all measured variables. For example, average words per turn were comparable between males (M = 70.5, SD = 24.9) and females (M = 69.3, SD = 23.7), and speech rate showed minimal variation (males: M = 135.8 wpm; females: M = 134.6 wpm). Lexical diversity also remained consistent across genders.

Statistical testing indicated that these differences were not significant ($p > .05$), suggesting that gender did not have a measurable effect on verbal or nonverbal communication in this sample. Therefore, communication differences observed in this study are primarily attributable to personality type rather than gender.

Table 4. Verbal Communication Measures by Gender

Measure	Male M (SD)	Female M (SD)
Words per turn	70.5 (24.9)	69.3 (23.7)
Speech rate (wpm)	135.8 (19.1)	134.6 (18.8)
Type-token ratio	0.63 (0.08)	0.64 (0.07)

Discussion. The findings of this study show consistent differences in communication styles between introverted and extroverted individuals across verbal behavior, nonverbal expression, and communication preferences. These differences are systematic and align with established personality frameworks, particularly the model proposed by Hans Eysenck, which links extroversion to higher social engagement and responsiveness to external stimuli.

The results related to verbal communication confirm that extroverts produce a greater volume of speech and speak at a faster rate. This pattern supports previous findings by Rada Mihalcea et al. (2022), who observed that extroverts contribute more actively in group discussions and tend to dominate conversational space. In contrast, introverts demonstrated higher lexical diversity, indicating more varied and precise language use. This supports findings by R. K. Sungkur and B. J. Baulum (2020), who reported that introverts tend to produce more complex and carefully structured speech. Taken together, these results suggest that extroverts prioritize quantity and speed of communication, while introverts emphasize linguistic precision.

The analysis of nonverbal behavior further reinforces these differences. Extroverts maintained longer eye contact, used more gestures, and displayed more open body posture, all of which are commonly associated with active social engagement. Introverts, on the other hand, showed more controlled nonverbal expression and maintained greater interpersonal distance. These patterns are consistent with broader behavioral observations discussed by Susan Cain (2012), who noted that introverts often prefer lower levels of external stimulation and more reserved interaction styles. The current findings extend this understanding by providing measurable evidence of these differences in a controlled setting. Clear differences were also observed in communication channel preferences. Extroverts showed a strong preference for face-to-face interaction, while introverts favored written and asynchronous forms such as email and text messaging. This supports findings by Adam M. Grant (2013), who demonstrated that introverts tend to perform more effectively in contexts that allow time for reflection and reduced immediate social pressure. These results suggest that communication effectiveness depends not only on individual ability but also on the match between personality and communication context.

Several limitations should be considered when interpreting these findings. First, the sample consisted only of undergraduate students, which limits the generalizability of the results to broader populations. Second, the use of a structured conversational task may not fully reflect natural communication behavior in real-world settings. Third, cultural factors were not examined, although communication styles may vary across cultural contexts. Finally, self-reported measures of communication preferences may be influenced by response bias.

Conclusion. This study examined differences in communication styles between introverted and extroverted individuals, focusing on verbal behavior, nonverbal expression, and communication channel preferences. The results show that extroverts tend to communicate with higher verbal output, faster speech, and more expressive nonverbal behavior, while introverts demonstrate greater lexical diversity, more controlled nonverbal patterns, and a clear preference for written communication. These findings confirm that communication differences between personality types are consistent and measurable across multiple dimensions. Importantly, the results indicate that neither group is more effective overall; instead, each demonstrates strengths that become more or less visible depending on the context. Extroverts are better suited to environments that require immediate interaction and continuous verbal engagement, whereas introverts perform more effectively in situations that allow time for reflection and structured expression. These outcomes suggest that communication should be evaluated based on context rather than a single standard, especially in academic and professional settings where participation is often linked to performance. Future research should expand the sample beyond university students and explore how cultural and situational factors influence communication patterns across personality types.

References:

1. Cain, S. (2012). Quiet: The power of introverts in a world that can't stop talking. Crown Publishing Group.
2. Eysenck, H. J. (1967). The biological basis of personality. Charles C. Thomas.
3. Grant, A. M. (2013). Rethinking the extraverted leadership advantage: The role of employee proactivity. Academy of Management Journal, 56(2), 528–550. https://doi.org/10.5465/amj.2011.0270
4. Mihalcea, R., Shafaei, A., & Burzo, M. (2022). Linguistic measures of personality in group discussions. PLOS ONE, 17(9), e0274016.
5. Sungkur, R. K., & Baulum, B. J. (2020). Identification of speech characteristics to distinguish human personality of introversive and extroversive groups. PLOS ONE, 15(4), e0231083.