

# Horse Personality Simplified: A Scientific Approach to Equine Temperament

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**Abstract:** The article titled "Horse Personality Simplified: A Scientific Approach to Equine Temperament" discusses the complexity of horse personality and its significance in training, welfare, and human-horse interactions. The study aims to propose a simplified classification of horse personality into four types: energetic/reliable, energetic/unreliable, passive/reliable, and passive/unreliable. Using a systematic literature review, the authors identified 24 key behavioral traits commonly used to describe horse temperament. A questionnaire was administered to horse handlers and veterinarians to evaluate the correlation between these traits and the proposed personality types. The results suggest that horse personality can be effectively categorized using these four types, based on behavioral traits such as energy level and reliability in response to humans. This model offers a practical framework for improving human-horse relationships, facilitating safer and more efficient handling, and optimizing training and care strategies. The study also emphasizes the potential for future research to explore physiological correlations with these personality types, such as heart rate variability and hormonal changes, to further understand horse temperament. The authors conclude that this simplified approach provides a useful tool for veterinarians, equestrian professionals, and researchers, offering a straightforward method for assessing horse behavior and temperament in various contexts.

**Keywords:** equine, behavior, personality, temperament.

## 1. Introduction

Horse personality is a complex and multifaceted subject that has garnered increasing attention in the fields of ethology, veterinary science, and equine psychology. Just as in humans, personality in horses refers to the consistent patterns of behavior, emotion, and interaction that characterize individual animals. Understanding these personality traits is crucial for improving training methods, enhancing animal welfare, and fostering effective human-horse relationships [1]. Horses, as social animals, exhibit a wide range of personality traits, influenced by genetic, environmental, and social factors [2].

Research indicates that horse personality can manifest in various dimensions, such as sociability, competitiveness, and emotional reactivity. These traits not only affect a horse's behavior in social settings and during training but also have implications for their health and well-being. For example, horses with more docile personalities may respond better to conventional training techniques, while those with higher reactivity may require more specialized approaches [3]. Studies suggest that genetic factors play a significant role in determining personality traits in horses. Selective breeding for specific traits has influenced temperament, with certain breeds exhibiting more docile or more spirited behaviors [1].

Early experiences, such as handling and socialization during the critical developmental stages, are vital in shaping a horse's personality. Studies have shown that positive interactions with humans and other equines can enhance confidence and reduce anxiety,

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leading to healthier behavioral profiles [4]. Conversely, negative experiences can lead to fearful or aggressive tendencies, which can complicate training and care [2]. Horses are herd animals, and their personality can be affected by their social environment. The establishment of hierarchies within a group can influence individual behavior [5]. It's essential to note that a horse's physical health can also impact its personality. Pain, discomfort, or illness can lead to behavioral changes, such as aggression or withdrawal. Thus, a comprehensive understanding of horse personality must take into account their physical health and emotional well-being [6]. Moreover, understanding horse personality has practical applications beyond training; it can inform breeding decisions, herd management practices, and therapeutic approaches in equine-assisted activities [2]. As equestrian sports and therapy programs grow in popularity, recognizing the individuality of horses becomes essential to optimize their performance and ensure their well-being [1]. Several methods have been developed to assess horse personality scientifically. One widely-used approach is the Horse Personality Questionnaire (HPQ), which evaluates horses based on five personality traits: Agreeableness, Neuroticism, Extroversion, Gregariousness towards People, and Gregariousness towards Horse [3]. Observational studies in natural and controlled settings also contribute to understanding how horses respond to different stimuli and social situations [6].

Innovative research has employed tools such as behavioral tests, where horses are exposed to novel objects or scenarios to evaluate their reactions. These observations can help categorize personalities into similar profiles, facilitating more effective management and training practices aligned with each horse's unique characteristics [5]. Understanding horse personality has profound implications for training and behavior management. Trainers who recognize and respect a horse's personality traits can tailor their training methods to align with the horse's natural tendencies, thereby improving learning outcomes and enhancing the horse's well-being [4].

For example, a horse that is naturally curious may thrive in a training regimen that involves exploration and problem-solving, while a more anxious horse might benefit from a gradual desensitization approach [2]. Moreover, acknowledging personality can help foster better relationships between horses and their handlers. Horses that are understood through the lens of their individual personalities are more likely to develop trust and rapport with humans, leading to safer and more enjoyable interactions, whether in recreational riding, competitive sports, or therapeutic settings [6].

However, the multitude of behavioral traits used to describe horse personality make it difficult to categorize them as clearly as human personality types, such as choleric, sanguine, melancholic, and phlegmatic. The aim of this study was to propose a standardized nomenclature of horse personality types by merging all characteristics found throughout literature into only four types: energetic/reliable, energetic/unreliable, passive/reliable, and passive/unreliable.

## 2. Materials and Methods

### *Study design*

The study was designed in two stages. In the first stage we performed a thorough research of the literature in order to determine the most common behavioral traits attributed to horses by other scientists in their studies. Secondly, we created a questionnaire comprising the most common behavioral traits identified and asked respondents to assign behavioral traits with four personality types. Lastly, we analyzed data to detect whether there is consensus among the responders and if horse personality could be easily described by only four personality types.

### *Literature research*

We performed a systematic search of the literature using the key words horse, personality, traits, temperament and we were able to summarize the behavioral traits used by other researchers to define horse personality.

### *Questionnaire*

Questionnaires were administered online via a secure survey platform (Typeform) to facilitate ease of access and data management. Data were collected electronically and checked for completeness and consistency before analysis. All data were anonymized and securely stored in accordance with ethical research guidelines and data protection regulations.

The participants were asked to associate (match/assign) as many behavioral traits they considered (table 1) with the proposed temperament types 1. energetic&reliable 2. energetic&unreliable 3. passive&reliable 4. passive&unreliable.

The questionnaire encompasses two types of questions: one is related to the level of energy (Energetic & Passive) and the other to the reactivity to humans (Reliable & Unreliable).

The questionnaire was sent to 1300 subjects covering the areas of interest in first time human-horse encounter (FTHHE) : (1) students from the Faculty of Veterinary Medicine and Faculty of Animal Sciences from USAMV Cluj-Napoca, Romania (2) veterinarians, members of Romanian Equine Veterinarian Association and (3) people involved in horse handling, riding, training, and breeding from 78 equestrian facilities in Romania. The questionnaire is represented in Table 1.

**Table 1.** The questionnaire distributed to respondents listed each of the 24 behavioral traits used to describe horse behavior in the literature, with each trait displayed in a row on the left. Participants were asked to assign each behavioral trait to one of the personality types listed in the first row using the online platform, TypeForm.

		Energetic / reliable	Energetic / unreliable	Passive / reliable	Passive / unreliable
1	Intelligent				
2	Calm				
3	Energetic				
4	Slow				
5	Skittish				
6	Dominant				
7	Anxious				
8	Attentive				
9	Friendly				
10	Reactive				
11	Solitary				
12	Tensed				

1	Suspicious
3	
1	Patient
4	
1	Obedient
5	
1	Stubborn
6	
1	Cautious
7	
1	Reliable
8	
1	Aggressive
9	
2	Fearful
0	
2	Nervous
1	
2	Social
2	
2	Cooperative
3	
2	Intelligent
4	

### 3. Results

#### 3.1. Literature research

We conducted a comprehensive review of 80 papers, identifying 24 commonly cited behavioral traits used by the authors. The selection of these traits was based on their frequency of occurrence across the literature. Each of the identified traits appeared more than 10 times in relation to horse temperament, indicating their relevance and significance in the field.

### 3.2. Questionnaire

Out of the 1,300 questionnaires distributed, 1,260 were validated as complete and correctly filled. The results are presented in Figure 1 as the total number of respondents per option, and in Figure 2 as the percentage of respondents per option.

**Figure 1.** Number of responders that associated one behavioral trait with one of the personality types. A&C – active and confident; A&U – active and unconfident; P&C – passive and confident; P&U – passive and unconfident.

nr. total	INTELLIGENT	CALM	ENERGETIC	SLOW	SKITTISH	DOMINANT	ANXIOUS	PLAYFUL	ATTENTIVE	FRIENDLY	REACTIVE	SOLITARY	TENSED	SUSPICIOUS	PATIENT	OBEDIENT	STUBBORN	CAUTIOUS	RELIABLE	AGGRESSIVE	FEARFULL	NERVOUS	SOCIAL	COOPERATIVE
A & C	1242	239	1247	13	101	1123	60	1184	1156	1189	342	9	127	18	356	667	61	11	1144	189	391	75	1202	743
A & U	1008	10	958	63	1021	302	1135	441	164	14	1098	504	1210	67	41	29	428	1165	554	1123	1184	545	454	145
P & C	54	1222	25	1235	25	983	17	365	50	1252	27	454	22	668	1235	1221	513	62	844	22	34	6	956	946
P & U	76	315	88	1121	1096	63	1089	1201	76	21	1159	1134	712	1096	71	126	1109	1084	36	983	1005	1199	123	53

**Figure 2.** Percentage of responders that associated one behavioral trait with each personality type proposed. A&C – active and confident; A&U – active and unconfident; P&C – passive and confident; P&U – passive and unconfident.

%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
A & C	99	19	99	1	8	89	5	94	92	94	27	1	10	1	28	53	5	1	91	15	31	6	95	59
A & U	80	1	76	5	81	24	5	35	92	1	27	40	10	5	28	2	5	92	91	89	31	43	95	12
P & C	4	97	2	98	2	78	1	29	4	99	2	36	2	53	98	97	41	5	67	2	3	0	76	75
P & U	6	25	7	89	87	5	86	95	6	2	92	90	57	87	6	10	88	86	3	78	80	95	10	4

### 4. Discussion

From the outset, we made it clear that this proposal is not intended to resolve the ongoing debate over horses’ temperamental and personality traits, nor to add further confusion to a field where much remains unclear. The discussion around defining temperament and personality requires robust scientific approaches, not only for equids but for many other species as well.

Our aim is to introduce simple and effective markers for regular human-horse interactions, prioritizing the safety and welfare of both parties. As the results indicate, the proposed typologies are straightforward and easily understood, suggesting both simplicity and effectiveness. The consistent alignment of subjects with the behavioral characteristics of the proposed types demonstrates their coherence across diverse and large groups. Additionally, the use of terms such as "energetic," "confident," "passive," and "non-confident" resonates with people interacting with horses, as it aligns with their expectations and is easy to grasp.

Another potential application of this model lies in studies related to horse behavior, especially where grouping horses with different temperamental or personality types presents a complex challenge. Measuring emotional states—such as reactions to humans or the environment, anxiety, fear, arousal, etc.—across a wide variety of breeds and individuals with varying levels of reactivity, energy, and habituation to humans requires a method for sorting horses into consistent groups.

Of course, there will always be some degree of subjectivity in classifying horses, and there are numerous traits that could be used to group them. Several studies on equine emotional and behavioral characteristics have proposed different temperamental styles, yet there remains significant inconsistency in the variables used. Establishing a common language is a critical first step toward creating a foundation for future research. Using these temperament types to explore correlations between physiological states—such as heart rate variability (HRV) or hormonal changes—and behavioral patterns within specific temperamental groups could provide valuable insights.

As with research into human temperament and personality, defining behavioral traits such as novelty seeking, harm avoidance, reward dependence, neuroticism, agreeableness, extraversion, openness, and conscientiousness often involves a margin of subjectivity [7,8]. A key issue in the debate surrounding general factor models of temperament is whether these factors represent substantive phenomena or are merely methodological artifacts or statistical byproducts [9].

Until further progress is made in clarifying the nature of temperament, we wish to underscore the simplicity and efficiency of this model, which can yield positive outcomes in first-time horse-human encounters. Beyond the scientific foundation, the ability to communicate critical information quickly between horse handlers can significantly enhance both human safety and equine welfare. Condensing important behavioral traits into just two descriptive words is essential for the FTHHE. In veterinary schools, equestrian centers, and for certain horse handlers, approaching an unfamiliar animal is a common occurrence. Basic information about a horse's natural reactivity and energy level, delivered promptly, can make the difference between a positive or negative interaction.

Future Directions refer to implementing the proposed typology in veterinary schools and equestrian centers as part of the routine vocabulary used in horse-human interactions. Conducting further behavioral studies using these temperament categories to assess whether statistical data reveal strong correlations between these traits and physiological responses.

## 5. Conclusions

This study introduces a simplified approach to categorizing horse temperament and personality traits, focusing on ease of understanding and practical application in human-horse interactions. By reviewing existing literature and identifying commonly cited behavioral traits, we developed a set of temperamental types—energetic, confident, passive, and non-confident—designed to offer a straightforward framework for assessing horses in various contexts.

The results demonstrate that these proposed typologies are coherent, easy to understand, and applicable across diverse groups. The consistency with which participants aligned behavioral traits with the proposed types underscores their potential as effective markers for horse temperament. Furthermore, this model facilitates quick and efficient communication between horse handlers, which can significantly improve both human safety and horse welfare, particularly in situations where immediate assessment of a horse's reactivity and energy level is crucial.

While the field of equine temperament research remains complex, and subjective factors will always play a role in classification, this proposal offers a practical tool for use in equestrian centers, veterinary schools, and other settings. Future research should focus on validating these categories through physiological data, exploring correlations between temperament types and measurable biological markers such as heart rate variability and hormonal changes.

In summary, the simplicity and practicality of this model offer valuable insights into horse-human interactions and present a foundation for further study into the behavioral and physiological aspects of equine temperament.

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