Understanding Canine Communication

Introduction

Domestic dogs (Canis lupus familiaris), descended from the grey wolf (Canis lupus), are highly social animals renowned for their ability to communicate with both their own species and humans. Domestication has uniquely shaped canine communication, enabling dogs to excel in cross-species interaction. This comprehensive guide explores how dogs communicate through body language, vocalisations, facial expressions, eye contact, behavioural synchronisation, and emotional contagion, and how humans communicate with dogs using verbal cues, hand signals, whistles, luring, lead pressure and release, body posture, and other natural signals. These methods are applied across roles such as obedience, agility, herding, and addressing behavioural issues like reactivity or aggression. By understanding these signals and methods, owners can foster trust, enhance training, and build stronger bonds with their dogs, as emphasised in relationship-based training approaches (Wright, 2024).

How Dogs Express Themselves

Dogs use visual, auditory, and chemical signals to convey emotions, intentions, and needs. Effective communication requires both the sender's signal and the receiver's accurate interpretation, with dogs employing stylised displays to influence behaviour, whether to assert dominance, invite play, or seek comfort (Bradshaw & Rooney, 2016).

Body Language

A dog's posture, movements, and demeanour offer critical insights into their emotional state.

- Overall Impression: Dogs adjust their body size to communicate. Piloerection (raising hackles) increases apparent size, signalling confidence, alertness, or aggression in contexts like fear or stress. Conversely, a lowered body, tucked tail, and flattened ears reduce size, indicating submission or fear (Wright, 2019).
- Tail Language: Tail position and movement convey nuanced emotions:
 - Loose, Side-to-Side Wag: Signals friendliness or excitement.
 - High, Stiff Tail: Indicates alertness, confidence, or dominance.
 - High Wagging Tail: Reflects happiness, often during greetings.
 - Low Wagging Tail: Suggests submissiveness or a relaxed demeanour.
 - Tucked Tail: Indicates fear, anxiety, or submission, often in response to threats.
 - **Wagging Direction**: Rightward wags suggest positive emotions (e.g., seeing their owner), while leftward wags may indicate stress (Siniscalchi et al., 2018).

- Slow Wagging Tail: Reflects uncertainty or caution.
- Fast Wagging Tail: Indicates excitement, though context is key.
- Tail Held to the Side: Suggests attentiveness or curiosity.
- Fluffy Tail (Piloerection): Signals arousal or a threat response.
- **Stiff, Quivering Tail**: Indicates focus or readiness, common in herding or hunting (Wright, 2019).
- **Submissive Signals**: Dogs signal non-threatening intentions through:
 - Passive Submission: Rolling onto the back to expose the belly, showing vulnerability.
 - Active Submission: Approaching sideways, crouched, with a low-wagging tail and averted gaze, often to solicit affection or de-escalate conflict. These behaviours, seen in puppies or during food-begging, reinforce affectionate bonds (Bradshaw & Rooney, 2016).
- **Playful Signals**: Include bouncy, exaggerated movements (e.g., hopping) and the play bow (lowering the front end while raising the hind), inviting play (Wright, 2019).
- Aggressive or Defensive Signals:
 - **Stiff, Tense Posture**: Signals perceived danger or defensiveness, often with growling.
 - Raised Hackles: Indicates threat, fear, or arousal.
 - Bared Teeth (Snarl): A warning to back off, showing readiness to defend (Wright, 2019).

Facial Expressions

Facial expressions convey emotions and are influenced by the audience effect, where dogs adjust expressions based on human attention (Kaminski et al., 2017).

- Mouth and Lips:
 - Relaxed, Open Mouth with Tongue Out: Indicates contentment, though it
 may reflect exertion or heat.
 - Tight or Pulled-Back Lips: Suggests tension, fear, or aggression.
 - **Submissive Grin**: Exposing front teeth, paired with submissive behaviours, signals appearement (Wright, 2019).
- Facial Muscles:
 - Relaxed Face: Soft muscles indicate calmness.
 - Tense Face: Tension around the mouth or eyes suggests stress or readiness to react.

• Audience Effect: Dogs show more expressions (e.g., raising inner brows, showing tongue) when humans face them, indicating intentional communication (Kaminski et al., 2017).

Eye Contact

Eye contact varies by context and recipient, conveying emotions from confidence to anxiety.

- Dog-to-Dog Communication:
 - Direct Stare: A challenging stare can escalate conflict.
 - Avoiding Eye Contact: Signals appearement or anxiety.
 - Whale Eye: Showing the whites of the eyes (sclera) by turning the head while keeping eyes fixed, indicating stress, anxiety, or discomfort, often during resource guarding or feeling cornered (Hare & Tomasello, 2005).
 - **Eye Region Focus**: Dogs prioritise the eye area to assess emotional states, with soft eyes indicating calm and hard or wide eyes showing tension (Siniscalchi et al., 2018).
- **Dog-to-Human Communication**: Dogs gaze at humans to solicit attention or help, avoiding forbidden actions when watched. Mutual gaze triggers oxytocin release, strengthening bonds (Koyasu et al., 2020).

Vocalisations

Dogs use vocalisations to express emotions, with meanings dependent on context.

- Barking:
 - Excitement/Playfulness: Short, high-pitched barks signal a desire to play.
 - Alert/Warning: Rapid barking with an alert posture indicates a perceived threat.
 - **Loneliness/Boredom**: Excessive barking when alone suggests loneliness (Wright, 2019).
- Growling: Signals discomfort or protectiveness, though playful growling occurs in context.
- Howling: Used for long-distance communication or in response to sounds, varying by breed.
- Whining:
 - Attention-Seeking: Expresses excitement or desire for resources.
 - Anxiety/Discomfort: Prolonged whining indicates a need for reassurance.
- Yelping: Signals pain or distress, requiring immediate health checks.
- Huffing/Sighing: Indicates relaxation.

• Mumbling/Grumbling: Playful sounds during games (Wright, 2019).

Ears

Ear position, despite breed variations, conveys emotional states.

- Forward-Facing Ears: Indicate attentiveness or excitement.
- Flattened Back Ears: Signal fear, anxiety, or submission.
- One Ear Forward, One Back: Suggests uncertainty.
- Sideways "Aeroplane Ears": Reflect conflicting emotions (Wright, 2019).

Behavioural Synchronisation

Dogs mirror human or canine behaviours, fostering social cohesion (Duranton & Gaunet, 2018).

- **With Humans**: Dogs stay close, move, or gaze in sync with owners, using social referencing to navigate unfamiliar situations (e.g., assessing novel objects).
- **With Other Dogs**: Synchronisation during play reduces conflict and strengthens bonds.
- **Benefits**: Enhances bonds, reduces predation risk, and supports cooperative tasks like hunting (Maeda et al., 2021).

Emotional Contagion

Dogs exhibit emotional contagion, perceiving and mirroring human emotions, which strengthens social bonds (Huber et al., 2017).

- Mechanism: Dogs detect human emotional states through facial expressions, vocal tones, and body language, responding with similar emotions. For example, a dog may become anxious when sensing a human's stress or show excitement when the human is joyful.
- **Examples**: Dogs often approach humans displaying sadness with comforting behaviours (e.g., nuzzling) or match playful energy during happy interactions.
- Applications: Understanding emotional contagion aids in training and bonding, as
 dogs are more responsive when humans project calm, confident emotions during
 challenging tasks (Huber et al., 2017).

Human-Dog Communication: Methods and Applications

Humans communicate with dogs using verbal cues, hand signals, whistles, luring, lead pressure and release, body posture, and other natural signals, tailored to roles like obedience, agility, herding, or behavioural correction.

Verbal Cues

Tone is critical in verbal communication, influencing dog responses.

Pitch and Intonation:

- High-Pitched, Upbeat Tones: Convey excitement or encouragement, effective for puppies.
- Low-Pitched Tones: Signal calmness or authority, suitable for commands like "stay."
- **Positive Reinforcement**: Warm tones during praise motivate desired behaviours and strengthen bonds.
- **Commands and Corrections**: Firm tones convey authority, while harsh tones can cause anxiety.
- **Emotional Sensitivity**: Dogs respond to human emotions, offering comfort to sad tones or excitement to happy ones (Wright, 2019).

Hand Signals

Hand signals provide clear visual cues, especially in noisy environments or for hearing-impaired dogs (Wright, 2024). Key signals include:

Basic Commands:

- **Sit**: Raise hand, palm up, in an upward motion.
- **Down**: Extend arm downward, palm facing the ground.
- **Stay**: Extend arm, palm facing dog, in a "stop" gesture.
- Come: Sweep hand toward chest, palm up.

Advanced Commands:

- Spin: Circular motion with a treat away from the dog's nose.
- Jump: Extend arm upward, then down quickly.
- Go to Crate: Point toward the crate.
- **Applications**: Used in obedience (e.g., "sit"), agility (e.g., "jump"), and behavioural training (e.g., "leave it" for reactivity). Consistency and pairing with verbal cues enhance effectiveness.

Whistle Training

Whistle training excels for long-distance or noisy environments, particularly in herding (Wright, 2024).

Whistle Signals:

- Recall (Come): Three long blasts.
- Sit: One long blast.
- Stay: Three short blasts.
- Heel: Alternating short and long blasts.

- Herding Commands:
 - Away: Sharp blast with arm sweeping away (counter-clockwise herding).
 - Come By: Sharp blast with arm sweeping toward (clockwise herding).
 - Steady: Two short blasts, one long blast (calm pace).
 - Lie Down/Stop: Long, continuous blast.
 - That'll Do: Series of short, quick blasts (task complete).
- **Training Process**: Associate whistles with rewards (e.g., treats), introduce commands gradually, and practise in varied settings.
- Applications: Ensures safety in open spaces and supports herding tasks.

Luring

Luring uses rewards (e.g., treats) to guide behaviours (Wright, 2024).

- Mechanism: Hold a treat near the dog's nose to prompt actions (e.g., upward for "sit," downward for "down").
- · Applications:
 - **Obedience**: Teach commands like "sit" or "down."
 - Tricks: Guide "spin" or "roll over."
 - Shaping: Break down complex tasks (e.g., agility obstacles) into steps.
- Benefits: Encourages voluntary behaviour without force.
- Transition: Fade lures, replacing with cues to avoid dependency.

Lead Pressure and Release

Lead pressure and release uses gentle leash tension, releasing as a reward for compliance (Wright, 2024).

- **Mechanism**: Apply light pressure to prompt movement (e.g., toward handler for "heel"), releasing upon compliance.
- · Applications:
 - Loose Lead Walking: Encourage walking without pulling.
 - **Reactivity Training**: Guide dogs away from triggers during "Look at That" or "Leave It" exercises.
 - Herding: Direct livestock movements in early training.
- Benefits: Provides clear feedback and enhances control.

Marking Rewards

Marking uses a verbal cue (e.g., "yes") or clicker to pinpoint desired behaviours (Wright, 2024).

- Mechanism: Mark the exact moment a behaviour occurs (e.g., sitting), followed by a reward.
- Applications:
 - Obedience: Reinforce commands like "sit" or "come."
 - Reactivity Training: Mark calm responses to triggers.
 - Complex Behaviours: Shape agility or trick sequences.
- Benefits: Enhances clarity and accelerates learning.

Body Posture and Natural Signals

Dogs naturally interpret human body posture, tones of voice, and other unintentional signals, which can be leveraged in communication (Wright, 2019).

- Body Posture:
 - **Upright, Confident Stance**: Signals authority or leadership, encouraging dogs to follow commands (e.g., during "heel" training).
 - Crouched or Playful Posture: Invites play or reduces perceived threat, useful for engaging shy dogs.
 - Turned Body or Averted Gaze: Signals non-threatening intentions, calming reactive dogs.
- **Tones of Voice**: Beyond verbal cues, dogs respond to emotional nuances in tone. For example, a soothing tone calms an anxious dog, while an excited tone encourages playfulness (Koyasu et al., 2020).
- Other Signals: Dogs pick up on facial expressions (e.g., smiling vs. frowning), gestures (e.g., pointing), and movement (e.g., fast approach vs. slow retreat). For instance, pointing can direct a dog's attention during agility, while a relaxed smile reinforces trust.
- **Applications**: Used in training to project confidence (e.g., during reactivity work), in bonding to mirror playful energy, and in calming anxious dogs by adopting non-threatening postures (Wright, 2024).

Desensitisation and Reactivity Training

For reactivity or guarding issues, "Look at That" (LAT) and "Leave It" protocols build neutral associations and impulse control (Wright, 2024).

- Process:
 - **LAT**: At a safe distance, mark and reward the dog for glancing at a trigger without reacting, building positive associations.

- **Leave It**: Mark and reward when the dog looks away from the trigger, reinforcing disengagement.
- Gradually reduce distance to the trigger, using lead control to maintain safety.
- Applications: Addresses reactivity (e.g., barking at other dogs) by encouraging calm responses.

Applications Across Roles

- Obedience: Verbal cues, hand signals, and marking ensure reliable responses, fostering control (e.g., Mia's success with Bella, a skittish rescue, using relationshipbased training) (Wright, 2024).
- **Agility**: Hand signals (e.g., "jump") and luring guide obstacle navigation.
- Herding: Whistle commands and lead pressure direct precise movements.
- **Behavioural Correction**: Desensitisation protocols address reactivity, as seen with Charlie, a fearful Labrador transformed through trust-building (Wright, 2024).
- **Pet Companionship**: Relationship-based training enhances trust and adaptability, as with Daisy, a rescue dog overcoming fear of new environments (Wright, 2024).

Factors Influencing Communication

- **Context**: Signals like tail wagging vary in meaning (e.g., excitement in play, aggression in confrontation).
- **Individual Differences**: Breed (e.g., floppy ears limit expressiveness), temperament, and past experiences shape communication.
- **Health**: Pain or illness alters body language (e.g., limping, whale eye), requiring veterinary checks.
- **Environment**: Noisy or unfamiliar settings amplify anxiety, affecting signals like flattened ears or whale eye (Wright, 2019).

Building Trust and Communication

Relationship-based training, focusing on positive reinforcement and empathy, transforms fearful or reactive dogs into confident companions, as seen in cases like Max, a hyperactive Border Collie (Wright, 2024). Consistent cues and rewards, combined with awareness of emotional contagion and natural signals, prevent misunderstandings and strengthen bonds.

Conclusion

Understanding canine communication involves interpreting body language, vocalisations, facial expressions, eye contact, behavioural synchronisation, and emotional contagion, while using verbal cues, hand signals, whistles, luring, lead pressure and release, body posture, and natural signals to communicate effectively. These methods, applied across

obedience, agility, herding, and behavioural correction, empower owners to build harmonious relationships. For deeper insights, explore canine communication courses, books, and visual resources.

Glossary

- **Active Submission**: Approaching sideways, crouched, with a low-wagging tail and averted gaze, to signal non-threatening intentions.
- Audience Effect: Dogs adjusting facial expressions based on human attention, indicating intentional communication.
- **Behavioural Synchronisation**: Mirroring human or canine behaviours to foster social cohesion.
- **Emotional Contagion**: Dogs perceiving and mirroring human emotions, strengthening social bonds.
- Luring: Using a reward to guide a dog into a desired behaviour.
- **Marking**: Using a cue (e.g., "yes") or clicker to pinpoint a desired behaviour.
- Passive Submission: Rolling onto the back to expose the belly, indicating vulnerability.
- **Piloerection**: Raising hackles, signalling arousal or aggression.
- Lead Pressure and Release: Using leash tension to guide behaviour, with release as a reward.
- Social Referencing: Dogs looking to humans for cues in unfamiliar situations.
- **Submissive Grin**: Exposing front teeth to signal appearement.
- Whale Eye: Showing the whites of the eyes by turning the head while keeping eyes fixed, indicating stress or discomfort.

Further Reading

- Wright, R. (2024). <u>Importance of Timing and Marking Rewards.</u> Dog Aggression Specialist Publication. Explains the role of precise timing and marking in reinforcing desired behaviours.
- Wright, R. (2024). <u>Combined Desensitisation</u> Using 'Look at That' and 'Leave It'.
 Dog Aggression Specialist Publication. Outlines protocols for addressing reactivity and impulse control issues.
- Wright, R. (2024). <u>Relationship-Based Training</u>. Dog Aggression Specialist Publication. Highlights positive reinforcement and empathy in building trust with dogs.
- Wright, R. (2024). <u>Teaching Your Dog the Whistle</u>. Dog Aggression Specialist Publication. A guide to whistle training for long-distance and herding tasks.

- Wright, R. (2024). <u>Fifty Hand Signals for Dog Training</u>. Dog Aggression Specialist Publication. Lists 50 visual cues for obedience, agility, and behavioural training.
- Horowitz, A. (2016). <u>Inside of a Dog: What Dogs See</u>, Smell, and Know. Scribner. A comprehensive look at canine cognition and communication.
- McConnell, P. B. (2002). <u>The Other End of the Leash</u>: Why We Do What We Do Around Dogs. Ballantine Books. Insights into human-dog communication dynamics.
- Nagasawa, M., et al. (2015). Oxytocin-gaze positive loop and the coevolution of human-dog bonds. Science, 348(6232), 333-336. Explores emotional bonding and contagion between dogs and humans

Glossary

- **Active Submission**: Approaching sideways, crouched, with a low-wagging tail and averted gaze, to signal non-threatening intentions.
- Audience Effect: Dogs adjusting facial expressions based on human attention, indicating intentional communication.
- **Behavioural Synchronisation**: Mirroring human or canine behaviours to foster social cohesion.
- Luring: Using a reward to guide a dog into a desired behaviour.
- **Marking**: Using a cue (e.g., "yes") or clicker to pinpoint a desired behaviour.
- Passive Submission: Rolling onto the back to expose the belly, indicating vulnerability.
- **Piloerection**: Raising hackles, signalling arousal or aggression.
- Lead Pressure and Release: Using leash tension to guide behaviour, with release as a reward.
- Social Referencing: Dogs looking to humans for cues in unfamiliar situations.
- Submissive Grin: Exposing front teeth to signal appearement.
- Whale Eye: Showing the whites of the eyes by turning the head while keeping eyes fixed, indicating stress or discomfort.

References

- Bradshaw, J. W. S., & Rooney, N. J. (2016). What do submissive signals mean to dogs?. Journal of Veterinary Behavior: Clinical Applications and Research, 11, 47-54.
- Duranton, C., & Gaunet, F. (2018). *Human-dog behavioural synchronisation: a review of the existing evidence*. Animal Cognition, 21, 495-514.
- Hare, B., & Tomasello, M. (2005). *Human-like social skills in dogs?*. Trends in Cognitive Sciences, 9(9), 439-444.

- Huber, A., Barber, A. L. A., Faragó, T., Müller, C. A., & Huber, L. (2017).
 Investigating emotional contagion in dogs (Canis familiaris) to emotional sounds of humans and conspecifics. Animal Cognition, 20(4), 703-715.
- Kaminski, J., et al. (2017). *Human attention affects facial expressions in domestic dogs*. Scientific Reports, 7, 12914.
- Koyasu, K., Asakawa, M., Bonnaud, L., Takagi, S., & Fujita, K. (2020). *Dogs* console their owners more than unfamiliar people. Animal Behavior and Cognition, 7(1), 70-78.
- Maeda, Y., Sugawara, A., & Uchiyama, H. (2021). Spontaneous behavioral synchronization between dogs and humans during an object-choice task. PloS one, 16(3), e0248678.
- Nagasawa, M., Mitsui, S., En, S., Ohtani, N., Ohta, M., Sakuma, Y., ... & Kikusui, T. (2015). Oxytocin-gaze positive loop and the coevolution of human-dog bonds.
 Science, 348(6232), 333-336.
- Siniscalchi, M., D'Ingeo, S., Fornelli, S., & Quaranta, A. (2018). *Gaze behavior and emotional state in dogs*. Journal of Veterinary Behavior: Clinical Applications and Research, 26, 1-7.
- Wright, R. (2019). Understanding Canine Body Language. Dog Aggression Specialist Publication.
- Wright, R. (2024). Importance of Timing and Marking Rewards. Dog Aggression Specialist Publication.
- Wright, R. (2024). Combined Desensitisation Using 'Look at That' and 'Leave It'.
 Dog Aggression Specialist Publication.
- Wright, R. (2024). *Relationship-Based Training*. Dog Aggression Specialist Publication.
- Wright, R. (2024). Teaching Your Dog the Whistle. Dog Aggression Specialist Publication.
- Wright, R. (2024). Fifty Hand Signals for Dog Training. Dog Aggression Specialist Publication.