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## 問題用紙

| 受験番号 | 氏名 |  |
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問題 下記の英文はある論文を要約したものです。全文を和訳し、別紙解答用紙に記入しなさい。

- 1. <u>Behavioral and physiological</u><sup>1)</sup> synchrony <u>facilitate</u><sup>2)</sup> communication between human individuals through the experience of shared emotional states.
- 2. Synchrony ability at the behavioral and physiological level appears fundamental for forming <u>attachment bonds</u><sup>3)</sup> in the mother-<u>infant</u><sup>4)</sup> interaction and for a human infant's normal social development.
- 3. The co-evolution<sup>5)</sup> of dogs and humans has resulted in close cooperation and mutual attachment bonds between the two species.
- 4. In particular, dogs exhibit attachment behavior towards their owners, and the attachment bond is physiologically regulated by the oxytocin loop<sup>6)</sup> between the dog and their owner.
- 5. The synchrony of the autonomic nervous system (ANS) within dog-owner dyads<sup>7)</sup> remains relatively unexplored.
- 6. The ANS regulates <u>involuntary</u><sup>8)</sup> bodily functions through two branches, namely the sympathetic nervous system and the parasympathetic nervous system.
- 7. The ANS synchronization phenomenon has been observed in attachment relationships, including parent-infant pairing.
- 8. <u>Heart rate variability (HRV)</u><sup>9)</sup>, one method for assessing ANS activity, reflects the influence of various physiological and psychological factors, such as physical activity and emotions.
- 9. The <u>positive correlations</u><sup>10)</sup> between dogs-owner HRV on freely moving indicate synchrony of ANS activity between the two species.
- 10. Thus, the physiology and behavior of dogs and their owners were <u>co-modulated</u><sup>11)</sup>, demonstrating physiological and emotional connections comparable to those found in attachment bonds between humans.

## 注釈

1) behavioral and physiological : (動物の) 行動と生理(的現象)

2) facilitate: 促進する/容易にする

3) attachment bond(s): 愛着関係 (情緒的なつながり/愛着の絆)

4) infant: 乳児

5) co-evolution:共進化/共役進化(生物間の相互に生じる進化)

6) oxytocin loop: オキシトシンループ (犬と飼い主が見つめ合うとオキシトシンが分泌される現象)

7) dyad(s): ペア/対

8) involuntary:不随意

9) heart rate variability (HRV): 心拍変動(心拍変化から自律神経の均衡状態を分析する手法)

10) positive correlation:正の相関(2つの変数の一方が増加するとき他も増加する関係があること)

11) co-modulate:共調整する/共変調する

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