

Can Illustration Help us Understand our Cats Better?

Ali nam ilustracija lahko pomaga bolje razumeti naše mačke?

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Recent feline behavioral research, spearheaded by Scott and Florkiewicz (1), has made groundbreaking strides in decoding the complexity of cat communication. The study meticulously cataloged 276 facial expressions, each intricately linked to a broad spectrum of the cats' emotional states and communicative intents. This extensive array of expressions, which includes a "play face" akin to those observed in other species, signifies a depth of social interaction previously unacknowledged in domestic cats.

Florkiewicz also employs scientific illustration as an invaluable tool, enhancing the granularity of behavioral analysis (2). Detailed illustrations highlight the subtleties of cats' expressive range, previously obscured by less nuanced observation methods. Finka et al. (3) have demonstrated how such visual articulation can deepen our comprehension of feline social behaviors, transcending the constraints of traditional observational techniques. This innovative study categorizes and correlates expressions with fundamental emotional-motivational systems (4). It distinguishes between affiliative behaviors—indicative of positive, engaging interactions like play—and non-affiliative behaviors, which encompass a spectrum of negative or protective states from anxiety to aggression. The study extends to caregiving and reproductive behaviors, further delineating the emotional complexity of these animals.

Scott and Florkiewicz (1) also probe the broader implications of their findings for feline welfare. They argue that a deeper understanding of feline expressions can significantly

Nedavne raziskave mačjega vedenja, ki sta jih vodili Scott in Florkiewicz (1), so naredile prebojne korake v dešifriranju kompleksnosti komunikacije mačk. Študija je natančno katalogizirala 276 izrazov obraza, vsak tesno povezan s širokim spektrom čustvenih stanj in komunikacijskih namenov mačk. Ta obsežen nabor izrazov, ki vključuje »igralni obraz«, podoben tistim, opaženim pri drugih vrstah, označuje globino socialne interakcije, ki prej ni bila priznana pri domačih mačkah.

Florkiewicz prav tako uporablja znanstveno ilustracijo kot neprecenljivo orodje, ki izboljšuje natančnost analize vedenja (2). Podrobne ilustracije poudarjajo subtilnosti izraznega obsega mačk, prej zakrite z manj niansiranimi metodami opazovanja. Finka in sod. (3) so pokazali, kako lahko takšna vizualna artikulacija poglobi naše razumevanje socialnih vedenj mačk, presegajoč omejitve tradicionalnih tehnik opazovanja. Ta inovativna študija kategorizira in korelira izraze z osnovnimi čustveno-motivacijskimi sistemi (4). Ločuje med afiliativnimi vedenji – ki nakazujejo na pozitivne, vključujoče interakcije, kot je igra – in neafiliativnimi vedenji, ki obsegajo spekter negativnih ali zaščitnih stanj, od anksioznosti do agresije. Študija se razteza na vedenje oskrbe in reproduktivno vedenje, kar dodatno opredeljuje čustveno kompleksnost teh živali.

Scott in Florkiewicz (1) prav tako raziskujeta širše posledice svojih ugotovitev za dobrobit mačk. Trdita, da lahko globlje razumevanje mačjih izrazov znatno izboljša kakovost interakcij med ljudmi in mačkami in s tem dobrobit domačih

improve the quality of human-cat interactions, thereby enhancing the welfare of domestic cats. For instance, recognizing expressions of pain or distress allows for more empathetic and effective caregiving. Furthermore, the study illuminates the potential impact of selective breeding on the evolution of feline expressiveness, suggesting that human preferences might inadvertently alter the communicative capabilities of future feline populations. In our ongoing research (5) and collaboration in the project European Researchers' Night, Humanities Rock, Human(e), animal 22/23 (Evropska noč raziskovalcev, Humanistika, to si ti! Človek, žival), we integrate observational rigor with scientific illustration (Figure 1) to delve into feline body language, including facial expressions and cephalic types (brachycephalic, dolichocephalic, mesocephalic). This approach, enriched by considering cats' living styles, aids in understanding the expression of natural feline behaviors, enhancing our insight into their emotional states and physical variations.

mačk. Na primer, prepoznavanje izrazov bolečine ali stiske omogoča bolj empatično in učinkovito oskrbo. Poleg tega študija osvetljuje morebitni vpliv selektivne vzreje na evolucijo mačjega izraznega jezika, kar nakazuje, da bi lahko človeške preference nenamerno spremenile komunikacijske sposobnosti prihodnjih populacij mačk.

V našem tekočem raziskovanju (5) in sodelovanju v projektu Evropska noč raziskovalcev, Humanistika, to si ti! Človek, žival 22/23, tudi združujemo temeljito opazovanja vedenja mačk z znanstveno ilustracijo (Slika 1), da bi poglobljeno raziskali njihovo telesno govorico, vključno z izrazi obraza in tipi glave (brahicefalični, dolichocefalični, in mezocefalični). Ta pristop, dopolnjen z upoštevanjem in poznavanjem življenjskih slogov mačk, pomaga pri razumevanju naravnega izražanja mačjih vedenj in izboljšuje naš vpogled v njihova čustvena stanja in fizične različnosti. Tako naše raziskave kot tudi raziskave Florkiewicza (2) so pokazale pomen



Figure 1: Analysis of facial movement for better understanding (P. Kovačič)

Our findings and Florkiewicz's (2) research underscores the value of blending behavioral science with artistic representation, advancing our knowledge of cat welfare and fostering a deeper human-cat connection.

združevanja vedenjske znanosti z umetniško reprezentacijo, kar napreduje naše znanje o dobrem počutju mačk in spodbuja globljo povezavo med človekom in mačko.

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