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## “A Dog Handler Is not a Specialized VAB Mechanic!” To Be a Human–Dog Team Conducting Olfactory Search in the French Military

«Инструктор по дрессировке собак –  
это не специализированный механик VAB  
(бронированной машины переднего края)!»

Быть в тандеме человек–собака,  
проводящим поиск по различным  
запаховым следам во французской армии

### Абстракт

Цель исследований – изучить характер отношений и взаимодействий во французских военных кинологических расчетах (тандемах человек–собака), проводящих поиск по

“A Dog Handler Is Not a Specialized VAB  
Mechanic!” To Be a Human–Dog Team  
Conducting Olfactory Search  
in the French Military

### Abstract

This study aims to investigate the relationships and interactions within French military human–canine teams conducting olfactory searches. A thematic content analysis has been carried out based on 16 interviews with handlers from the French Army. Three themes are presented,

различным запаховым следам. Тематический анализ содержания был проведен на основе 16 интервью с кинологами французской армии. Внимание было сосредоточено на трех темах: 1) работа с собаками как отдельная специальность; 2) миссия как реальная среда для кинологического расчета; 3) дрессировка собак. Отношения и взаимодействия между людьми и собаками в кинологических расчетах частично определяются контекстом миссии, военным учреждением, а также особенностями участников диады. Неблагоприятные условия, в которых приходится действовать, риски и угроза жизни являются важными факторами, обуславливающими подготовку и эффективное применение кинологических расчетов, а также отношения между человеком и собакой.

**Ключевые слова:** служебные собаки, поиск по запаховым следам, отношения человек–собака, французская армия, качественный метод

focusing on 1) canine handler, a distinct specialty; 2) missions, as the real-world for the military canine team; 3) training dogs. The relationships and interactions between humans and dogs within canine teams are partly shaped by the context of the missions, by the military institution, as well as by the particularities of dyad members. Degraded environments, risks, and death are essential determinants in the preparation and implementation of canine teams, as well as in the relationships established within the partnership.

**Keywords:** working dogs, olfactory searches, human–canine relationships, French Army, qualitative method

## Introduction

The army's missions are to defend the national territory and its population, both on French grounds and abroad. Abroad, its role consists of ensuring the protection of French citizens while safeguarding the interests of France and its international partners.

The French military institution has a history spanning over six centuries. It has been built around battles, wars, and great heroic figures. The fabric of its history is woven through wartime events and the men involved. This historical heritage is transmitted to young soldiers upon their arrival and maintained throughout their careers, contributing to the formation and strengthening of the military identity. This is characterized by the transmission of knowledge, skills, virtues, and duties. Nicolas Diat<sup>1</sup> describes this process of identity shaping as follows: “Traditions forge the identity of soldiers and provide moral strength. A soldier can say without hesitation that within the folds of his regiment's flags lies the soul of those who came before him.” The possibility of dying and taking lives characterizes the soldier's pro-

<sup>1</sup> Nicolas Diat, *Les écrivains sous les drapeaux* (Paris: Fayard, 2022).

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fession.<sup>2</sup> Death is a possibility and a consequence. Above all, it is something that can be given. Because this profession confronts individuals with death and the exercise of force, a soldier’s code of honor exists “to establish a moral and behavioral framework for soldiers of the Army.” These commandments aim to regulate the behaviors and mindsets of soldiers in missions and in their daily lives. It applies to everyone, regardless of hierarchical status. The Code of Honor lays the foundation for commitment to the nation and recalls the seven virtues of the soldier (loyalty, duty, respect, selfless service, honor, integrity, courage). Therefore, the military institution, by shaping its men, prescribes the behaviors and mindsets applied to interactions and relationships with military dogs.

## The work of human–dog teams in the French Army

In the French Army, dogs were primarily mascots, serving as companions with whom soldiers formed emotional and social bonds. During World War I (1915), the use of dogs for operational roles was authorized by the government.<sup>3</sup> Their use by the military became more discreet in the decades that followed. It was during the Indochina War (1946–1954) and the Algerian War (1954–1962) that their significant utilization reemerged.<sup>4</sup> In 1977, the Army laid the foundation for what would eventually become the 132nd Cynotechnical Infantry Regiment in 2019. It remains the only regiment solely dedicated to K9 support. However, K9 teams are also present in the Infantry, the Air and Space Force, and the Navy.

The training paths to become a canine (K9) handler, as well as the process of team formation, vary depending on the branch of the military. Dogs are recruited from various sources: breeders, working dog trainers, shelters, and families surrendering them. For some of the dogs who come from civilian backgrounds, their fate would have been euthanasia (from shelters or families). Partnerships are established with shelters. When dogs join the institution, they have a military status and possess

<sup>2</sup> Michel Goya, *Sous le feu: la mort comme hypothèse de travail* (Paris: Tallandier, 2019); Française Armée, *Commandement et fraternité* (Economica, 2016); Monique Castillo, “Existe-t-il des valeurs propres aux militaires?” *Inflexions*, vol. 30, no. 3 (2015): 151–158, <https://doi.org/10.3917/infle.030.0151>.

<sup>3</sup> Gaston de Wael, *Le chien auxiliaire du combattant – dressage du chien dans toutes ses spécialités* (Le Coudray: Editions Livre d’histoire, 1925); Lionel Mathieu and Benoît Habermusch, *Chiens et Gendarmes: une histoire partagée* (Ajaccio: SPE-Barthélémy, 2021).

<sup>4</sup> Christian Marchisio, *Les cynotechniciens de la Royale* (Toulon: Editions Méditerranée, 2023); Mathieu Lionel and Benoît Habermusch, *Chiens et Gendarmes: une histoire partagée* (Paris: SPE-Barthélémy, 2021).

an identification number. The two K9 specialties implemented are securing military facilities, searching for and neutralizing individuals (patrol dogs), and detecting non-biological materials (explosives, ammunition, narcotics, fuels) with the role of supporting the search and detection. Canine teams are deployed as units on national territory and abroad, in contexts with varying degrees of risk and intensity, as well as in environments that may be degraded to varying degrees.

Scientific literature on working dogs in Defense forces focuses on performance, selection, necessary qualities, and training modalities.<sup>5</sup> In terms of relational aspects, the effectiveness and well-being of dogs<sup>6</sup> and the effects of handler stress<sup>7</sup> have been investigated. Other studies have interrogated handlers about their expectations regarding explosive detection dogs<sup>8</sup> and about beliefs and representations

<sup>5</sup> David L. Sinn, Samuel D. Gosling, and Stewart Hilliard, "Personality and Performance in Military Working Dogs: Reliability and Predictive Validity of Behavioral Tests," *Applied Animal Behaviour Science*, vol. 127, no. 1–2 (2010): 51–65, <https://doi.org/10.1016/j.applanim.2010.08.007>; Lucia Lazarowski and David C. Dorman, "Explosives Detection by Military Working Dogs: Olfactory Generalization from Components to Mixtures," *Applied Animal Behaviour Science*, vol. 151 (2014): 84–93, <https://doi.org/10.1016/j.applanim.2013.11.010>; Lucia Lazarowski, Lowell Waggoner, Sarah Krichbaum, Melissa Singletary, Pam Haney, Bart Rogers, and Craig Angle, "Selecting Dogs for Explosives Detection: Behavioral Characteristics," *Frontiers in Veterinary Science*, vol. 7 (2020), <https://www.frontiersin.org/articles/10.3389/fvets.2020.00597>; Barbara L. Sherman, Margaret E. Gruen, Beth C. Case, Melanie L. Foster, Richard E. Fish, Lucia Lazarowski, Venita DePuy, and David C. Dorman, "A Test for the Evaluation of Emotional Reactivity in Labrador Retrievers Used for Explosives Detection," *Journal of Veterinary Behavior*, vol. 10, no. 2 (2015): 94–102, <https://doi.org/10.1016/j.jveb.2014.12.007>; Pernilla Foyer, Anna-Maria Svedberg, Emma Nilsson, Erik Wilsson, Åshild Faresjö, and Per Jensen, "Behavior and Cortisol Responses of Dogs Evaluated in a Standardized Temperament Test for Military Working Dogs," *Journal of Veterinary Behavior*, vol. 11 (2016): 7–12, <https://doi.org/10.1016/j.jveb.2015.09.006>; Camille A. Troisi, Daniel S. Mills, Anna Wilkinson, and Helen E. Zulch, "Behavioral and Cognitive Factors that Affect the Success of Scent Detection Dogs," *Comparative Cognition & Behavior Reviews*, vol. 14 (2019): 51–76, <https://doi.org/10.3819/CCBR.2019.140007>; Emily E. Bray, Cynthia M. Otto, Monique A. R. Udell, Nathaniel J. Hall, Angie M. Johnston, and Evan L. MacLean, "Enhancing the Selection and Performance of Working Dogs," *Frontiers in Veterinary Science*, vol. 8 (2021), <https://www.frontiersin.org/articles/10.3389/fvets.2021.644431>.

<sup>6</sup> Diane Lefebvre, Claire Diederich, Madeleine Delcourt, and Jean-Marie Giffroy, "The Quality of the Relation between Handler and Military Dogs Influences Efficiency and Welfare of Dogs," *Applied Animal Behaviour Science*, vol. 104, no. 1 (2007): 49–60, <https://doi.org/10.1016/j.applanim.2006.05.004>.

<sup>7</sup> Salman Zubedat, Shlomit Aga-Mizrachi, Adi Cymerblit-Sabba, Jonathan Shwartz, Joseph Fiko Leon, Shlomo Rozen, Itay Varkovitzky, Yuval Eshed, Dan Grinstein, and Avi Avital, "Human–Animal Interface: The Effects of Handler's Stress on the Performance of Canines in an Explosive Detection Task," *Applied Animal Behaviour Science*, vol. 158 (2014): 69–75, <https://doi.org/10.1016/j.applanim.2014.05.004>.

<sup>8</sup> Brian D. Farr, Cynthia M. Otto, and Julia E. Szymczak, "Expert Perspectives on the Performance of Explosive Detection Canines: Operational Requirements," *Animals*, vol. 11, no. 7 (2021): 1978, <https://doi.org/10.3390/ani11071978>.

impacting canine well-being.<sup>9</sup> These works significantly contribute to understanding how to work with dogs in military contexts. To further enrich scientific research on this subject, this study aims to examine the relationships and interactions within French military K9 teams conducting olfactory searches.

## Method

### Participants

Qualitative data were collected through interviews with handlers from units within the French Army, including the Infantry and the Air and Space Force ( $N = 16$ ). It was indicated that the study aimed to gather their daily experiences and work with their dogs (see Appendix 1). The interviews were conducted in person ( $N = 15$ ) and over the phone ( $N = 1$ ). Sociodemographic and professional information was obtained through a form filled out by each participant (gender, age, specialties, number of years of experience with dogs in the institution). The characteristics are presented in Table 1. The reported specialties correspond to the handlers' specialties at the time of the interviews. Some handlers may have previously had a different specialization. A coding system was devised to cite the participants (specialty and experience with dogs in the institution).

- Experience: less than 18 months [-18 months]; less than 5 years [-5 years]; from 10 years to over 20 years [+10 years];
- Roles: aid in explosive detection [ex]; aid in human detection and neutralization [Hneut]; dual capacity: [dual];
- The names of the dogs and locations were modified to maintain the anonymity of the participants.

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<sup>9</sup> Ioannis Chaniotakis, Evangelos Diamantakos, Georgios Mantziaras, Andreas Manousoudakis, and Nikolaos Kostomitsopoulos, “Improving Military Dogs’ Welfare: Is There a Place for Handlers’ Beliefs and Perceptions?,” *Society & Animals*, vol. 26, no. 4 (2018): 388–401, <https://doi.org/10.1163/15685306-12341535>.

Table 1

**Characteristics of Dog Handlers (N = 16)**

Characteristic	N (%)
Gender	
men	9 (56.2)
women	7 (43.7)
Age distribution	
under 25 years old	9 (56.2)
25–35 years old	5 (31.2)
36–45 years old	2 (12.5)
Role	
explosive device	3 (18.75)
human trailing and tracking	11 (68.75)
dual-purpose (explosive detection and human tracking)	2 (12.5)
Experience with dogs in the institution	
less than 18 months	6 (37.5)
less than 5 years	5 (31.2)
5 to 9 years	0 (0)
10 to 14 years	2 (12.5)
15 to 20 years	1 (6.2)
more than 20 years	2 (12.5)

## Data collection

After initial contact with the K9 commands of the French armed forces, presentation meetings were organized within the units. The handlers participated in the interviews based on their availability, interest, and consent. Data were collected through individual semi-structured interviews. These interviews took place within the units between September 2020 and July 2021. The total volume of the corpus of 16 interviews is 18 hours and 43 minutes. The average duration of an interview is one hour and nine minutes.

An interview guide was developed around the following themes: the handler's profession, missions and training, the distribution of roles between man and dog during olfactory searches, dog profiles, their emotions and stress, and their fluidity within the team (see Appendix 1). The interview guide provided a framework while maintaining the necessary flexibility for participant expression. It was pre-tested with five military K9 handlers in September 2020. The interviews began with the following opening statement: "I would like you to talk to me about your work with

your dog.” An open questioning style was adopted, where questions were only asked if participants did not spontaneously address the research themes. The interviews were recorded and transcribed with the participants’ consent. They were conducted and recorded by the first author.

## Data analysis

The interviews were transcribed manually and with the assistance of NVivo 12 Transcription software. A thematic analysis was conducted on the entire corpus.<sup>10</sup> The approach involved comparing individual experiences of different participants and identifying significant units of meaning for the participants.<sup>11</sup> The procedure encompassed the identification of themes *via* thorough readings and the examination of correlations and connections within all the data gathered from the participants, aimed at pinpointing content-related codes. Using a qualitative approach, the data collected was analysed both vertically and horizontally. This approach made it possible to initially compare individual participant experiences (vertical analysis) and subsequently compare documented experiences across different participants (horizontal analysis). Content analysis was conducted with the assistance of NVivo 12 software (NVivo qualitative data analysis Software; QSR International Pty Ltd. Version 12). In the analysis of the interviews, the qualitative approach focused on data collection aimed at comprehensively gathering and understanding the experiences and meanings invested by the professionals when discussing their profession and their interactions with their dogs.<sup>12</sup> The coding and analysis were conducted by the first author.

## Results

### Sample

#### Description of data and qualitative analysis

In this section (Table 2), a portion of the themes and sub-themes that emerged from the analysis are presented: 1) K9 handler, a distinct specialty in the Armed

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<sup>10</sup> Laurence Bardin, *L'analyse de contenu* (Paris: Presses Universitaires de France, 2005).

<sup>11</sup> Bardin, *L'analyse de contenu*.

<sup>12</sup> Andrew J. B. Fugard and Henry W. W. Potts, “Supporting Thinking on Sample Sizes for Thematic Analyses: A Quantitative Tool,” *International Journal of Social Research Methodology*, vol. 18, no. 6 (2015): 669–684, <https://doi.org/10.1080/13645579.2015.1005453>.

Forces; 2) missions, as the real-world for the military K9 team; 3) training dogs in the Armed Forces. The complete set of themes and sub-themes resulting from the thematic analysis is presented in Appendix 2.

Table 2

**Presentation of the themes and sub-themes featured in this article**

Themes	Sub-themes	Sub-themes	Sub-themes
K9 handler, a distinct specialty in the Armed Forces	Passion and commitment	To excel, be exemplary, and responsible	
Missions, as the real-world for the military K9 team	Monotony, intense experiences, and evolutions	Sense of mission: the risk of death, for both humans and dogs	Characteristics of successful mission
Training dogs in the Armed Forces	Train like you fight	Rewarding to motivate and facilitate learning	Characteristics of successful training

Theme: K9 handler, a distinct specialty in the Armed Forces

Sub-theme: Passion and commitment

When experienced handlers talk about their profession, they emphasize the necessary commitment and passion for dogs. According to several of them, this profession implies that the dog becomes the handler's main concern in the performance of their duties. However, these concerns also spill over into their private lives. Two handlers compared their profession and its demands to those of soldiers with other specialties. They consider that this aspect also distinguishes them from other soldiers who do not have the same degree of daily involvement. The handlers highlight the care and attention required by the dogs:

I'm going to do an exercise, it didn't go well [...] all evening I'm going to think about it. Even if I'm taking care of my kids, even if I'm spending an evening with my wife. ENT-23/+10 years-ex

It's the passion of the dog, without wanting to belittle, but the one who is a specialized VAB mechanic, if the VAB breaks down, [...] he'll open the user manual and it'll be written, on such a line you have to fix it like this. The dog, it's different. ENT-20/-5 years-Hneut

The instructors, as experienced handlers, train the novices. They say they insist on these notions. They complain that the young handlers do not invest more in their animal, in their relationship with it, but also in their profession. Several instructors mention their saturation and disappointment regarding the attitudes and behaviors



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of the novices. To cope with this, they talk about it together and help one another. They motivate one another to remain mobilized and involved in the training and formation of the young teams:

When I started, if someone told me, ‘You screwed up today, tomorrow you won’t be able to work with your dog,’ it was a real punishment! [...] if I say that to my juniors today, they’re happy ‘Oh, that’s cool!’ That’s what’s unfortunate. ENT-15/+10 years-Hneut

I can do a lot of things with their dog, I can teach them a lot of things. But the bond, I can’t do that, it’s up to them. [...] I see teams, they’re two strangers. There’s no relationship. ENT-23/+10 years-ex

The instructor has a different perspective. According to him, the division would not reflect a generational difference. He considers that experienced handlers also do not fully invest themselves in the work. The passion might be there, but the handlers, whether novice or experienced, fail to fulfill their role of exemplarity, involvement, and responsibility towards the dog. He says: “If you ask something to your dog, you should be able to do it yourself too” ENT-10/+10 years-dual.

On their side, several young handlers say they chose this profession out of passion and interest in working with dogs:

It’s a pleasure to be in contact with my dog, to see him thriving, to be happy, to be beautiful, to be in good health, etc. [...] In the morning, I don’t wake up thinking: I’m going to work. I think: it’s cool, I’m going to be with my dog. We’re going to do things I would never do outside of here. For me, it’s a beautiful profession. ENT-22/-5 years-ex

Some novices have expressed their enthusiasm for learning in the field of canine training. The importance of the role of transmission by the experienced handlers is mentioned several times by the young professionals:

I want to learn as much as possible. I can ask, gather information here and there, and right now, I’m on cloud nine. ENT-22/-5 years-ex

Several young handlers say they go to see their dogs at the kennel during their weekends or stay a little longer in the evening with them. They go there to walk them, play, or spend time with them. Only one indicates coming to train the dog. The others prefer to offer relaxation and spend time with their dogs just for pleasure without any work objectives:

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At the end of the day, I stay a bit with him while everyone else has left. [...] It's something I really enjoy because it remains simple. It's an exchange with my dog, but in the end, I benefit from it, and so does he. ENT-11/-18 months-Hneut

Several experienced handlers have also recounted the moments they spend with their dog outside of work hours: by coming in early every morning, in the evening, or during their time off.

The novices have all expressed their desire to go soon on OPEX (Operational Deployment) to get closer to their dogs, spend more time with them, and to discover other aspects of them:

I want to go on OPEX. For the dog, he'll see something else. Even for me. [...] Getting out of here, seeing the world, working with other people. ENT-18/-18 months-Hneut

The stories they have heard from the experienced handlers feed into their desire to leave as soon as possible to experience such moments. Generational differences emerge in the discourse, particularly from the experienced handlers, who highlight the passion and commitment required by this profession. They sometimes express negative judgment and disappointment towards the low involvement of novices with their dogs and in their work. Some generalization occurs when several experienced professionals talk about the "young ones."

Sub-theme: To excel, be exemplary, and responsible

Beyond passion, the experienced handlers say that this profession requires "sweat" and not settling into habits. They frequently use the expression "stepping out of one's comfort zone" to characterize a mindset and behaviors. Pushing boundaries and avoiding settling into comfortable habits appear in the verbatim of both the young and experienced handlers. This mindset also applies to the dogs. Behaviors in dogs showing motivation, concentration, and commitment are valued. This handler illustrates this mindset by indicating that handlers who do not step out of their habits will not produce a dog with a high level of technicality and utilizing its full potential:

There are people, they're in their comfort zone. They'll never push the dog. They'll stick to basics because they themselves don't make the effort. ENT-10/+10 years-dual

The sense of responsibility and exemplarity is invoked at three levels. The first level of responsibility targets the military group and comrades. They describe their

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interventions aimed at securing routes, protecting bases, sensitive buildings, or personalities. Their role in defense and protection is particularly evident among the handlers working in explosive device detection:

Let's not fool ourselves, there's still the fear of either doing something wrong or missing out on something. ENT-23/+10 years-ex

The second level of responsibility concerns the community of K9 teams, which they represent by carrying out a K9 mission. Finally, responsibility is also expressed towards their dog: through care, attention, the relationship woven daily, and training. The responsibility for the dog's mistakes or inaccuracies is assumed by the handler who is also the trainer. It is the handler who has reflected, planned, organized, and conducted the dog's preparation:

If the dog doesn't do it, it means I missed something. ENT-10/+10 years-dual

The inclination to test one's own abilities and those of their dog, as well as the complexity of making decisions in action while assuming various responsibilities, are expressed in the words of this handler:

We had a whole forest to cover. I arrive, I see Hercule, my dog, not being well. We had 300 meters of forest left. If I stop there, if I realize I'm stopping there, they'll say, "he's messing around. He's had enough and he's going back." I tell myself I'm going to push through. I pushed through. I didn't feel like abandoning them, and abandoning my mission so close to the end. I continued and almost lost Hercule because he started to have heat stroke. I should have stopped when I thought about stopping. [...] between stopping for my dog and not showing others that I'm a liability, that I can't finish my mission. I almost failed, it was close. Luckily, afterwards, [...] we stayed in the same place for three hours. I put him under the VAB in the wind. He recovered, but I shouldn't have. ENT-23/+10 years-ex

Responsibility involves the handler questioning themselves before questioning the abilities of the dog. This aspect has been cited by several experienced handlers:

What the dog produces is a result of your effort, your sweat, how you've thought about it, how you're going to implement it... why the dog does this, what method I'm going to use, how I'm going to use it... many people stop at "it's not going well, the dog..." There's far too much ease in saying the dog isn't doing well. We tend to blame the dog for it. ENT-10/+10 years-dual

Experienced handlers also think that the job requires vigilance and adaptation to different environments. For them, it is about preparing themselves and their dog to face the unexpected and the variety:

I'm going to push a bit further to see the capabilities of my dog, and what I'm capable of doing with my dogs. ENT-25/+10 years-ex

Exemplarity towards the dog, involvement, responsibility, and constant self-questioning are presented as central and specific elements of this passion according to experienced handlers. Novices, on the other hand, express their enthusiasm for this profession, their interest in their dogs, and their desire to learn.

Theme: Missions, as the real-world for the military K9 team

Sub-theme: Monotony, intense experiences, and evolutions

The handlers who have been on both domestic and foreign missions mainly illustrate their experiences with narratives from Operational Deployments. Stories which are recounted less frequently revolve on French territory. The storyline of these experiences revolves around their dogs, encounters with danger, risks, and difficulties, but also successes experienced by the team. These are significant encounters that have been faced, overcome, or provided opportunities for learning.

We were at the top of our game, I had no doubt about his search. I had no doubt about his behavior, it's really exhilarating to say to yourself: 'Let's go guys! You put on your helmet, your bulletproof vest, we're going to war.' ENT-22/-5 years-ex

Some also speak of the monotony of the work, the repetition of certain tasks, regardless of the technicality. Repetition, also called drill, aims to create automatism, reflexes. Drill is a practice present in the military. Even if drill is necessary, some K9 handlers consider that it negatively impacts the dogs. The weariness resulting from searches for materials or people without finding the target odor contrasts with the training sessions during which the dogs search by identifying and indicating materials or an "enemy." Fatigue also occurs when tasks are repeated in the same context. It affects the motivation of their dogs, according to some handlers, as well as the motivation of some handlers. One of them describes their daily tasks:

Every day, it's the same thing, the same vehicle, the same check, the same environment. Nothing changes. There's no novelty. After two weeks, when the dog gets in the vehicle and arrives at the entrance, he knows very well what he's going to do. ENT-22/-5 years-ex

There is a willingness to face the monotony and address it. Some professionals indicate that they organize situations with the help of comrades during which a target odor is hidden or an “enemy” enters the compound. These scenarios provide the dogs with the opportunity to conduct an olfactory search resulting in a high-intensity reward. This also helps maintain motivation, as well as a level of performance and vigilance. The comrades that are present and involved also become witnesses of the capabilities of the dog, of the team. Several handlers have recounted the admiration provoked by these situations among their comrades.

The experienced handlers relate the changes observed in their dogs, the capabilities they have deployed during their operational implementations:

We went to Africa, Bob [the dog], he turned out to be a machine. ENT-24/+10 years-Hneut

According to the experienced handlers, the operational context also allows to test canine learnings, even if they were previously validated before departure. Some note that new learning could facilitate their intervention but also have other benefits for the group. One example given is using a laser to target a surface. One handler reports on the difficulties he has experienced during encounters with the enemy. The dog assigned to him was previously trained in a way that revealed limitations in this mission context:

They were trained to gunshots. Gunshot equals biting. [...] When the guy is shooting, the dog gets annoyed, and boom in the arm [...] Especially regarding shooting safety. If it's to start bursting gunshots towards everyone because the dog is eating you up, thanks! [...] for 6 months, every time there was a gunshot, he wanted to break everyone down. It's long. ENT-24/+10 years-Hneut

The K9 handlers who have been on OPEX missions have described a variety of moments spent with their K9 partners. The daily intimacy creates deep relationships and strengthens bonds. “Suffering and enduring together” is also considered a possibility for bonding for some. The dog, as a teammate, is also recognized for what he brings to the group in terms of emotional support within the Forward Operating Bases. One handler recounts the bonds forged by his dog with other comrades. He also mentions recognition by his leader of the dog's qualities and social role within the group. The distance from the family and loved ones also fosters an emotional closeness with the dog:

On OPEX, inevitably, the bond is formed no matter what happens. [...] Thanks to living daily with your dog, really all the time, like 24/7 [...] They're at the kennel,

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but we work at night, we work during the day, we wake up, the first thing we do: we go see the dog. ENT-23/+10 years-ex

Among the young handlers, the eagerness to leave is associated with the desire to experience operational situations and share intense experiences with their K9 partner.

The handlers mainly share stories of external operations, highlighting moments of danger, success, and a close bond with their dog, while some appreciate less monotonous aspects of the work. To overcome this, they maintain their dogs' and their own motivation by organizing varied training sessions with comrades where target odors are present.

Sub-theme: Sense of mission – the risk of death, for both humans and dogs

Novices and experienced K9 handlers spontaneously address exposure to risks and death. They talk about their own death, that of their comrades, and that of their dog, especially those specializing in explosive detection. Several experienced handlers, regardless of their specialty, also discuss the possibility of their dog dying in combat under enemy fire. All professionals connect this risk to the involvement and demanding preparation required for the dogs. Olfactory searches must also prevent handlers and other military personnel from dying. The K9 handlers indicate that if the death of their dog were to occur, it could also save comrades or the handler themselves. They mention it as a moment they do not want to experience but which could happen. This topic mainly emerges in the verbatim of the experienced handlers:

if tomorrow, something has to blow up. If something has to explode, I'd rather it be him who dies than me. [...] I'd be unhappy. ENT-25/+10 years-ex

Some participants recount situations where their lives were spared, where they were protected by their dog:

[In] an area we often frequented in Chad... It's where we did vehicle maintenance. It's a closed-off area. So I would release Riot [the dog] in this area every evening when we went on patrol [...]. I let him go, and there, he goes after a cat [...] I retrieve him. I let him go again, and then I see he wants to go back. I retrieve Riot [...] as we passed the corner of a building, there was a Chadian waiting for me with a machete and he swung it towards my head. My dog, who had gone ahead, grabbed his armed arm. He saved my life. Or if he didn't save my life, he prevented me from being disfigured. ENT-25/+10 years-ex

The feelings of gratitude and pride towards their K9 partners stand out in the narratives. Following these situations, the bonds within the team were strengthened, and trust reinforced.

#### Sub-theme: Characteristics of a successful mission

Three points characterize a successful mission for all participants: 1) achieving the assigned objective, regardless of the means and manner; 2) being useful to the group, for example, by saving time, saving lives, or “bringing something positive;” 3) related to the good and the beautiful, to a search for excellence (“beautiful search,” “working well,” “good handler’s work,” “the pleasure of a job well done”).

In detection, he discovered an individual who was hidden, waiting to detonate the group. There, I thought to myself, “It’s a success.” Maybe we saved the entire group. Maybe... Then my dog shows me that the training paid off. ENT-20/-5 years-Hneut

I did my part, I searched my vehicle. The dog comes out: “We’re done, it’s clear, you can go.” For me, the vehicle is clean. There’s no problem. And I did my job well. My dog listened to me. I’m happy we shared something [...] It’s the job well done. ENT-22/-5 years-ex

For several K9 handlers specializing in explosive detection, a successful mission is also defined by the absence of casualties after their intervention:

It’s a mission where I deploy my dog, I do my job, everything goes smoothly, and in the end, it still explodes. That’s a failure. People could die. Equipment could be destroyed. ENT-25/+10 years-ex

Several experienced handlers nuance the notion of success at any cost. They delineate the latitude and variety of means used to achieve the assigned goal. They consider that this should not result in irreparable damage to their dog. The continuity of its operational career must be preserved. Some explained that it is a responsible choice towards the dog and the military. One of them adds that he would bear the consequences on the group and on the mission.

When discussing missions, the handlers highlight the monotony of repetitive tasks impacting the motivation of the dogs, the variety of shared moments strengthening bonds, and the intensity of experiences. They emphasize the sense of mission, mentioning the risk of death and gratitude towards their dogs. The handlers define a successful mission by achieving the objective while preserving the life and operational career of their canine partner.

Theme: Training dogs in the Armed Forces

Sub-theme: Train like you fight

The operational objectives of the K9 teams, of the dogs, determine how training sessions are conceived and organized. The K9 handlers also add that training serves to maintain learned behaviors, refine them, and learn new behaviors necessary for operational needs. Generalizing learned behaviors to different contexts and habituating dogs to shooting situations are also among the training objectives cited by the professionals:

Adding difficulties that one could encounter on the D-day. At least, we won't be surprised on the D-day if it happens. ENT-21/-5 years-ex

Some Army handlers have discussed double-blind training organized during large-scale exercises with other regiments. They consider that this allows them to assess the dog's work and consider its intervention within a larger group, getting even closer to an operational situation. This proximity to an operational context is also reflected in the specific mindset of the handlers:

It's man-hunting. It's either me or the guy. It's like it's real. ENT-10/+10 years-dual

If everything is set up to get as close as possible to operational conditions, there is still a line that separates the mission from training. The mission remains the sole mirror of the level of the K9 team:

It's the pinnacle when you succeed at something in OPEX. Before OPEX, you can train, you can do evaluations, you can... We have operational checks, but it's not real life. We try to get as close as possible [...] That's when we say to ourselves: "This is good or I completely messed up." ENT-23/+10 years-ex

To ensure progress in learning, the K9 professionals emphasize the need to adapt training and interactions to each individual dog. This approach is described as characteristic of good trainers. Among other criteria influencing the acquisition of behaviors and facilitating their recall, repetition (drilling) is necessary to create automatism. Training also contributes to developing the ability to "read" and interpret canine behaviors. These abilities rely on careful observation of behaviors and attitude changes, especially during olfactory searches.

The importance of training in preparing for operational tasks is highlighted by all the handlers. They add that training also helps develop a better understanding of their own dog and dogs in general. This aspect is seen as essential for interpreting, reacting to, and adapting to dog behavior in a working environment.



“A Dog Handler Is not a Specialized VAB Mechanic!” To Be a Human–Dog Team...

Sub-theme: Rewarding to motivate and facilitate learning

Motivation and rewards are central to discussions when it comes to describing work with dogs (“they work for pleasure, they do the exercise to ultimately receive a stroke from their dad or their motivator object” ENT-18/-18 months-Hneut-M). The handlers, both experienced and novice, describe the variety of rewards used (petting, verbal praise, positive emotion expressed by the handler, food, bite work, objects, ball throws...) to reinforce desired behaviors. Each reward can be given on its own, but often several are given at the same time. Some handlers report relying on a variety of food types and objects. The choice is made based on the dog’s preferences and the activity. The dog’s enjoyment, positive emotions are frequently mentioned by the handlers, especially when it comes to scent searches and bite work:

If he performs such behavior, it will please me. And in return, he will enjoy because he will be rewarded. So it’s a win-win situation. It’s pleasure for both.  
ENT-13/-18 months-Hneut

The object given as a reward or used in the context of play holds a very strong value for dogs (“like a ball-crazy lover” ENT-12/-18 monts-Hneut). It sometimes becomes the source of relational difficulties within the team. Problematic situations arise when the handler gives the verbal cue “give” to the dog and he refuses to release the object. Several handlers, especially novices, describe the frustration and annoyance caused by this behavior. They describe various strategies to achieve their goal: “being more stubborn than the dog,” “being strict,” “having a second ball or another object,” “stepping back and calling the dog,” “moving away from the area while leaving the dog with the object and waiting,” “enticing with food,” etc. These attempts are rarely successful and there are many failures, according to some of the young handlers. They focus on retrieving the object and notice the dog’s refusal to give it back. For some, this reflects their dog’s intention “to test them”:

When he has the motivational object and I call him back, he advances, but stops just in front of me. It’s like he’s provoking me. It’s more provocation than... Well, I think. He comes up to me, looks at me, and starts to walk away like that.  
ENT-21/-5years-ex

In order to eliminate any difficulty in retrieving the object, the experienced handlers have directly and primarily trained their dogs to release the object from their mouth on command “drop it”:

Either we don't train the "drop it" command, or we teach him the "drop it" command. It's much simpler to have the "drop it" command. [...] it's much smoother. There's no confrontation between the two. ENT-22/-5 years-ex

The rewards and motivation are central aspects during training and work situations with dogs. It appears that rewards and practices can be varied. They aim to trigger positive emotions, pleasure to motivate the dog to produce the behavior again. The K9 handlers, both young and experienced, have described in detail their approach and what it provoked in their dog. They talk about the interest in the reward and its effect on the motivation for olfactory searches. Most handlers describe the intense emotions of pleasure felt by their dog in two work situations: in olfactory search and during bite work. For some dogs, only one of the two activities is of great interest.

#### Sub-theme: Characteristics of successful training

The success of a training session is described from three perspectives: a) the work of the dog, b) the occurrence during the training session, c) the one during the execution of a finalized behavior. A young handler notices the expression of his dog that appears during a successful training session: "Happy to have accomplished, being pleased to have succeeded in obtaining its reward" ENT-12/-18 months-Hneut.

The success of a training session relies on several criteria: the dog's willingness to respond to his handler's requests, his motivation and efforts, his ability to concentrate and focus on the task, and the fact that it is not excessive. It is also expected that the dog does not need his human during the execution of the expected behavior: "I want the dog to have learned something by the end of the session." ENT-10/+10 years-dual.

The success of training is also measured at the end: at the moment of behavior restitution learned in a mission. Success criteria are centered on the dogs. Few professionals mentioned their involvement in the success of training. The K9 handlers establish four criteria associated with failure in training. The first is the unmet objective in training, the expected behavior does not occur, or the task completion is incomplete. The second criterion is the injury of the dog. The third criterion is the "state of mind" of the dog ("nonchalantly or dragging its feet or if it were stressed [...] a dog that is rather distracted and not focused on you or what it should achieve" ENT-11/-18 mois-Hneut). It shows a lack of involvement (his dispersion thus his lack of concentration during the task) or behavior aimed at testing his master. The last criterion is the need to repeat the request, provide clues, or punish.

Training constitutes the prerequisite foundation for operational readiness, both technically and in terms of dealing with difficulties and exertion. Training also allows the handlers to understand their dog. The purpose of training is missions.

The professionals emphasize motivation and the use of various rewards to reinforce desired behaviors. The success of training is measured from the perspective of the dog, the handler, and the behavior restitution in operations, emphasizing knowledge and continuous improvement.

## Discussion

The objective of this study was to examine the relationships and interactions within French military K9 teams conducting olfactory research. All themes and sub-themes that emerged during the analysis are visible in Appendix 2. Three themes are addressed in this writing: 1) K9 handler, a distinct specialty in the Armed Forces; 2) Missions, as the real-world for the military K9 team; 3) Training dogs in the Armed Forces.

One of the specificities of the military profession is characterized by the possibility of dealing with death, and being killed.<sup>13</sup> Death is mentioned repeatedly by all the handlers. The possibility of its occurrence concerns the handlers, comrades, and the dogs. According to the handlers, the dogs are not sacrificed or sent to death in place of humans; this is not the purpose of their presence in military regiments. They are considered partners and close companions with whom they collaborate. K9 handlers mention the possible death of their dogs, because operational contexts expose them to mortality. They add that if it were to occur, it could potentially preserve their lives or those of comrades. Men are portrayed as fathers, brothers, sons, friends, embedded in a social network, which would also be affected by this death. The shadow of a possible death motivates involvement in preparation and contributes to thoughtful implementation. If it were to occur, it would categorize the dog's death as a combat death, potentially saving his handler or comrades. Whenever death is mentioned, it is associated with sadness and an unwanted event. What is described reflects the internal tensions associated with the potential loss of their partner, which at the same time would have significant meaning as lives would be saved.

The results highlight the virtues and duties inherent to the profession of the military dog handler in the French Army. These virtues and duties involve the handlers, guiding their behaviors based on the consequences for the mission, their fellow dog handlers, their superiors, as well as for their dog. They emphasize a sense of commitment and responsibility, as well as the duty of exemplary conduct,

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<sup>13</sup> Goya, “*Sous le feu: la mort comme hypothèse de travail*.”

self-transcendence. Responsibility lies first and foremost in achieving the mission's objective while adhering to an ethics of action.<sup>14</sup> Regarding the dog's action, it involves consideration of fatigue, heat, and the care to be provided<sup>15</sup> (Appendix 2). The participants particularly emphasize preparation, training tailored to future missions and operational conditions, and the repetition of exercises. Preserving the dog's effectiveness during implementation also receives their attention. In addition, the experienced handlers underline the importance of time, investment, and the quality of the relationship with the dogs.

The duty of exemplary conduct and commitment to the dog is evident among these professionals. It is characterized by an ability to exert as much effort, to commit, to test oneself as much as their dog. This dimension is integral to engagement in the military institution.<sup>16</sup> The results of this study highlight duties, consisting of prescribing behaviors towards the dogs in terms of relationship and training. The importance of virtues that shape the K9 handlers is also emphasized, encouraging them to seek excellence, to invest and surpass themselves, to show courage in the face of risks and death, to establish brotherly relations. These aspects are also reflected in the work and relationships with the dogs.

In external operations, some dogs act as genuine catalysts for social relations within the group, providing individual support while also bringing the group together, sometimes under strain. The social catalyst aspect<sup>17</sup> broadens the benefits that dogs bring by integrating them into an extended social network that goes beyond the team structure. Light and informal interactions, as well as those capable of surprising or eliciting laughter, also occur. Within the pairs, these moments contribute to transitioning from a trainer–trainee relationship to that of comrades-in-arms. The study highlights that professional interdependence, teamwork cooperation, emotional bonds, and trust can constitute a form of interspecific cohesion. Thus, the results of this study highlight the different relational modalities within K9 military teams: utilitarian, cooperative, affective, mutual support, trust, and a united front against risks and death. They hint at the richness and

<sup>14</sup> Monique Castillo, "Existe-t-il des valeurs propres aux militaires?," *Inflexions*, vol. 30, no. 3 (2015): 151–158, <https://doi.org/10.3917/infle.030.0151>.

<sup>15</sup> Stéphanie Michenaud, Dalila Bovet, Thierry Lamour, and Vanessa Laguette, "Working with Dogs in Olfactory Searches in the French Armed Forces and National Police Forces," *Qualitative Research in Psychology* (2024): 1–22, <https://doi.org/10.1080/14780887.2024.2338293>; Stéphanie Michenaud, Dalila Bovet, Thierry Lamour, and Vanessa Laguette, "Human–Dog Trust and Cohesion within French Military Canine Teams," *Military Psychology* (2024): 1–16, <https://doi.org/10.1080/08995605.2024.2390253>.

<sup>16</sup> Armée, "Commandement et fraternité."

<sup>17</sup> June McNicholas and Glyn M. Collis, "Dogs as Catalysts for Social Interactions: Robustness of the Effect," *British Journal of Psychology*, vol. 91, no. 1 (2000): 61–70, <https://doi.org/10.1348/000712600161673>.

complexity of this specific relationship that needs to be defined beyond the narrow framework of work. Formed by mutual adjustments and *micro-compromises*,<sup>18</sup> human–dog relationships in military contexts can be described as multifaceted and complex.

Among the K9 handlers, a form of intergroup comparison can be observed, particularly from experienced handlers and instructors towards novices. The professionals with experience emphasize differences in professional commitment by comparing current young handlers with what they were like. It is also a way to reinforce identity bonds, the similarities among the experienced handlers. It also serves to strengthen the status acquired through their experiences and canine expertise compared to the younger ones. On their part, several novices described their relational involvement, the time spent with their dog, and their willingness to learn. The young K9 handlers receive directives regarding relational investment. These directives seem challenging to implement as priority is given to training or daily tasks. To establish a more intimate connection with their dogs, the novice handlers visit the kennel on weekends or spend time with them at the end of the day. The novices primarily await external operations for the opportunity and necessary time to create intimate experiences and closeness.

Knowledge is primarily acquired through practical experience with the dogs. Behaviors learned by the dogs must be tested and validated first in training and then in operational settings. If these learned behaviors are not validated, they are modified and adjusted or abandoned, replaced. If the theater of operations requires it, new learning is implemented. The exercise of the profession is described as pragmatic. The field involves the evolution of canine techniques and learning, as well as equipment. The goal is to enhance the potential of the dogs and also to take care of them.

The success criteria for a mission and for training are distinct because the objectives assigned to these two situations are not identical. Training aims to prepare the operational readiness of the dog and the team. In operational settings, achieving the previously set objective is the success criterion for the mission. A failed mission contrasts drastically with success, because it can result in deaths, particularly for professionals searching for explosive devices. It is also characterized by the injury or the end of the operational career of the dog. Success in operational situations confirms the reliability of the canine team. It can reinforce the trust of other unit members and officers in the K9 team. Additionally, it can save time for the entire unit, facilitating in operational implementation. In scientific literature, the performance in olfactory searches is often evaluated based on speed of

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<sup>18</sup> Jean Foucart, “Pragmatisme et transaction. La perspective de John Dewey,” *Pensée plurielle*, vol. 33–34, no. 2–3 (2013): 73–84, <https://doi.org/10.3917/pp.033.0073>.

identification, accuracy, and effort.<sup>19</sup> Martin<sup>20</sup> and his colleagues emphasize that the speed of identification is not a performance criterion as the primary role of a detection dog is to identify the target odor. To our knowledge, no scientific publication refers to the evaluation of risks for dogs and handlers when characterizing criteria for the effectiveness and success of an olfactory search. Additionally, avoiding injuries and their consequences on the dog's career are not considered either.

Three aspects appear to be important in dog training according to the professionals: motivation to produce a behavior, reward, and repetition. The interest of dogs in performing olfactory activities or bite work is described with positively connoted vocabulary associated with positive emotions. However, conflicting interactions when retrieving the reward object also occur. This difficulty has also been noted among the handlers of the French Police Forces, National Gendarmerie.<sup>21</sup> Military professionals report behaviors of provocation by the dogs. Some descriptions recall behaviors associated with playful human–dog interactions,<sup>22</sup> during object play or chase games. It is possible that for some pairs, the refusal to release the object, moving away while looking at their handler, reflect playful proposals from the dogs. Sometimes the described behaviors recall object guarding, resource guarding<sup>23</sup>. There is a need to further interpret and understand the behaviors observed by the handlers and the significance of these interactions for these dogs. Moreover, the prioritization of teaching “give” by some handlers from the beginning of the team building process indicates the possibility of generalizing this approach.

<sup>19</sup> Emma M. Bennett, Cindy E. Hauser, and Joslin L. Moore, “Evaluating Conservation Dogs in the Search for Rare Species,” *Conservation Biology*, vol. 34, no. 2 (2020): 314–325, <https://doi.org/10.1111/cobi.13431>.

<sup>20</sup> Clément Martin, Claire Diederich, and François Verheggen, “Cadaver Dogs and the Deathly Hallows: A Survey and Literature Review on Selection and Training Procedure,” *Animals*, vol. 10, no. 7 (2020): 1219, <https://doi.org/10.3390/ani10071219>.

<sup>21</sup> Stéphanie Michenaud, Dalila Bovet, Thierry Lamour, and Vanessa Laguette, “Coopération homme–chien et recherches olfactives dans la Gendarmerie Nationale,” *Ethnozootechnie*, vol. 113 (2023).

<sup>22</sup> Alexandra Horowitz and Julie Hecht, “Examining Dog–Human Play: The Characteristics, Affect, and Vocalizations of a Unique Interspecific Interaction,” *Animal Cognition*, vol. 19, no. 4 (2016): 779–788, <https://doi.org/10.1007/s10071-016-0976-3>.

<sup>23</sup> Betty McGuire, Destiny Orantes, Stephanie Xue, and Stephen Parry, “Abilities of Canine Shelter Behavioral Evaluations and Owner Surrender Profiles to Predict Resource Guarding in Adoptive Homes,” *Animals*, vol. 10, no. 9 (2020): 1702, <https://doi.org/10.3390/ani10091702>.

## Limitations

This study explores the interactions and relationships within the French Armed Forces K9 teams. While the perspective of the handlers has been explored, that of the dogs only appears through descriptions of behaviors provided by the handlers. As actors engaged in olfactory search alongside the handlers, canine experiences and their meanings require investigation.<sup>24</sup> Another limitation concerns the absence of interviews with handlers belonging to Special Forces.<sup>25</sup> This would have been necessary to fully investigate the meanings attributed by K9 handlers to success, the expression of military virtues, and the relationships with death can thus be better understood.

Methodological limitations can also be raised. The first pertains to the information collected on the professional profiles of the participants. The rank of the military personnel interviewed was not requested. This information would have provided a refined and more precise insight into the analysis. The interviews and their transcription, as well as the coding process and analysis, were conducted by a single person. The absence of other individuals involved could have led to unintentional biases, even if all authors have discussed the results.

## Perspectives

The results of this study underscore the necessity of considering human–dog relationships by contextualizing them (institution, types of missions, target odor, and specialty). This provides a broader understanding of the objectives of K9 teams and their methods of achieving them. The psychosocial approach has contributed to expanding knowledge about relationships and interactions within professional K9 teams. Furthermore, this work highlights the need to rely on handlers, who possess the knowledge and operational experience with dogs. When it comes to reflecting on and making decisions about the modalities of work, life, and interactions with dogs, their experience, knowledge, and references must be taken into account and included in decisions related to their profession.

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<sup>24</sup> Clinton R. Sanders, “‘The Dog You Deserve’: Ambivalence in the K-9 Officer/Patrol Dog Relationship,” *Journal of Contemporary Ethnography*, vol. 35, no. 2 (2006): 148–172, <https://doi.org/10.1177/0891241605283456>.

<sup>25</sup> Huck and Bier, *United we conquer: Commandos marine, ils racontent leur histoire*.



### Ethics/consent

The research protocol was submitted to the Ethics Committee of the UFR SPSE of the University Paris Nanterre, which approved the project (Approval Number: 2021-04-01). The participants were informed during the study's initial presentation phase and again at the start of each interview about how they could access the study's results. The Army canine handlers, the officers, and the institution will have full access to the results (a detailed report, a written summary, and presentations either remotely or in person). This aspect, inherent to our approach, also allows for the explanation and discussion of the results and our interpretations with the professionals. It also facilitates a collective reflection on how the institution and the dog handlers can reappropriate the research and practically apply the findings.

The statements and opinions expressed in the article are solely those of the authors.

The authors report there are no competing interests to declare.

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## Bibliography

- Armée, Française. *Commandement et fraternité*. Economica, 2016.
- Bardin, Laurence. *L'analyse de contenu*. Paris: Presses Universitaires de France, 2005.
- Bennett, Emma M., Cindy E. Hauser, and Joslin L. Moore. "Evaluating Conservation Dogs in the Search for Rare Species." *Conservation Biology*, vol. 34, no. 2 (2020): 314–325. <https://doi.org/10.1111/cobi.13431>.
- Bray, Emily E., Cynthia M. Otto, Monique A. R. Udell, Nathaniel J. Hall, Angie M. Johnston, and Evan L. MacLean. 2021. "Enhancing the Selection and Performance of Working Dogs." *Frontiers in Veterinary Science*, vol. 8 (2021). <https://www.frontiersin.org/articles/10.3389/fvets.2021.644431>.



- Castillo, Monique. “Existe-t-il des valeurs propres aux militaires?” *Inflexions*, vol. 30, no. 3, (2015): 151–158. <https://doi.org/10.3917/infle.030.0151>.
- Chaniotakis, Ioannis, Evangelos Diamantakos, Georgios Mantziaras, Andreas Manousoudakis, and Nikolaos Kostomitsopoulos. “Improving Military Dogs’ Welfare: Is There a Place for Handlers’ Beliefs and Perceptions?” *Society & Animals*, vol. 26, no. 4 (2018): 388–401. <https://doi.org/10.1163/15685306-12341535>.
- Chapman, Michael T., Philip Temby, Monique Crane, Nikos Ntoumanis, Eleanor Quested, Cecilie Thøgersen-Ntoumani, Sharon K. Parker, Kagan J. Ducker, Peter Peeling, and Daniel F. Gucciardi. “Team Resilience Emergence: Perspectives and Experiences of Military Personnel Selected for Elite Military Training.” *European Journal of Social Psychology*, vol. 51, no. 6 (2021): 951–968. <https://doi.org/10.1002/ejsp.2795>.
- Diat, Nicolas. *Les écrivains sous les drapeaux*. Paris: Fayard, 2022.
- Farr, Brian D., Cynthia M. Otto, and Julia E. Szymczak. “Expert Perspectives on the Performance of Explosive Detection Canines: Operational Requirements.” *Animals*, vol. 11, no. 7 (2021): 1976. <https://doi.org/10.3390/ani11071978>.
- Foucart, Jean. “Pragmatisme et transaction. La perspective de John Dewey.” *Pensée plurielle*, vol. 33–34, no. 2–3 (2013): 73–84. <https://doi.org/10.3917/pp.033.0073>.
- Foyer, Pernilla, Anna-Maria Svedberg, Emma Nilsson, Erik Wilsso, Åshild Faresjö, and Per Jensen. “Behavior and Cortisol Responses of Dogs Evaluated in a Standardized Temperament Test for Military Working Dogs.” *Journal of Veterinary Behavior*, vol. 11 (2016): 7–12. <https://doi.org/10.1016/j.jveb.2015.09.006>.
- Fugard, Andrew J. B. and Henry W. W. Potts. “Supporting Thinking on Sample Sizes for Thematic Analyses: A Quantitative Tool.” *International Journal of Social Research Methodology*, vol. 18, no. 6 (2015): 669–684. <https://doi.org/10.1080/13645579.2015.1005453>.
- Goya, Michel. *Sous le feu: la mort comme hypothèse de travail*. Paris: Tallandier, 2019.
- Horowitz, Alexandra and Julie Hecht. “Examining Dog–Human Play: The Characteristics, Affect, and Vocalizations of a Unique Interspecific Interaction.” *Animal Cognition*, vol. 19, no. 4 (2016): 779–788. <https://doi.org/10.1007/s10071-016-0976-3>.
- Huck, Jean and Kellian Bier. *United we conquer: Commandos marine, ils racontent leur histoire*. Paris: Solar Editions, 2023.
- Lazarowski, Lucia and David C. Dorman. “Explosives Detection by Military Working Dogs: Olfactory Generalization from Components to Mixtures.” *Applied Animal Behaviour Science*, vol. 151 (2014): 84–93. <https://doi.org/10.1016/j.applanim.2013.11.010>.
- Lazarowski, Lucia, Lowell Waggoner, Sarah Krichbaum, Melissa Singletary, Pam Haney, Bart Rogers, and Craig Angle. “Selecting Dogs for Explosives Detection: Behavioral Characteristics.” *Frontiers in Veterinary Science*, vol. 7 (2020): 1–15. <https://www.frontiersin.org/articles/10.3389/fvets.2020.00597>.
- Lefebvre, Diane, Claire Diederich, Madeleine Delcourt, and Jean-Marie Giffroy. “The Quality of the Relation between Handler and Military Dogs Influences Efficiency and Welfare

- of Dogs.” *Applied Animal Behaviour Science*, vol. 104, no. 1 (2007): 49–60. <https://doi.org/10.1016/j.applanim.2006.05.004>.
- Marchisio, Christian. *Les cynotechniciens de la Royale*. Toulon: Editions Méditédition, 2023.
- Martin, Clément, Claire Diederich, and François Verheggen. “Cadaver Dogs and the Deathly Hallows: A Survey and Literature Review on Selection and Training Procedure.” *Animals*, vol. 10, no. 7 (2020): 1219. <https://doi.org/10.3390/ani10071219>.
- Mathieu, Lionel and Benoît Habermusch. *Chiens et Gendarmes: une histoire partagée*. Ajaccio: SPE Barthélémy, 2021.
- McGuire, Betty, Destiny Orantes, Stéphanie Xue, and Stephen Parry. “Abilities of Canine Shelter Behavioral Evaluations and Owner Surrender Profiles to Predict Resource Guarding in Adoptive Homes.” *Animals*, vol. 10, no. 9 (2020): 1702. <https://doi.org/10.3390/ani10091702>.
- McNicholas, June and Glyn M. Collis. “Dogs as Catalysts for Social Interactions: Robustness of the Effect.” *British Journal of Psychology*, vol. 91, no. 1 (2000): 61–70. <https://doi.org/10.1348/000712600161673>.
- Michenaud, Stéphanie, Dalila Bovet, Thierry Lamour, and Vanessa Laguette. “Coopération homme-chien et recherches olfactives dans la Gendarmerie Nationale.” *Ethnozootechnie*, vol. 113 (2023).
- Michenaud, Stéphanie, Dalila Bovet, Thierry Lamour, and Vanessa Laguette. “Working with Dogs in Olfactory Searches in the French Armed Forces and National Police Forces.” *Qualitative Research in Psychology*, (2024): 1–22. <https://doi.org/10.1080/14780887.2024.2338293>.
- Michenaud, Stéphanie, Dalila Bovet, Thierry Lamour, and Vanessa Laguette. “Human–Dog Trust and Cohesion within French Military Canine Teams.” *Military Psychology*, (2024): 1–16. <https://doi.org/10.1080/08995605.2024.2390253>.
- Sanders, Clinton R. “‘The Dog You Deserve’: Ambivalence in the K-9 Officer/Patrol Dog Relationship.” *Journal of Contemporary Ethnography*, vol. 35, no. 2 (2006): 148–172. <https://doi.org/10.1177/0891241605283456>.
- Sherman, Barbara L., Margaret E. Gruen, Beth C. Case, Melanie L. Foster, Richard E. Fish, Lucia Lazarowski, Venita DePuy, and David C. Dorman. “A Test for the Evaluation of Emotional Reactivity in Labrador Retrievers Used for Explosives Detection.” *Journal of Veterinary Behavior*, vol. 10, no. 2 (2015): 94–102. <https://doi.org/10.1016/j.jveb.2014.12.007>.
- Sinn, David L., Samuel D. Gosling, and Stewart Hilliard. “Personality and Performance in Military Working Dogs: Reliability and Predictive Validity of Behavioral Tests.” *Applied Animal Behaviour Science*, vol. 127, no. 1–2 (2010): 51–65. <https://doi.org/10.1016/j.applanim.2010.08.007>.
- Troisi, Camille A., Daniel S. Mills, Anna Wilkinson, and Helen E. Zulch. “Behavioral and Cognitive Factors That Affect the Success of Scent Detection Dogs.” *Compar-*

*ative Cognition & Behavior Reviews*, vol. 14 (2019): 51–76. <https://doi.org/10.3819/CCBR.2019.140007>.

Wael, Gaston de. *Le chien auxiliaire du combattant – dressage du chien dans toutes ses spécificités*. Le Coudray: Editions Livre d’histoire, 1925.

Zubedat, Salman, Shlomit Aga-Mizrachi, Adi Cymerblit-Sabba, Jonathan Shwartz, Joseph Fiko Leon, Shlomo Rozen, Itay Varkovitzky, Yuval Eshed, Dan Grinstein, and Avi Avital. “Human–Animal Interface: The Effects of Handler’s Stress on the Performance of Canines in an Explosive Detection Task.” *Applied Animal Behaviour Science*, vol. 158 (2014): 69–75. <https://doi.org/10.1016/j.applanim.2014.05.004>.

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