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Effects of social position and household affordances on COVID-19 lockdown resilience and coping

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ABSTRACT

In France, the COVID-19 pandemic and ensuing lockdown measures have created unprecedented circumstances that increase stress and anxiety, thus leading individuals experiencing home confinement to adopt various coping strategies that contribute to building resilience. Given the novelty and recency of the COVID-19 lockdown, factors of coping and resilience in this specific context of home confinement remain undefined. Based on some recent observations, we conducted a study on a convenience sample in France (N = 809) in order to investigate two potential factors of lockdown resilience and coping: social position and household affordances, while also exploring some complementary hypotheses based on the literature. Social position and household affordances were identified as significant predictors of lockdown coping and resilience, and low social position was found to coincide with less social support coping strategies. Results are discussed in relation to the theory and the limits identified in this study. Recommendations are made for potential second waves of COVID-19 spread or similar pandemics in the future.

1. Introduction

1.1. Context

The COVID-19 coronavirus has quickly spread and caused a global pandemic with ongoing and sometimes grave consequences on everyday lives (Raj & Aithal, 2020; Stawicki et al., 2020). To prevent further spread of the virus, French authorities have imposed unprecedented measures to restrict contact between people, including stay-at-home orders, curfews, business closures, workplace distancing, and travel bans. While these restrictions were essential in order to slow the spread of COVID-19, their impact on lifestyles and well-being is undefined and warrants further examination. Home confinement can negatively affect physical activity (Margaritis et al., 2020; Ricci et al., 2020) and eating behaviours (Almandoz et al., 2020; Ammar et al., Di Renzo et al., 2020; Haddad, Kheir, et al., 2020), cause weight gain (Bhutani et al., 2020; Duan & Zhu, 2020; Lei et al., 2020; Sarner, 2020; Tull et al., 2020) can be amplified in vulnerable populations (Ameis, Lai, Mulsant, & Szatmari, 2020; Orgil et al., 2020; Wang, Zhang, Zhao, Zhang, & Jiang, 2020). In this way, the COVID-19 pandemic can be considered a “global stressor”, caused by the ensuing lockdown measures, with negative consequences for physical and mental health.

In France, the first national lockdown began on March 17, 2020 and ended on May 11, 2020. It entailed the implementation of extreme social distancing, including mobility restrictions, banning of mass gatherings, closure of schools and work activities, isolation, and quarantine (Di Domenico, Pullano, Sabbatini, Boëlle, & Colizza, 2020, p. 2). During this period, inhabitants of all French territories were required to stay home, and were only allowed in public spaces for a set number of authorised reasons (such as essential shopping, exercising within a limit of 1 km from one’s home, unavoidable work commitments that could not be fulfilled from home, medical reasons, helping others in need, or...
responding to administrative/legal obligations). On top of this, for each outing, all individuals were required to carry a signed document that stated the time of their departure, their address, date of birth, and identity, and the reason for their outing, which could be verified by police at any time. If individuals were found by police to not be respecting the rules of lockdown, they were liable to be fined 135€ for a first offense, 200€ for a second offense, and 3750€ for a third. All outings were limited to 1 h, and mask-wearing was mandatory. As in other countries, only individuals with “essential” professions (supermarket cashiers, medical personnel, etc.) were not required to stay home during their working hours, but they were required to remain home when not working.

Faced with these unprecedented and stressful circumstances, individuals may adopt coping strategies to increase their resilience and improve their quality of life while confined at home (Fraenkel & Cho, 2020; Gerhold, 2020), particularly to better deal with the lack of social interactions and to increase their well-being (Bar, Arrafat, Kabir, Sharma, & Saxena, 2020). Thus, it is necessary to better understand and identify factors of coping and resilience in populations experiencing home confinement (Veer et al., 2020; Vinkers et al., 2020).

### 1.2. Coping with COVID-19 lockdown

Coping is defined as any behavioural or cognitive process that individuals undertake to control, tolerate, or reduce the impact of events perceived as a threat to their physical and/or psychological well-being (Lazarus & Folkman, 2020). Thus, individuals faced with situations that require intense physical and/or psychological resources adapt by adopting coping strategies (Langevin, Boini, François, & Riou, 2012). Many categorisations of coping strategies have been proposed, but there appears to be a consensus on a basic distinction between problem-focused (i.e., efforts made to solve or cognitively restructure a problem, or to modify the situation) and emotion-focused (i.e., emotional reactions induced to reduce stress) coping strategies (Folkman & Lazarus, 1988; Langevin et al., 2012). For example, Gerhold (2020) determined that Germans’ coping strategies during the pandemic were problem-focused, such as bulk buying, following expert advice, and thinking carefully before making decisions. Fullana, Hidalgo-Mazzei, Vieta, and Raj and Athal (2020) found that sixty-five percent of their sample reported feelings of anxiety or depression during lockdown, and that coping strategies were problem-focused (i.e., healthy diet, hobbies, being outdoors) and avoidance-focused (i.e., not reading too much news about the pandemic). Moreover, Li (2020) observed that problem-focused and emotion-focused coping were congruous with good mental health. Given the recency and the novelty of the COVID-19 lockdown, it is essential to understand individuals’ coping strategies in order to better prepare for potential new waves of COVID-19 spread, or similar situations in the future (Holmes et al., 2020). To date, however, factors that can foster coping strategies in confined individuals remain undefined, although some studies have examined them in the specific context of the COVID-19 lockdown (Veer et al., 2020; Wang, Xia, et al., 2020).

### 1.3. Building resilience to recover from lockdown

Ultimately, coping strategies are put in place to increase resilience (e.g., Campbell-Sills, Cohan, & Stein, 2006; Secades et al., 2016), and resilient individuals tend to adopt more effective coping strategies (e.g., Leipold & Greve, 2009). In other words, the more coping strategies are deployed and are effective, the more resilient individuals become, and the more resilient they are, the more effective are their coping strategies. Here, resilience is defined as “the ability to bounce back or recover from stress” (Smith et al., 2020, p. 194). As such, it is a promising construct to study in relation to coping in a post-confinement perspective, as it has been shown to protect against the negative psychological consequences of stressful or traumatic events (Thompson, Florillo, Rothbaum, Ressler, & Michopoulos, 2018). The importance of resilience for successfully recovering after the pandemic was recently demonstrated in Slovenia by Kavcic, Avsec, and Kocjan (2020). In their study, resilience was an essential factor of “good” psychological functioning during the outbreak, and it protected against the negative effects on mental health and stress of demographic and health-related variables. Moreover, social connectedness during the COVID-19 pandemic can increase resilience and has been associated with reduced distress and fatigue (Nitschke et al., 2020). Various coping strategies have also been associated with increased resilience during lockdown, such as going outside more often, physical activity, social support, sleep, and prayer (Kyllgore, Taylor, Cloonan, & Dualey, 2020). However, there are to our knowledge few systematic studies that investigate lockdown-related factors of resilience (Brooks et al., 2020; Veer et al., 2020), as most have to date focused on factors of stress or anxiety during the pandemic (Gao et al., 2020; Lei et al., 2020; Mazza et al., 2020; Qiu et al., 2020; Tull et al., 2020; Zhang et al., 2020), and less upon factors of lockdown coping and resilience (Veer et al., 2020).

During a period of home confinement, two factors in particular appear susceptible to affect individuals’ resilience and coping strategies: household affordances, and social position. The coronavirus lockdown is known to have deepened pre-existing social inequalities in France (i.e., Recchi et al., 2020), thus it is necessary to explore the relationship between social position and lockdown coping and resilience. However, social inequality alone cannot account for coping and resilience while confined at home, in that housing quality varies greatly in France (particularly between urban and rural areas) regardless of social position (i.e., Laferrère, Pouliquen, & Rougerie, 2017). In other words, through the characteristics of their home, individuals with a low social position but residing in a rural, semi-rural, or village environment may have access to more coping strategies in relation to lockdown than individuals with a strong social position but who reside in a small metropolitan apartment (i.e., less space, less access to natural spaces, fewer private areas, etc.). As such, an exploration of lockdown coping and resilience in relation to social position and the characteristics of the home is warranted, as these variables may interact in relation to coping and resilience during lockdown.

### 1.4. The role of household affordances

From a psycho-environmental perspective, the idea of “affordances” was first introduced by Gibson (1979) to account for the ability of living-beings to adapt to their environment. For him, the individual and the environment share an interdependent relationship, whereby an individual’s characteristics interact with the physical context to offer solutions to adapt (Gibson, 1986). Affordances are thus non-symbolic, and arise when individuals directly identify an environmental property with adaptive potential. Thus, places derive meaning from direct perception-action processes, which enable the formation of immediate perceived functional, social, or symbolic meaning of place (Raymond, Kyttä, & Stedman, 2017) (Lopes, Cordovil, & Neto, 2018, p. 1). Thus, “when an individual perceives an affordance in a given space through an immediate sensory-action process, a significant feature or cue in the physical landscape specifies a possibility of action according to the individual’s developmental characteristics and the specific feature within such space” (p. 2). For this, individuals’ physical, social, and

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1 These can include self-talk (Damirchi, Mojarrad, Pireinaladin, & Grijbovski, 2020), connecting with others through social media (Chironome et al., 2020; Gammon & Ramshaw, 2020; Theblal & Theblal, 2020; Iyayagahavan & Singhal, 2020), spending time outdoors (Chironome et al., 2020; Samuelsen, Barbel, Golding, Maccaro, & Guist, 2020), staying informed (2020; Langmann & Wittfoht, 2020), physical activity (Chironome et al., 2020), leisure activities with fellow co-inhabitants (Chironome et al., 2020), cultural activities (Chironome et al., 2020), humour (Gavinsky, Findling, Erkel, & Hendel, 2020), bonding with pets (Bezek, 2013), and activities that induce pre-lockdown nostalgia such as playing traditional board games or watching classic films or memorable sports events (Gammon & Ramshaw, 2020).
psychological characteristics must match the physical and sociocultural qualities of their environment (Kyttä, 2003, 2004; Lopes et al., 2018), in that “the affordance of anything is a specific combination of the properties of its substance and its surfaces taken with reference to an animal” (Gibson, 1979, p. 67). In other words, “the affordances of the environment are what it offers animals, what it provides or furnishes, for good or ill” (p. 68). Applied to the home, affordances are thus defined as what the home can offer to its inhabitants, both substantially and on the surface, in order for them to adapt to a given situation.

In light of this definition, the concept of household affordances offers potential for the study of resilience and coping among individuals confined at home. For one, household affordances can be integral to effective management of personal health information, essential during a health crisis. Specifically, in the context of the COVID-19 pandemic, there is some tentative evidence that household affordances can play an important role in individuals’ experience of lockdown. In Nigeria, electricity and water access were deemed essential in individuals’ respect of lockdown and in mitigating the pandemic (Cift et al., 2020), although such considerations are not in question in the French context. In India, individuals working from home preferred to do so in the bedroom and students preferred to study outside (Pasala, Gumpeny, Kosuri, Tippana, & Gumpeny, 2020), raising the question of some household affordances (or lack thereof) as a potential hindrance or benefit for teleworking. Going further, D’Alessandro (D’Alessandro et al., 2020) identified five key criteria for housing to benefit well-being during lockdown: visibility and accessibility of green spaces (see also Samuelson, Barthel, Colding, Macassa, & Giusti, 2020), flexibility so as to favour privacy and avoid crowding, thermal comfort and good indoor air quality, availability of clean drinking water, and adaptability to increased waste production and energy consumption. These examples suggest that the presence of certain physical characteristics of the home, such as outdoor spaces and access to nature, electricity access, water quality, square-footage, private areas, and work space, may bolster resilience and provide more coping potential. Other characteristics such as Internet access, spaces for physical activity, semi-private areas, number of co-inhabitants, proximity of shops and health services, kitchen equipment, and pets, appear essential for the adoption of some coping strategies (i.e., individuals confined in homes with no garden or balcony can spend less time outdoors; individuals confined in homes with no semi-private areas may struggle to meet with their neighbours, etc.).

These considerations indicate that household affordances may play a central role in lockdown resilience and coping, and that they may intersect with the second potential factor of lockdown resilience and coping we identified: social position. This is especially relevant during the coronavirus pandemic, as the impacts of lockdown appear to have deepened pre-existing housing inequalities (Accornero et al., 2020; Gonzalez & Marlowsits, 2020). In a recent study, Judge and Rahman (2020) not only identified age, income, and ethnicity gaps in housing quality pre-lockdown (i.e., younger generations generally had less access to outdoor spaces and lived in less attractive neighbourhoods than older generations; minority ethnicities were housed in worse conditions than white people; low-income groups had less housing quality than high-income groups), they also observed that renters’ well-being had deteriorated with lockdown whereas homeowners’ had not. Similarly, consistent with previous observations (Frehc & Williams, 2007; Kalmijn, 2017), being married or cohabiting with one’s partner is a protective factor against psychological suffering during lockdown, whereas being in a relationship without cohabiting is a risk factor (Rodríguez-Rey, Garrido-Hernansaz, & Collado, 2020). Moreover, individuals with high income and high-speed Internet access are more likely to stay at home during lockdown (Chiu & Tucker, 2020). Moreover, poor self-reported quality of life during lockdown was associated with the negative lifestyle and emotional impacts of household confinement, from which the presence of pets provided protection (2020Bowen, Garcia, Darder, Argüelles, & Fatjo, ). In France, it seems that homes that were otherwise considered well located lost their appeal when places to go out closed, or when teleworking erased the need to live close to work, and that home confinement has brought about entirely new ways of navigating one’s home. In sum, these examples suggest that “living conditions have a greater impact on well-being today than before the coronavirus crisis” (p. 4), and that household affordances and social position may be linked in relation to various well-being indicators during lockdown.

1.5. The role of social position

Beyond its potential interaction with household affordances, social position alone may be a significant factor of lockdown resilience and coping. Here, we adopted an approach of social position based upon the idea that a society “constructs some ideal or optimum which is most highly regarded by members of the society”, and that “the more closely individuals or groups conform with the ideal, the more they are respected and admired by others and the higher their position in the hierarchy of social levels” (Myers & Reynolds, 1967, p. 206). Thus, individuals who “rank” highly in this social hierarchy are said to belong to a high-status group. Although social position is dynamic and takes meaning from intergroup contexts that define groups’ respective status depending on the relationships they have with each other, social position can be apprehended through three differently weighted factors: occupation, education, and income (Mibić & Cilina, 2006). For these authors, occupation is the most important factor of social position, followed by education and income, because “a person with a university degree, a teacher or lawyer may have the same or lower income than a car mechanic” (p. 78).

Social position has been observed as a factor of vulnerability in past pandemics (e.g., Bengtsson, Dribe, & Eriksson, 2018; Garoon, 2008). Not only can low status increase the risk of COVID-19 (Aimee et al., 2020; Khalatbari-Soltani, Cumming, Delpierre, & Kelly-Irving, 2020; Martin et al., in press), but social inequalities can be reinforced during lockdown (Dobusch & Kreissi, 2020; Kristal & Yaish, 2020), including in France (Bajos et al., 2021; Recchi et al., 2020). This was the case in the USA, where minority communities were more severely impacted by lockdown (Fortuna, Tolou-Shams, Robles-Ramamurthy, & Porche, 2020). Similarly, young, low-income Britons were hit hardest by the financial costs of lockdown (Adams-Prassl, Boneva, Golin, & Rauh, 2020a; see also Gupta, Zhu, Doan, Michuda, & Majumder, 2020, in India; or Jaynssens et al., 2020, in Kenya), and the impacts of lockdown on labour markets have exacerbated existing inequalities in the UK, USA, and Germany (Adams-Prassl, Boneva, Golin, & Rauh, 2020b). In Italy, lockdown measures created a segregation effect where human mobility contraction was stronger in areas with high inequality and low income per capita (Bonaccorsi et al., 2020). Kavčič et al. (2020) found that female, younger, and less educated adults were more at-risk from psychological dysfunction during lockdown (although resilience could buffer these effects). Moreover, low privilege groups are more at-risk from “digital poverty” in that they are less able to keep up with digital migration during lockdown (Seah, 2020), and low education level and low family income are associated with stronger negative psychological effects of home confinement (Rodríguez-Rey et al., 2020; Wang, Pan, et al., 2020). Further evidence was provided by Kimhi et al. (2020) who observed more pandemic-related fear and less resilience in Israeli Arabs (minority group) than Israeli Jews (majority group). Generally, these studies indicate that individuals from low status groups encounter more difficulty in adapting to lockdown. It follows that these difficulties may impact their resilience and coping strategies, thus warranting investigation for future waves of COVID-19 spread or similar pandemics in the future.

Understanding lockdown resilience and coping in relation to household affordances and social position can be useful for developing solutions. Based on the considerations above, we expected that household affordances and social position would exert an interaction effect on lockdown resilience and coping. As previously stated, certain French
homes that were originally considered to be well situated suddenly were cramped and unwelcoming when places to go out closed, and new characteristics, such as common areas or access to outdoors, became more valuable. Moreover, the requirement to telework rendered void the benefits of living close to work. In this way, it appears that household affordances are not solely determined by social position, as rural inhabitants, for example, may have more outdoor access during lockdown than urban inhabitants regardless of social position (Pères et al., 2021). In other words, we expected individuals with both a high social position and numerous household affordances to present more lockdown resilience and coping strategies; and individuals with a low social position and few household affordances to express less lockdown resilience and coping strategies.

2. Method

2.1. Participants

Our target population was French adults experiencing COVID lockdown at the time of the study. Using a snowball sampling technique, we convened a convenience sample comprised of 708 females, 99 males, and 2 non-binary respondents (N = 809) who answered an online questionnaire during the last three weeks of the first national lockdown in France (from March 17, 2020 to May 11, 2020), meaning that all participants had been experiencing lockdown for the same time period. Thus, eligibility criteria were to be experiencing lockdown at the time of the study, and answers were limited to respondents residing in France (Metropolitan and overseas territories) as lockdown rules were the same for all French territories at the time. Mean age was 44.51 years (min: 18; max: 99; SD = 13.13).

2.2. Measures and procedure

Place of Residence During Lockdown. Participants first indicated whether they were confined in their primary, secondary, or other place of residence during lockdown. Participants who answered “other” were invited to specify. This question was positioned first in the questionnaire as it was important for participants to answer the subsequent items in reference to their place of residence during lockdown (and not their usual place of residence in case of lockdown mobility).

Household Affordances. Next, participants described the affordances of their household by answering a scale designed to measure household affordances during lockdown (Appendix 6.1). To our knowledge, there is no pre-existing measure of affordances applied specifically to the household in a lockdown context. Thus, we developed a scale based on previous research on youth (Clark & Uzzell, 2005; Lopes et al., 2018), designed to be a preliminary unidimensional measure of household affordances. This instrument is comprised of 30 items on scales from 1 (completely disagree) to 5 (completely agree), adapted to a lockdown context (e.g., “My residence during lockdown has enough space for me to exercise”, “My current residence during lockdown is equipped with an Internet connection”). This scale presented excellent reliability (α = 0.94; Ursachi, Horodnic, & Zait, 2015). Thus, high scores on this scale are indicative of a high level of household affordances.

Household characteristics. Following this measure, participants were required to provide further details about their place of residence during lockdown: surface area (in square-meters), access to outdoors (yes/no) and type and surface area (in square-meters) of outdoor access (balcony, terrace, garden, interior courtyard, outside courtyard, other). They also indicated if they had pets (yes/no) and which pets they had, and whether they lived in a house or an apartment during lockdown (or other).

Resilience. Next, participants answered the Brief Resilience Scale (BRS; Smith et al., 2020) comprised of six items measured on scales from 1 (completely disagree) to 5 (completely agree). Here, items were adapted to the lockdown context (Appendix 6.2) and presented satisfactory reliability (α = 0.80; Ursachi et al., 2015).

Coping Strategies. Participants then answered the Ways of Coping Checklist (WCC; Folkman & Lazarus, 1980). The French version of this scale (Cousson, Bruchon-Schweitzer, Quintard, Nuissier, & Rascle, 1996) is comprised of 27 items measured on scales from 1 (No) to 4 (Yes). However, to maintain consistency across measures, each item was measured on scales from 1 (completely disagree) to 5 (completely agree) in this study. The 27 items of this scale, adapted to the lockdown context, are organised according to three factors: problem-focused coping (i.e., efforts made to confront the situation), emotion-focused coping (i.e., efforts made to reduce the emotional impact of the situation), and social support coping (i.e., seeking help/support from others). Reliability was satisfactory for the problem-focused coping items (α = 0.81), and was acceptable for the emotion-focused (α = 0.72) and the social support coping items (α = 0.64; Ursachi et al., 2015). The full Ways of Coping Checklist is provided in Appendix 6.3.

Lockdown Circumstances and Personal Data. Participants then provided further information about themselves and their behaviour during lockdown. They indicated if they had left their residence since the official start of lockdown (March 17, 2020 in France). If yes, they estimated the weekly frequency of these outings (daily, several times per week, twice per week, less than once per week), and then provided the main reasons for these outings based on governmental guidelines on scales from 1 (never) to 5 (very often): “to make essential purchases”, “to work”, “to help someone”, “to exercise”, “to consult a medical professional”, “for a legal/administrative obligation”, and “to participate in community service”. If no, they provided the reasons on scales from 1 (completely disagree) to 5 (completely agree): “I have not needed to go out”, “I respect governmental guidelines”, and “I am fearful of contracting COVID-19”. Last, they provided their age, gender, postcode, current and usual number of inhabitants (adults and minors) in their residence, age of minors (if applicable), and professional circumstances during lockdown.

Social Position. The last items of the questionnaire were designed to calculate an index of social position (ISP) for each participant using the method proposed by Hollingshead (1975) and developed by Mihic and Culina (2006), based on occupation, income, and education level. Participants provided their exact profession through an open-ended question, and then indicated their job category according to those defined by Mihic and Culina (2006). Job categories were cross-checked with exact professions and corrected when necessary. Respondents then indicated their education level, with possible answers adapted to the French education system. Last, they provided their monthly gross income according to the milestones set by Mihic and Culina (2006). When calculating participants’ ISP, each factor is weighted in order to reflect its relative importance in determining social position, resulting in the following formula: ISP = (Occupation score x 4) + (Education score x 3) + (Income score x 3). The ISP scale is provided in Appendix 6.5.

2.3. Hypotheses

Based on the theoretical considerations presented previously, we expected that resilience and coping would be positively linked during lockdown (e.g., Campbell-Sills et al., 2006; Leipold & Greve, 2009; Secades et al., 2016), and that household affordances (e.g., Gilt et al., 2020; Pasala et al., 2020) and social position (e.g., Adams-Prassl et al., 2020a; Fortuna et al., 2020) would predict lockdown resilience and coping. Going further, as recent observations have implied that household affordances and social position are linked in relation to the consequences of lockdown (e.g., Chiou & Tucker, 2020; Judge & Rahman, 2020; Rodríguez-Rey et al., 2020), we expected that social position and household affordances would exert an interaction effect on lockdown resilience and coping (Fig. 1).

Furthermore, we emitted some secondary hypotheses for investigation in our sample. As referenced in the introduction, we expected that individuals locked-down in larger residences would present stronger...
resilience and coping than those in smaller residences (e.g., D’Alessandro et al., 2020); and that the presence of pets would bolster these variables (e.g., Bowen et al., in press). Moreover, we expected individuals with outdoor access to present more lockdown resilience and coping than those without (e.g., Chirombe, Benza, Munetsi, & Zirima, 2020). To finish, we expected participants’ lockdown coping strategies to be mostly problem-focused rather than emotion- or social support-focused (e.g., Fullana et al., 2020; Gerhold, 2020; Li, 2020).

3. Results

3.1. Participants’ experience of lockdown

Most respondents had left their residence at least once during lockdown (97.5%). On scales from 1 (never) to 5 (very often), their declared reasons for leaving their residence during lockdown were to make essential purchases (m = 3.47, SD = 1.3), to exercise (m = 2.5, SD = 1.54), to help someone (m = 1.98, SD = 1.28), to work (m = 1.84, SD = 1.46), to consult a medical professional (m = 1.59, SD = 1.06), to participate in community service (m = 1.15, SD = 0.64), and/or for a legal/administrative obligation (m = 1.02, SD = 0.21). On scales from 1 (completely disagree) to 5 (completely agree), participants who had not left their home during lockdown were following governmental advice (completely disagree) to 5 (completely agree), participants who had not needed to (m = 1.34), had not needed to (m = 4.24, SD = 1.34), had not needed to (m = 4.1, SD = 1.45), and/or feared contracting COVID-19 (m = 3.38, SD = 1.75).

Participants were mostly confined in their primary place of residence (95.7%), while some were confined in a secondary residence (1%) or with friends/family (3.3%). They were confined in houses (60.6%), apartments (41%), or other (2.3%; boats and mobile homes). Overall, 84.9% had access to outdoors during lockdown (garden, balcony, common areas, countryside, etc.), whereas 15.1% did not, and 60.6% had at least one pet at home during lockdown (39.4% did not). Adult inhabitants during lockdown (m = 1.98, SD = 1.02) were significantly more numerous than usual (m = 1.88, SD = 0.78; t (808) = 3.11, p = .002). However, the number of minor inhabitants during lockdown (m = 0.75, SD = 1.03) was identical to the usual number of minor inhabitants (m = 0.75, SD = 1.03; t(808) = 0.38, p = .71, NS). Professional circumstances during lockdown varied: 15.3% were still going to work, 22.6% were switching between telework and travelling to work, 28.6% were teleworking, 13.2% were partially unemployed because of lockdown, 8.8% were already unemployed before lockdown, and 11.5% had retired.

3.2. Coping strategies

To begin, coping strategies, which display normal distribution with skewness of -0.197 and kurtosis of 0.748 (George & Mallery, 2010), appear mainly problem-focused rather than focused on emotion or social support (Table 1).

In this way, the problem-focused coping score was significantly higher than the emotion-focused (t (808) = 31.83, p < .001) or social support (t(808) = 46.25, p < .001) coping scores. Emotion-focused and social support coping displayed similar levels (t (808) = 1.43, p = .152). These results validate our hypothesis of predominantly problem-focused coping styles to deal with lockdown.

3.3. Presence of pets

Contrary to previous suggestions, we observed no significant coping differences between participants with or without pets during lockdown. This observation applied to problem-focused (respectively, m = 33.88, SD = 7.48; and m = 32.89, SD = 7.67; F (1, 807) = 3.31, p = .07, NS), emotion-focused (respectively, m = 22.9, SD = 6.33; and m = 22.48, SD = 6.44; F (1, 807) = 0.835, p = .361, NS), and social support (respectively, m = 22.58, SD = 5.58; and m = 22, SD = 5.02; F (1, 807) = 2.18, p = .14, NS) coping strategies. Moreover, we observed no significant lockdown resilience differences between individuals with (m = 21.21, SD = 5.48) and without (m = 21.69, SD = 5.39) pets (F (1, 807) = 1.57, p = .21, NS). These results invalidate our hypothesis of stronger lockdown resilience and coping in individuals with rather than without pets.

3.4. Household surface area

We found that household surface area (in square-meters) was a significant predictor of lockdown resilience (R^2 = 0.006, F (1, 802) = 4.6, p = .03). However, household surface area failed to predict problem-focused (R^2 = 0.004, F (1, 802) = 0.003, p = .07, NS) or social support (R^2 = 0.001, F (1, 802) = 0.02, p = .89, NS) coping strategies. However, household surface area predicted emotion-focused coping (R^2 = 0.007, F (1, 802) = 5.46, p = .02), albeit with a small proportion of explained variance (0.7%).

These results validate our hypothesis of increased resilience in individuals with larger residences, and invalidate this hypothesis with regard to coping with lockdown, with the exception of emotion-focused coping (although negligible given the small proportion of explained variance).

3.5. Access to outdoors

Individuals with outdoor access during lockdown (m = 21.51, SD = 5.41) displayed similar levels of resilience than individuals with none (m = 20.79, SD = 5.68; F (1, 807) = 1.83, p = .17, NS). Similarly, we observed no effect of outdoor access on social support coping (respectively, m = 22.49, SD = 5.35; m = 21.56, SD = 5.44; F(1, 807) = 3.12, p = .08, NS). However, problem-focused coping scores were significantly higher in individuals with outdoor access during lockdown (m = 33.72, SD = 7.51) compared to those without (m = 32.26, SD = 7.84; F(1, 807) = 3.85, p = .05, η^2_p = .005). Contrariwise, emotion-focused coping was weaker in individuals with outdoor access during lockdown (m = 22.46, SD = 6.30) compared to those without (m = 24.29, SD = 6.58; F(1, 807) = 8.57, p = .004, η^2_p = .011).

These results validate our hypothesis of stronger problem-focused coping styles among individuals with outdoor access during lockdown compared to those without. However, resilience and social support coping did not vary between groups. Emotion-focused coping was stronger in individuals with no outdoor access, suggesting that individuals for whom spending time outdoors during lockdown was impossible adopted more emotion-focused coping strategies to deal with lockdown (with the assumption that going outdoors to deal with home confinement is a problem-focused coping strategy).

| Table 1 | Descriptive statistics for the Ways of Coping Checklist. |
|---------|----------------------------------------------------------|
| N = 809 | Mean          | SD           | Skewness (SD) | Kurtosis (SD) |
| Problem | 33.49         | 7.57         | -.25 (.99)    | .10 (.17)     |
| Emotion | 22.74         | 6.37         | .24 (.09)     | -.28 (.17)    |
| Support | 22.35         | 5.37         | .21 (.09)     | .75 (.17)     |
3.6. Interaction effects of social position and household affordances on lockdown resilience and coping

We conducted bivariate Pearson correlations that indicated a significant positive correlation between problem-focused coping and resilience ($r = 0.24, p < .01$), no correlation between social support coping and resilience ($r = 0.03, p = .36$), and a significant negative correlation between emotion-focused coping and resilience ($r = -0.47, p < .01$). These results suggest that lockdown resilience is positively related to problem-focused, negatively related to emotion-focused, and not related to social support coping strategies. Although these results technically validate our hypothesis of a link between lockdown coping and resilience, the mixed results obtained for each coping strategy warrant further discussion.

Next, we sought to explore the hypothesized interaction effects of household affordances and social position on lockdown resilience and coping using a simple moderation analysis (Fig. 1). An ISP was calculated for each participant (following the Mihic and Culina (2006) formula, Appendix 6.5), which led to the following distribution in our sample: 101 (12.5%) high social position respondents ($m = 20.69, SD = 4.09$), 489 (60.4%) medium social position respondents ($m = 45.69, SD = 9.23$), and 217 (26.8%) low social position respondents ($m = 71.67, SD = 8.32$). Two participants (0.2%) had not provided their income so their ISP was not calculated. The household affordances score ($m = 116.37, SD = 22.07, min: 30, max: 152) appears to be normally distributed, with skewness of $-0.946$ and kurtosis of 0.774 (George & Mallery, 2010). All data were centred in order to conduct a series of simple moderation analyses (Fig. 1).

Our first moderation analyses sought to determine whether household affordances moderated the effect of social position on coping with lockdown. Specifically, we performed three moderations analyses with each of the WCC scale’s centred sub-scores. For problem-focused coping, the overall moderation model was significant ($R^2 = 0.12; F (3, 803) = 37.65, p < .001$). In this model, the simple effect of social position on problem-focused coping was significant ($b = 0.03, t (803) = 2.13, p = .03$), as was the simple effect of household affordances on problem-focused coping ($b = 0.12, t (803) = 10.23, p < .001$). However, the interaction effect was not significant ($b = 0.02, t (803) = 0.25, p = .80, NS$). This suggests that social position and household affordances both predicted problem-focused lockdown coping strategies, but that these predictors did not exert an interaction effect on problem-focused coping.

The overall moderation model for emotion-focused coping was statistically significant ($R^2 = 0.09; F (3, 803) = 26.61, p < .001$), as were the simple effects of social position ($b = 0.06, t (803) = 5.60, p < .001$) and household affordances ($b = -0.06, t (803) = -5.93, p < .001$). The interaction effect was however not significant ($b = 0.003, t (803) = 0.56, p = .57, NS$). Similar to problem-focused coping, social position and household affordances accounted for emotion-focused coping, but they did not interact.

For social support coping, the overall moderation model was significant ($R^2 = 0.09; F (3, 803) = 26.61, p < .001$). The simple effect of social position on social support coping was not significant ($b = -0.01, t (803) = -0.77, p = .44, NS$), but the simple effect of household affordances was ($b = 0.04, t (803) = 5.02, p < .001$). The interaction effect of social position and household affordances was significant ($b = 0.01, t (803) = 1.81, p < .05; Fig. 2$).

The conditional effects of household affordances on the relationship between social position and social support coping strategies is presented below (Table 2).

According to this moderation, at low levels of household affordances, social status predicts social support coping. At these low levels of household affordances, as social position decreases, social support coping also decreases. However, social position does not appear to predict social support coping when household affordances are medium or high. Thus, this indicates that individuals with poor levels of household affordances and low social position adopt less social support coping strategies to deal with lockdown.

Our final moderation analysis sought to determine if household affordances and coping strategies exert an interaction effect on lockdown resilience. Here, the overall moderation model was statistically significant ($R^2 = 0.19; F (3, 803) = 64.44, p < .001$). The simple effects of social position ($b = -0.03, t (803) = -3.23, p < .001$) and household affordances ($b = 0.10, t (803) = 12.70, p < .001$) were both significant. The interaction effect was non-significant ($b = -0.006, t (803) = -1.23, p = .22, NS$). Similar to coping (with the exception of social support), lockdown resilience was predicted by social position and by household affordances, but no interaction was observed.

3.7. Effects of specific household affordances on lockdown resilience and coping

To finish, we sought to determine if any specific household affordances were more integral than others in building resilience and adopting coping strategies while confined at home. To achieve this, we conducted a series of linear regression analyses, with all 30 affordances defined as dependent variables; and resilience, problem-focused, emotion-focused, and social support coping scores as predictors (Appendix 6.4).

For lockdown resilience, the regression model was significant ($R^2 = 0.29; F (30, 778) = 10.32, p < .001$). Specifically, spaces that provide feelings of freedom at home ($b = 0.11, t (30, 778) = 2.51, p = .01$), comfortable indoor areas ($b = 0.12, t (30, 778) = 2.18, p = .03$), and spaces that improve feelings of well-being ($b = 0.23, t (30, 778) = 4.38, p < .001$) all contributed significantly and positively to the model. Moreover, restorative outdoor spaces ($b = -0.14, t (30, 778) = -3.16, p = .002$), spaces for practicing a physical activity ($b = -0.12, t (30, 778)$

![Fig. 2. Interaction effects of household affordances and social position on social support coping.](image-url)
means to increase their coping possibilities and their resilience (Verger et al.).

Household affordances were found to be a positive factor of lockdown coping and resilience. This was supported by the observation that larger residences are positively related to resilience, and suggests that household affordances such as private areas, space to practice a physical activity, access to outdoors, adequate workspace, and proximity to healthcare services (…), are integral to coping with lockdown and building resilience. This should however be considered in relation to the novelty of the household affordances scale deployed in this study. To our knowledge, no valid instruments exist that measure the affordances of households, especially in times of lockdown. In light of this, we set out to develop a measure loosely based on studies on the affordances of children’s and adolescents’ environments (Clark & Uzzell, 2005; Lopes et al., 2018). However, given the multidimensionality of home and the variety of activities that take place within it (Bélanger & Coolen, 2014, pp. 1–4), the development of a multidimensional, more complete measure appears appropriate. That said, our results indicate that increasing affordances of the home during lockdown would have positive effects no matter the social position. If pandemic mitigation measures such as lockdown and social distancing are to become a recurrent theme in the future, building design may gain from the teachings of the COVID-19 lockdown and ensure that homes are laid-out in such a way as to provide the most possible affordances that could be beneficial during a period of home confinement. Moreover, local authorities may wish to ensure that services are provided to improve the affordances of neighbourhoods during lockdown, particularly in impoverished areas. Indeed, we found that individuals with outdoor access during lockdown adopted more problem-focused and less emotion-focused coping strategies than those with no outdoor access. Given the significant negative correlation observed between emotion-focused coping and resilience, and the positive correlation between problem-focused coping and resilience, it appears necessary to promote problem-focused coping in individuals who do not have outdoor access during lockdown. In light of these results, an exploration of the efficacy of emotion-focused versus problem-focused coping for building lockdown resilience would be an interesting avenue for future research.

Contrary to some recent observations (e.g., Bowen et al., in press), we found that the presence of pets in the home was not a factor of lockdown coping and resilience. However, our observation is based on one dichotomous item that was not particularly refined and did not consider pet species. In this way, Oliva and Johnston (2020) recently found that dog ownership was not a factor of loneliness or mindfulness during lockdown, but that it was a protective factor against stress and depression. This suggests that the benefits of pets during lockdown depend on characteristics such as pet species (dogs, for example, encourage routine and require walking), and that some pets can protect against the negative mental health consequences of lockdown.

As observed elsewhere (e.g., Fullana et al., 2020; Gerhold, 2020; Li, 2020), coping strategies were predominantly problem-focused in our study, as demonstrated by the significantly higher problem-focused coping scores on the WCC compared to emotion-focused or social support coping, thus validating our hypothesis. This observation appears to contradict a review that suggested that individuals prefer not only problem-focused, but also social support coping strategies in times of a pandemic (Chew, Wei, Vasoo, Chua, & Sim, 2020). This has implications for future lockdowns, as emotion-focused and social support coping, unlike problem-focused coping, have been shown to improve recovery after stressful events (Wolfe & Bay, 2015). Similarly, Li (2020) found that although problem- and emotion-focused coping strategies were congruous with good mental health, problem-focused coping was positively associated with PTSD level. These studies, however, contradict the negative correlation observed between emotion-focused coping and resilience, the positive correlation between problem-focused coping and resilience, and the lack of correlation between social support coping and resilience. Thus, longitudinal studies on recovery during and after...
lockdown, particularly regarding the efficacy of different types of coping strategies, would be beneficial. Moreover, future research would benefit from an examination of the effects of national factors such as social welfare policies and economic inequalities in general on coping with lockdown and building resilience.

5. Conclusion

Social position and household affordances were identified as significant factors of lockdown coping and resilience in France during the COVID-19 pandemic. In this way, individuals belonging to underprivileged social groups expressed fewer coping strategies than middle- or upper-class respondents, and they sought out less social support when their household offered few affordances. Moreover, individuals with few household affordances, regardless of social position, also expressed fewer coping strategies and lower resilience than individuals with a plethora of household affordances. Thus, household affordances can be protective factors against the negative consequences of lockdown as they are positively associated with coping and resilience, notably in terms of social support in low status groups. In future lockdowns, local authorities should act to increase the affordances of homes and neighbourhoods, particularly in under-privileged populations. Specific, modifiable affordances, such as Internet access, access to outdoor spaces, neighbourly support programs, and availability of sporting apparatus, should be a focus in future lockdowns as they were associated with higher levels of coping strategies and resilience. In light of the limits identified in this study, further research to develop and refine a measure of household affordances, as well as studies conducted to explore the role of pets, relations between resilience and different coping strategies, and the efficacy of different types of coping strategies in accelerating recovery are warranted. A longitudinal examination of the relations between resilience, coping, and the negative mental health consequences of lockdown would also be beneficial, if such situations arise again in the future.

Declaration of competing interest

None.

6. Appendix

6.1. Household affordances scale

Each item is measured on scales from 1 (completely disagree) to 5 (completely agree).

1) Despite being confined, I feel a certain degree of freedom being in my home;
2) My living space offers areas where I can have privacy during lockdown;
3) My living space is comfortable enough for me to be at ease during lockdown;
4) My living space is spacious enough for me to be able to move about during lockdown, all while staying at home;
5) I feel that the atmosphere inside my home is nice enough for me to live well during lockdown;
6) I feel that the atmosphere outside my home is nice enough for me to live well during lockdown (balcony, terrace, garden, courtyard, street, etc.);
7) In my home, I can make the most of life during lockdown;
8) The layout of my living space allows me to have contact with other people (neighbours, friends, family) during lockdown;
9) My living space enables me to stay in good health during lockdown;
10) I have feelings of well-being while being confined in my home;
11) My living space gives me access to my family during lockdown;
12) While being confined, my living space allows me to practice the activities that I want;
13) My kitchen is equipped well enough for me to cook the meals I want to eat during lockdown;
14) During lockdown, I feel secure in my living space;
15) I feel that my living space is warm, even during lockdown;
16) My current home has enough space for me to practice a physical activity during lockdown;
17) During this lockdown period, it is possible for me to share intimate moments in my living space;
18) While being confined in my home, I feel supported by my neighbours;
19) While being confined in my home, I feel supported by my loved ones (friends/family);
20) My living space is equipped with sport apparatus (gym, swimming pool, tennis court, etc.)
21) In my view, being confined in my home is far from a punishment;
22) Despite being confined, I feel that I can breathe in my living space;
23) I do not feel cramped while I am confined in my living space;
24) I can practice my hobbies in my living space;
25) My living space is equipped with an Internet connection;
26) The layout of my living space is favourable to having children at home during lockdown;
27) The layout of my living space is favourable to children’s school work during lockdown;
28) My living space has an area where I can telework successfully (office, calm room, etc.);
29) My living space is close enough to different healthcare services (hospital, doctor, dentist, etc.) for me to get treatment if needed during lockdown;
30) My living space is located in an environment where I feel close to nature during lockdown.

6.2. Brief Resilience Scale (adapted to lockdown)

Items are measured on scales from 1 (completely disagree) to 5 (completely agree). Coding for items 2, 4, and 6 is reversed.

1) I will bounce back quickly after lockdown;
2) I have difficulty getting through this lockdown period;
3) I will not need long to recover after lockdown;  
4) When lockdown is lifted, I will need time to recover;  
5) I am not experiencing many difficulties during lockdown;  
6) I will need a long time to get over this lockdown period.

6.3. Ways of Coping Checklist

Nota Bene. Items are translated from the valid French version used in this study (Cousson et al., 1996).

Problem-focused coping:

1) I make a plan of action and I stick to it  
4) I fight for what I want  
7) I change for the better  
10) I take things one by one  
13) I focus on something positive that could happen later  
16) I know that this situation will ultimately make me stronger  
19) I change things so that all can end well  
22) I try not to act impulsively or to act upon my first idea  
25) I find one or two solutions to the problem

Emotion-focused coping:

2) I wish for the situation to disappear or end  
5) I wish to be able to change what is happening  
8) I feel bad for not being able to avoid the problem  
11) I hope for a miracle  
14) I feel guilty  
17) I think about surreal or fantastic things to make myself feel better  
20) I try to forget everything  
23) I wish for my attitude to change  
26) I criticise myself

Coping based on social support:

3) I talk to someone about what I am feeling  
6) I ask for professional help and I follow the advice that I am given  
9) I ask for advice from someone I respect and I follow it  
12) I talk with someone to know more about the situation  
15) I keep my feelings to myself  
18) I talk to someone who can do something about the problem  
21) I try not to isolate myself  
24) I embrace another person’s sympathy or understanding

6.4. Linear regressions, predicting resilience, problem-focused, emotion-focused, and social support coping from specific household affordances

| Household affordances | Resilience | Problem-focused coping | Emotion-focused coping | Social support coping |
|-----------------------|------------|------------------------|-----------------------|----------------------|
| t         | P     | β  | t     | p     | β   | t    | p     | β   | t     | p    | B    |
| 1         | 2.52  | .012 | .114 | -.995 | .320 | -.047 | -1.193 | .233 | -.060 | .350 | .727 | .017 |
| 2         | -.416 | .645 | .018 | -.202 | .763 | .013 | .917 | .359 | .040 | .375 | .708 | .016 |
| 3         | 2.18  | .03  | .115 | -1.882 | .060 | -.105 | -.848 | .397 | -.050 | -.549 | .583 | -.032 |
| 4         | -.018 | .986 | -.001 | .109 | .913 | .006 | -.605 | .109 | -.093 | .855 | .393 | .049 |
| 5         | -.3.16 | .002 | -.142 | -.516 | .606 | -.025 | 1.511 | .131 | .076 | .751 | .453 | .037 |
| 6         | -.119 | .905 | -.006 | -.944 | .346 | -.050 | -2.121 | .034 | -.118 | -.699 | .485 | -.038 |
| 7         | .976  | .330 | .044 | 1.483 | .129 | .071 | -.481 | .631 | -.024 | 1.989 | .047 | .099 |
| 8         | .687  | .492 | .029 | .727 | .468 | .032 | .321 | .748 | .015 | -.1366 | .172 | -.063 |
| 9         | 4.381 | .001 | .228 | 2.143 | .032 | .118 | -1.564 | .118 | -.091 | -.1192 | .234 | -.068 |
| 10        | -.1.999 | .272 | -.047 | .445 | .656 | .020 | .783 | .434 | .037 | .311 | .756 | -.015 |
| 11        | .942  | .347 | .041 | .462 | .644 | .021 | 1.447 | .148 | .070 | .364 | .716 | .017 |
| 12        | -.1.008 | .314 | -.041 | .679 | .497 | .029 | 1.350 | .177 | .061 | .176 | .859 | .008 |
| 13        | .546  | .585 | .025 | .357 | .721 | .017 | -1.238 | .216 | -.062 | 1.138 | .255 | .056 |
| 14        | .750  | .453 | .039 | 2.006 | .045 | .111 | .580 | .034 | .562 | 2.097 | .036 | .121 |
| 15        | -.2.108 | .035 | -.105 | -.034 | .973 | -.002 | -1.258 | .209 | -.070 | -.1509 | .132 | -.083 |
| 16        | 1.185 | .236 | .043 | -.2.679 | .008 | -.103 | -.212 | .832 | -.009 | .269 | .788 | .011 |
| 17        | 1.277 | .262 | .049 | .768 | .443 | .031 | .494 | .622 | .021 | 1.488 | .137 | .063 |
| 18        | .279  | .780 | .010 | 2.960 | .003 | .114 | -.607 | .544 | -.025 | 5.455 | .000 | .218 |
| 19        | .359  | .720 | .012 | 1.334 | .183 | .048 | .481 | .631 | .018 | 2.061 | .040 | .076 |

(continued on next page)
6.5. Social Position Determinants (Scales) and Corresponding Values (Mihić & Culina, 2006, p. 83)

### Profession (x3)

| Description                                                                 | Score |
|------------------------------------------------------------------------------|-------|
| Unemployed; cleaner/janitor                                                   | 10    |
| Student                                                                      | 9     |
| Retired                                                                      | 8     |
| Machine operator; semi-qualified employee; employee in informal sectors; maid; and other unqualified employees | 7     |
| Qualified employee – construction worker, restauration (service), retail, service industry, bus or lorry driver, policeman, fireman, etc. | 6     |
| Administrative personnel (clerk), technicians and other similar professions  | 5     |
| Public school teacher, engineer, independent worker                           | 4     |
| Middle management, small business owner, government official                 | 3     |
| Executive or director of a large company, owner of medium-sized business (10–20 employees) | 2     |
| Senior government official, senior executive, owner of a large business      | 1     |

### Education (x3)

| Description                        | Score |
|-----------------------------------|-------|
| No education                      | 10    |
| Incomplete primary education      | 9     |
| Primary education                 | 8     |
| Qualified worker                  | 7     |
| Secondary education               | 6     |
| Highly qualified worker           | 5     |
| Senior technician                 | 4     |
| University undergraduate education | 3     |
| Specialist education              | 2     |
| Masters, Doctorate                | 1     |

### Gross monthly income (x3)

| Description         | Score |
|---------------------|-------|
| Up to 480€          | 10    |
| Up to 1500€         | 9     |
| Up to 2000€         | 8     |
| Up to 2500€         | 7     |
| Up to 3000€         | 6     |
| Up to 4000€         | 5     |
| Up to 5000€         | 4     |
| More than 5000€     | 3     |

Scores between 10 and 27 indicate medium-high to high social position; scores between 28 and 60 indicate medium social position; scores spanning from 61 to 100 indicate medium-low to low social position.

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