

- Poser une **problématique** nouvelle à partir d'une revue de la littérature sur le sujet.
 - critères d'évaluation:
 - clarté de la présentation et adéquation des références bibliographiques
 - capacité d'analyse, maîtrise des concepts
 - positionnement du sujet par rapport à l'état de la recherche (capacité à mettre en avant la nouveauté apportée)

PLAN = le BAF qui aurait du : direct sur self-sacrifice....

Une orga = comme repose aux COM : Tinbergen → surtout question 3

Throughout history, humans have been willing to lay down their lives for the sake of their groups (Whitehouse, 2018).

+ other data ?

- Durkheim ---→ for audience // that remembers

- Whitehouse++ : resilience = ? // link to conflict ? / link to id FUSION

Abstr : after decades research, integrate into one overarching theory : **identity fusion**, a visceral sense of oneness with the group, resulting from intense collective experiences (painful rituals or horrors frontline combat) or from perceptions of shared biology.

Willingness to sacrifice one's life for the sake of a group has been documented around the world and throughout human history, from the Christian martyrs of antiquity and the followers of Jim Jones in Guyana, to the Spartans at Thermopylae and the kamikaze pilots of Japan. In recent decades, a murderous form of self-sacrifice – suicide terrorism – has become increasingly common, with an estimated 3,500 such attacks recorded in the past 30 years (McCauley 2014).

Charlevoix→ Durkheim : sectarians of Amida ... « altruistic suicide »

Plans to die : suicide terror, Lankford 2014b

Hard distinguish : Victoria Cross, 1/10 proba survive... Gambetta 05

[--→ one explanation = that in fact not suicidal...]

[hard to conduct research : dead]

Whether admired as heroes or reviled as terrorists, individuals who engage in such extreme pro-social behavior tend to be relatively well-off, educated and to display no appreciable psychopathology (Atran, 2003) – underscoring that self-sacrifice cannot simply be viewed as the result of unadaptive miscalculation or proximal causes (e. g. the contents of a particular ideology).

- on « proximal » : for suicide terror, speak of ideology / cf BAF // osef en fait ?????? <> tres serieux en fait ?

- pathology : explications = ... **see Pape + section 2...**

- + not a puzzle, Colman & Pulford.... -- c'est bien un pb de pass on genes

The Victorian scholar Emile Durkheim (1897/1951) argued that altruistic suicide, in all its forms, was a consequence of overintegration of the individual into the

group, to an extent that abnegated even the most basic self-interest for the sake of the larger

collective. In the ensuing century, social scientists tried to break down the idea of overintegration into more precise and testable theories of group alignment and identity (Swann et al.

2012; Tajfel & Turner 1979), psychological kinship (McNamara & Henrich 2017), and paro-

chial altruism (Bernhard et al. 2006). This paper sets out an integrated theoretical framework, drawing on an extensive programme of empirical research into the causes and consequences of identity fusion – a visceral

sense of oneness with the group (Swann et al. 2012) that has been linked to extreme self-

sacrifice in a wide range of special populations, ranging from Muslim fundamentalists in

Indonesia to armed insurgents in Libya and from football hooligans in Brazil to tribal warriors in Melanesia.

Identity fusion is highly correlated

with an expressed willingness to fight and die to defend the group against **external threats**

(Swann et al. 2010b; 2014a; Whitehouse et al. 2014b). ⇒ FIG 1

----- and **intergroup conflict** more likely p6 :

There is

some debate on the prevalence of warfare in the Pleistocene,

but some scholars estimate that up to 40% of all male deaths in human prehistory can be attributed to intergroup conflict

(Keeley 1996). Even if this seriously exaggerates war-related mortality rates (Ferguson 2013), there is little doubt that intraspecies violence is a widespread and persistent feature of human behaviour (Gómez et al. 2016b), and ancient foragers probably always faced threats of predation that were best parried by stan

It is argued here that enduring fusion with the group results from perceptions of shared essence, established via at least two distinct pathways : shared xp // pheno matching ⇒ FIG1

3

Although suicide terrorism may be shaped by sophisticated strategic considerations (e.g., careful selection of targets to maximally advance terrorist objectives), altruistic motivation is a necessary condition for implementing these strategies, inasmuch as the individual is required to give up his or her own life for the sake of a group. Such actions may be described as extreme because they are (or are most likely to be) fatal. Efforts to explain the phenomenon have often emphasized its seemingly irrational nature, for example, attributing such suicides to extreme religious beliefs or to individual pathology (Pape 2005, p. 16).

Moreover, studies in the lab and in natural settings suggest that religious beliefs lead to pro-social action because they serve as markers of group alignment. That is, it would seem to be attachment to a collective, forged through shared rituals or other identity markers, and not beliefs per se that motivate pro-group action (Bloom 2012). For example, in a series of studies (Ginges et al. 2009), frequency of participation in collective rituals has been shown to predict support for suicide attacks, whereas frequency of prayer (as a less groupish devotional act) does not.

++ see that comes in the name of lots of ideologies : not just religious...

=> give examples...

=====> point of signal : go beyond the message...

++ why do these norms exist themselves ? Begs the question... at least from an evolutionary standpoint

⇒ from there cultural evolution...

[[Cex : Atran, sacred moral values 2010]]

Fusion, Swann et al 09

- fro, inherited bio ... Gil-White

- from shared life-defining xp : W+L 2014

both = W + al, 2017... + stats cited p. 5

Corr with sacrifices (blood... to huge risk).... *But risk life ?? [practical pb pour recolter donnees + ethiques...]*

++ with remembering a shared dysphoric xp... → OK Libya, but fusion first or shared xp ? → study Vietnam 6

11 Although fusion with country has been shown to correlate highly with stated willingness to fight and die to protect one's fellow countrymen (Swann et al. 2010b), it remains doubtful whether anyone would prefer to die for an extended fusion target over a local one.

For before : oser un peu, = surtout du filler, à part les caractéristiques...
+ dire qu'expliquer ==> mieux décrire ?

Could self-sacrifice therefore have a biological function? This project purposes to investigate the potential biological motivations that may underlie this behavior.

= **the question, + see if it can account for some of the characteristics** = as outlined by Whitehouse + ... who ?

= at least see if possible from a individual level...

+ **rites of terror** : fusion also linked to this... ==> in second-order signal = honest if of terror....

[but pb : « involuntary »???

In view of the above, it should come as no surprise that a recent exhaustive survey of modern suicide terrorism identified bonding via intense initiation rituals as one of the features common to most suicide groups (Pape 2005, p. 8).

Even though collective benefit is the displayed (moral) motivation for self-sacrifice, biological motivation will be understood in terms of benefits to the individual (Williams, 1996).

- ++ on explications from Whitehouse + al...
- ++ why:(coll benefit...
- debate not resolved : OK, let's just try to do it at the individual level...

Abstr : The fusion mechanism has often been exploited in cultural rituals, not only by tribal societies but also in specialized cells embedded in armies, cults, and terrorist organizations. With the rise of social complexity and the spread of states and empires, fusion has also been extended to much larger groups, including doctrinal religions, ethnicities, and ideological movements.

Whitehouse + al, 2017 : elim free-rider pb des le depart in modele ?:(besoin d'emerger ?? <> suppo des depart

cf kin + hijacked ==> **cultural evolution** that exploit our bio evol systems, Whitehouse 2013 = another ref....

- a lire aussi ?? == blog post en gros oO

[OK vocab = « fathers », « motherland »... mais tjs meme prob... oseb meme si medie un peu les acts : give blood... mais tjs pas sacrifice]

= the message : 7

Following a closely argued discussion of these issues, Orbell and Moriwaka (2011) consider whether Blackwell's argument can shed light on the motivations of kamikaze pilots in World War II. Based, however, on extensive analysis of letters, poems, wills, and memoirs left behind by 661 Japanese pilots who perished in suicide attacks, the authors conclude that the act of self-sacrifice was not undertaken to increase the welfare of close kin. Rather, the writings of kamikaze pilots placed much greater emphasis on the desire to die for the nation or for the emperor.

2017 :

The finding was that the gene effects on cooperation resulting from dysphoric experiences evolved to be larger than gene effects on cooperation resulting from euphoric experience. This pattern was even more pronounced with groups engaged in "us versus them" contests than with those engaged in "us versus nature" contests, the former involving more intense inter-group competition.

[[+ rituals → local fusion = cultural gadget, to mimick shared dysphoric xp]] // of terror : oseb non ?
Rentre pas trop dans le modele : still begs the question ==> model here = explicit more teh link, allow also the rite to emerge

But whereas

imagistic practices in the small-scale societies of prehistory would have supported efforts to fend off other groups of similar size, wielding more or less equivalent levels of lethal force, such practices took on a whole new significance with the emergence and spread of states and empires.

==> J Zealots, Assassins... Gandhi : when asymmetrical, with ++ diff // also rituals

---> so what ?

= explication ?

Or just that it works at small scale... vs large-scale armies that were not selected ?

+ cf resistance to orga religion : Boyer... (bof)

but extended fusion ---> to larger group : Swann et al 2012 : still asym no ? Jsut that fused to the ieda of the large group ??

ah non : y a armies ?

... remains possible that only local fusion can motivate self-sacrifice.... Donc osef en fait

Another proposes that conditioning cooperation on past experience is sufficient to fuse groups of distantly related individuals in the face of adversity (Whitehouse et al. 2017).

Une formulation possible =

1) on connaît ex de sacrifice ; Kin selection...[[[*mais ca pourrait gacher le suspens?*]]

2) aussi a societe si eusocial... en fait c'est pas mieux

3) besoin d'un truc en plus : cultural /group sel //// error / **dont avec mutualism : bien outline l'explication mutualiste...**

KIN SELECTION :

OK Spider, for kin... exists // Hamilton: theoretical possibility --> formule de maths

+ eusocial insects

+ on « error »... ??? // kin selection + ... /// operates outside of what sel for, **exaptation**

- => debat plus complique : degre d'apparente des anciennes communautés ?

One proposes that fusion is the out-

come of kin selection, motivating high levels of cooperation and

mutual support among close genetic relatives (Whitehouse &

Lanman 2014).

Abstr : In ancient foraging societies,

fusion would have enabled warlike bands to stand united despite strong temptations to scatter and flee

- p6 « facilitate coop among kin in extreme situations such as outgroup threat » → what = important about conflict = the extreme ??

[or by-produit autobio memory????]

then **hijacked** by social institutions ----> questions becomes *why not evolve capacity not to make that « mistake »* ?? ==> **CRONK + AKTIPIS COM**

shared xp = reliable phenotypic marker in ancestral groups, mostly made up of closely related individuals.... --> debated --> cf ref = ?

[+ sharing core values signals gen relatedness : Swann + al 2014]

- war : 40 % of all male deaths ? (up to)

Blackwell (2008) has argued that Palestinian suicide

attackers increased their inclusive fitness outcomes by contribut-

ing, through the celebrity of their deaths, to the well-being and

reproductive prospects of their close kin

hat the country or its

ruler had taken on the status of family. Nevertheless, as these

authors also observe, evolution should act strongly against mistak-

ing fellow countrymen for kin, especially where the stakes are so

high.

====> **pas vraiment de mistake dans cette theorie donc, juste du group ?? Mais y en a d'autres, dont Antoine Marie...**

====> pas si fan de la kin selection en fait Whitehouse, cf p7

[[+ rituals → local fusion = cultural gadget, to mimick shared dysphoric xp]]

II Framework of the study : SOCIAL SIGNALING

To do this, we will attempt to model these biological motivations, using a *social signaling framework* (Dessalles, 2014). Social signals are a specific case of costly signals (Zahavi, 1975; Grafen, 1990) whose purpose are to attract friends. In contexts where the signaled quality correlates with the fitness of friends, such a quality may be in social demand; when, in addition, the potential benefits in terms of increased social status upset the costs, social signaling can be expected to emerge.

Present signals = slides TPT

Go beyond message, purported goal = part of the signal...

- beyond the proximal ideology
- beyond collective benefit even

This explanation cannot hold for self-sacrifice, however, since signalers would not survive to enjoy the advantages of their new status. We propose to add an additional hypothesis to our theoretical framework: *that social status be in part heritable for our species*, as the high status of one individual can raise that of every member of his or her family (Service, 1971). In a context where a martyr's family members are in high social demand, this could theoretically suffice to make self-sacrifice evolutionary stable – as long as it remains a low-frequency behavior (the fewer the heroes, the higher their status).

[Blackwell (2008) has argued that Palestinian suicide attackers increased their inclusive fitness outcomes by contributing, through the celebrity of their deaths, to the well-being and reproductive prospects of their close kin]

We are thus left with the need to find a plausible context where a martyr's family may be in high social demand. This is not immediately obvious, as the quality signaled by individuals who engage in self-sacrificial behavior need not be heritable. We propose to consider a context akin to *inter-group conflict*, where it may be crucial to ensure that one's friends carry no sympathy for the enemy (e. g. to avoid betrayal). In such a situation, *commitment to the group* is a highly desirable quality to have in friends. One way for (alive) individuals to signal this quality may be to honor the fallen martyrs, for instance by engaging in conspicuous ceremonies in their name. If and when such costly second-order signaling is evolutionary stable, honoring could entail indirect benefits for the family of martyrs, meaning that self-sacrifice may itself emerge – the two signals being expected to be mutually reinforcing, as would-be-patriots need martyrs to signal their commitment to the group.

====> link to some of the characteristics = in context of conflict... « identification » / fusion...

====> LINK to **rites** : with cultural expla, still begs the question ====> model here = explicit more the link, allow also the rite to emerge

[en fait eux ils partent de l'eq : oui la c'est tres couteux... mais ce qui le rend couteux = la competition justement... => sinon pas d'exclusion...]

Our main hypothesis, which we venture to investigate, is therefore the following: in a biological population where social status is in part heritable, and which is engaged in a context akin to inter-

group conflict, self-sacrifice and honoring may emerge as first-order and second-order signals of individuals' commitment to the group, or patriotism. Using computer simulations, our project will study the conditions (if any) where these two signals may emerge (e.g. cost and probability of betrayal).

TO READ :

Pape 05

stuff from Leo

stuff from Morgan ?

TO cite ?

Altran : sacred values COM / papers