

Words That Trap Functions

A semantic-release method for recovering peaceful uses without hiding risk

Labels help us think quickly. They become dangerous when the name of one use is mistaken for the whole nature of a thing.

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STATUS	Conceptual open design · research-informed · proposed for testing
METHOD	First-person semantic analysis, engineering examples, safety constraints and falsifiable evaluation

*“I do not want to forbid words. I want us to notice what a word is doing—
then free the function without freeing the harm.”*

Abstract

This paper proposes a social technology called semantic release. A semantic trap forms when a useful label—weapon, secret, waste, obsolete, dangerous, failure or copyright—is treated as the complete identity of a thing. The label may then conceal other affordances, close inquiry, dehumanise people or make one institutional use seem permanent. Research on labels, framing and psychological essentialism supports the narrower claim that words can direct attention and category boundaries; it does not prove that language mechanically determines thought. [1–3]

The remedy is not euphemism and not the erasure of danger. It is a disciplined separation of material, capability, configuration, intention, action and consequence. A nuclear reaction in a controlled reactor and a nuclear explosion are not interchangeable. Combustion in a heater, engine or destructive device is not morally identical. An impulse may propel, press, strike or injure. The physical process creates possibilities; engineering controls, institutions and human choices determine which possibility becomes real.

Semantic release therefore keeps two truths together: a thing may have more than one function, and some configurations remain dangerous, unlawful or ethically unacceptable. The method invites peaceful conversion while preserving provenance, hazard controls, rights, consent and accountability.

CENTRAL PROPOSITION

A label is a map, not the territory. Name the present use precisely, keep the hazard visible, and reopen the question of what else the underlying capability can safely do.

1. The problem: a name can become a wall

Words are necessary compression. Without categories, every decision would require rebuilding the world from first principles. But compression discards detail. The danger begins when we forget that detail was discarded and treat the label as an essence.

Experimental and review literature shows that labels can modulate perception and cognition, that framing changes what information people attend to, and that people often imagine categories as having a hidden, stable essence. [1–3] These effects justify caution, not a mystical claim that words control reality. People can inspect a frame, compare alternatives and change their minds.

The phrase “weapon is merely a tool” contains a valuable opening but needs a safety correction. A weapon is a real category: it can describe design, configuration, intended use, actual use and legal treatment. Calling it a tool does not deactivate it. Yet “weapon” need not exhaust the identity of every material, component, factory, skill or physical principle inside it. Those capabilities may sometimes be separated, converted and governed for peaceful work.

2. A seven-layer description

Semantic release begins by replacing one totalising noun with seven inspectable layers:

LAYER	QUESTION
Thing	What material, organism, code, machine or information actually exists?
Affordances	What actions become possible in relation to particular people and environments? Affordances are relational and may be useful, unknown or dangerous. [4]
Configuration	How has the thing been arranged, tuned, contained or connected?
Intention	What outcome is a person or institution trying to obtain?
Action	What is actually done—not merely what is claimed?
Consequence	Who or what is helped, burdened, exposed or harmed?
Review	What evidence, rights, law, consent and independent oversight constrain the next use?

Research foundation: label-feedback, framing, psychological essentialism and affordance theory. See references 1–4.

3. One process, different arrangements

The following examples do not say that all uses are equivalent. They show why the name of an outcome should not replace a physical description of the process that produced it.

REACTION → REACTOR / EXPLOSION

A nuclear reactor is an apparatus designed to sustain a controlled fission chain reaction and remove heat; an atomic weapon is explicitly excluded from the regulatory definition of a reactor. [5] The important variables are control, rate, geometry, containment, heat removal and protective systems. “Nuclear” names a domain, not one inevitable outcome.

COMBUSTION → HEAT / MOTION / DAMAGE

Combustion releases energy through chemical reaction. In a rocket engine, hot high-pressure gas is directed through a nozzle to create thrust. [6] In other arrangements combustion cooks food, heats buildings, drives machinery or destroys. The process is neither a moral permission nor a moral verdict; the controlled system and consequence matter.

IMPULSE → PROPULSION / PRESSING / IMPACT

Impulse is a change in momentum. It can launch a spacecraft, drive a pile, operate a tool, assist rehabilitation equipment or injure a body. “Impulse” describes physics; direction, magnitude, interface, timing and safeguards describe the application.

ENGINE → AMBULANCE / TRACTOR / GENERATOR / MISSILE

An engine converts stored energy into useful work. The same family of capabilities can transport patients, cultivate land, generate power or propel a weapon system. The engine is not innocent in every context, but neither is its complete function captured by the most harmful system into which it can be installed.

4. Conversion is already real

Peaceful conversion is not only a metaphor. It has happened at material, component, manufacturing and institutional levels.

Warhead material became electricity

Under the US–Russian “Megatons to Megawatts” programme, highly enriched uranium from dismantled Russian nuclear weapons was blended down for use as commercial reactor fuel. A US Department of Energy account described hundreds of tonnes converted and thousands of warhead-equivalents removed from arsenals. [7] This did not make weapon design harmless; it changed the material, configuration, custody and purpose under controlled non-proliferation arrangements.

Plants can remediate munitions contamination

The US Army Engineer Research and Development Center has tested plants engineered to transform soil-borne explosive residues into non-toxic products. [8] The technology addresses harm left by munitions; it does not convert an explosive into food. The transferable function is biological remediation.

Training-round materials were reconsidered as seed carriers

A 2016 US Department of Defense small-business solicitation sought biodegradable composites with embedded seeds for training-ammunition components. Contemporary reporting preserved the solicitation’s stated aim: after delayed germination, plants would help remove contaminants and the biodegradable material could also have civilian product uses. [9] This was a research request, not evidence that operational combat ammunition became a crop-seeding system. That distinction matters.

Peace conversion retools institutions

Research on economic conversion describes the planned redirection of military skills, facilities and production toward civilian applications. [10] The lesson is larger than reuse of an object: a workforce, supply chain or laboratory also contains capabilities that can be reorganised.

VERIFICATION NOTE: TONY GIBBS

The author recalled a Tony Gibbs associated with Middlesex University and work repurposing munitions to seed crops. Searches located a Tony Gibbs associated with sonic arts at Middlesex, but no reliable source connecting him to this munitions work. The attribution is therefore not presented as fact. It remains an open research lead awaiting a publication, archive record or first-hand source.

5. Trap words and release questions

A word is not a trap merely because it is serious or restrictive. It becomes a trap when it closes examination without naming the reason. The following replacements are not compulsory vocabulary; they are prompts for more accurate thought.

Weapon

The trap: One harmful use becomes the total identity of every material, component and skill.

Release question: Which capability is present, how is it configured, and which peaceful functions survive verified deactivation or conversion?

Keep visible: Treat the present object according to its actual hazard and law until qualified experts confirm otherwise.

Secret / classified

The trap: “You may not look or think that way” replaces a specific explanation of harm.

Release question: What exact harm requires restriction, which part must be restricted, who reviews it, and when does the restriction expire?

Keep visible: Protect personal safety, legitimate confidentiality and genuinely dangerous operational details; publish the rest where possible.

Copyright

The trap: A bundle of rights is heard as a blanket ban on reading, sharing, adapting or building.

Release question: Who owns which rights, and what licence or exception permits which act, in which place and for how long?

Keep visible: Credit creators and obey the actual licence. Public availability is not the same as public domain.

Waste

The trap: A material is defined by disposal rather than composition, condition and possible next use.

Release question: What is it made of, what contaminants are present, and can it be safely reduced, repaired, reused, remanufactured or recovered?

Keep visible: Do not rename toxic or radioactive waste into a “resource” to evade containment, cleanup or liability.

Obsolete

The trap: Unsupported for one task becomes useless for every task.

Release question: Which original requirement is no longer met, and which lower-risk roles remain within verified limits?

Keep visible: State reliability, security, energy and compatibility limits; do not move unsafe equipment into less protected communities.

Failure

The trap: A result that disproves a hope becomes shame, waste or permission to hide.

Release question: What boundary, mechanism or assumption did the result reveal, and what should change or stop?

Keep visible: Publish negative results and distinguish learning from negligence or repeated preventable harm.

Dangerous

The trap: A broad warning can end inquiry without describing exposure or control.

Release question: Dangerous to whom, by which pathway, at what dose or condition, with what probability and severity?

Keep visible: Hazard analysis comes before creative reuse; uncertainty increases care rather than erasing possibility.

Autonomous / intelligent

The trap: A marketing label hides who set the objective, supplied the data, authorised action and remains accountable.

Release question: Which decisions can the system make, within which boundary, with what evidence, override and appeal?

Keep visible: A machine label never removes human or institutional responsibility.

Defence / security

The trap: A reassuring purpose-word can conceal coercion, offensive capability or surveillance.

Release question: What operational effect occurs, against which threat model, under whose authority, with what proportionality and review?

Keep visible: Name effects and affected people; do not let benevolent intent substitute for evidence.

User / target / case / resource

The trap: A person is reduced to the system's role for them.

Release question: Who is the person, what do they need, what power do they hold, and how can they refuse, correct or appeal?

Keep visible: Retain personhood, consent, rights and lived consequence in every technical description.

Solution

The trap: A proposal is treated as finished before evidence, trade-offs and failure modes are known.

Release question: Is this a hypothesis, prototype, intervention or proven practice—and against which measured outcome?

Keep visible: Use staged tests, independent review and scale-or-stop gates.

Impossible

The trap: A current constraint becomes a law of nature.

Release question: Is the barrier physical, evidential, legal, economic, political, institutional or simply untried?

Keep visible: Do not sell possibility as proof; specify what would falsify the claim.

6. Secrets, fear and war

The strongest version of the concern is not that every secret causes war. It is that hidden commitments, hidden capabilities and hidden evidence can prevent correction and allow different parties to act on incompatible pictures of reality. After the First World War, Woodrow Wilson's Fourteen Points called for openly reached peace agreements and were presented as an answer to secret diplomacy and secret

treaties that he regarded as contributing causes. [11] Historians continue to debate the relative weight of those causes; the example supports a transparency principle, not a single-cause theory of war.

Modern security policy also recognises gradation. UK government guidance uses defined classification tiers and calls for protective controls proportionate to both threat and the impact of compromise. [12] That is more precise than treating “secret” as a permanent mystical property.

UNESCO’s Open Science Recommendation offers a useful balance: knowledge should be as open as possible, while specific restrictions may protect human rights, privacy, intellectual property, threatened species and sacred or confidential knowledge. [13] Openness is therefore a governed default, not careless disclosure.

MINIMUM RULE FOR RESTRICTION

Restrict the smallest necessary part, state the reason and owner, record the decision, provide independent review, set a review or expiry date, and publish the remainder. A restriction should protect a named interest—not protect authority from embarrassment or correction.

7. Copyright should describe permissions

Copyright is not the same as secrecy. In the UK, copyright protection gives owners rights over uses of protected works; a licence can permit one or more specified purposes, places or periods, and legal exceptions may also apply. [14] The practical error is to stop at the word “copyright” instead of reading the permission state.

A clearer publication record says whether a work is:

- in the public domain;
- licensed for sharing and adaptation with attribution;
- licensed only for non-commercial use or only without adaptation;
- available to read but requiring permission for reuse;
- partly open, with third-party material under different terms; or
- subject to a statutory exception in a particular jurisdiction.

Creative Commons licences demonstrate that copyright and broad reuse can coexist: for example, CC BY-SA 4.0 permits sharing and adaptation, including commercially, if attribution and share-alike conditions are followed. [15] Selecting a licence is a rights decision for the copyright owner; this paper does not silently choose one on the author’s behalf.

8. The semantic-release protocol

The protocol is designed for workshops, engineering reviews, policy tables and public research. It does not authorise construction, possession or operation of hazardous systems.

1. Write the current label, then state what decision the label is presently making for the group.
2. Describe the thing without its purpose: materials, information, energy flows, interfaces, skills and dependencies.
3. List affordances—helpful, neutral, harmful and unknown—for particular people and environments.

4. Separate current configuration from underlying capability. Record what must be removed, disabled, contained or independently verified.
5. Name intention, actual action and foreseeable consequence separately. Good intent cannot cancel harmful effect.
6. Map rights and constraints: law, ownership, licence, consent, privacy, ecological limits, export controls and community authority.
7. Generate peaceful alternatives, including reuse, redesign, disassembly, remediation, teaching, measurement and non-use.
8. Choose a reversible test with explicit stop conditions. Publish evidence, uncertainty, adverse results and the decision that follows.

9. The safety boundary: release the function, not the harm

Semantic release can itself be abused. A manufacturer may rename pollution as a “resource,” an institution may call surveillance “safety,” or a person may call a weapon a “tool” to deny its present danger. The method therefore has non-negotiable boundaries:

- No label change alters the physical state of an object.
- No peaceful hypothesis overrides explosives, radiation, chemical, biological, electrical or mechanical safety.
- No conversion proceeds without qualified deactivation, chain-of-custody and hazard assessment where required.
- No openness claim justifies publishing instructions that materially increase a person’s ability to cause harm.
- No property or copyright reframe erases ownership, moral rights, attribution, licence terms or lawful exceptions.
- No “public benefit” claim substitutes for consent from affected people or communities.
- No experiment scales before evidence, independent review and a clear stop rule.

10. A falsifiable public test

The central claim can be tested rather than admired. A small registered study could compare groups given identical technical objects or proposals under different descriptions.

ELEMENT	DESIGN	MEASURE
Conditions	Label-only, function-description, and semantic-release-with-guardrails.	Random assignment; same underlying facts; preregistered wording.
Primary outcome	Generate safe, feasible alternative uses.	Independent assessors score novelty, feasibility, benefit and risk.
Safety outcome	Check whether wider thinking creates more unsafe proposals.	Hazard omissions, legal omissions and risk-severity score.
Understanding	Test whether participants distinguish process, configuration and consequence.	Short transfer problems using unseen examples.
Failure criterion	Reject or revise the method if novelty rises	No claim of success without equal or better safety

ELEMENT	DESIGN	MEASURE
	only by ignoring risk.	performance.

Proposed study, not completed evidence. Publish the protocol, materials, exclusions and negative results before interpreting outcome.

11. What this paper does—and does not—claim

- It claims that labels can direct attention and that more precise descriptions may reopen safe design space.
- It claims that technology often contains multiple affordances and that peaceful conversion has real precedents.
- It does not claim that language alone creates physical reality or that every object can be safely repurposed.
- It does not deny that weapons, secrets, hazards, copyright and legal restrictions are real categories.
- It does not provide instructions for constructing, modifying or operating weapons or other dangerous systems.
- It offers a method for testing whether better language produces better, safer questions.

Conclusion

Words help people coordinate, but a word should not become a prison for thought. The practical discipline is to refuse both extremes: do not let a harmful use define every possible function, and do not let hopeful renaming conceal a real hazard.

The Green Tank's proposed social technology is therefore simple: describe the thing, open the affordances, specify the configuration, keep consequence and rights visible, and test a peaceful alternative under public safeguards. This is not oppression or depression of thought. It is release into a logical relationship with the real world.

“Free the function. Keep the truth. Remove the harm.”

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Publication note

This is a research-informed conceptual paper, not legal, engineering, explosives, nuclear, medical or security advice. It intentionally omits operational details that could enable harm. Factual corrections and better sources are welcome through The Green Tank's human-reviewed contact route.

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