The identification of perceived intended affordances

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Debate on whether or not affordances…

1. Are binary, which means that either they exist or they do not (McGrenere & Ho, 2000)

2. Exist independent of the user's ability to perceive them (Kaptelinin & Nardi, 2012)

3. Rely on the user's past knowledge and experience in order to be perceived (Norman, 1988, 1999)
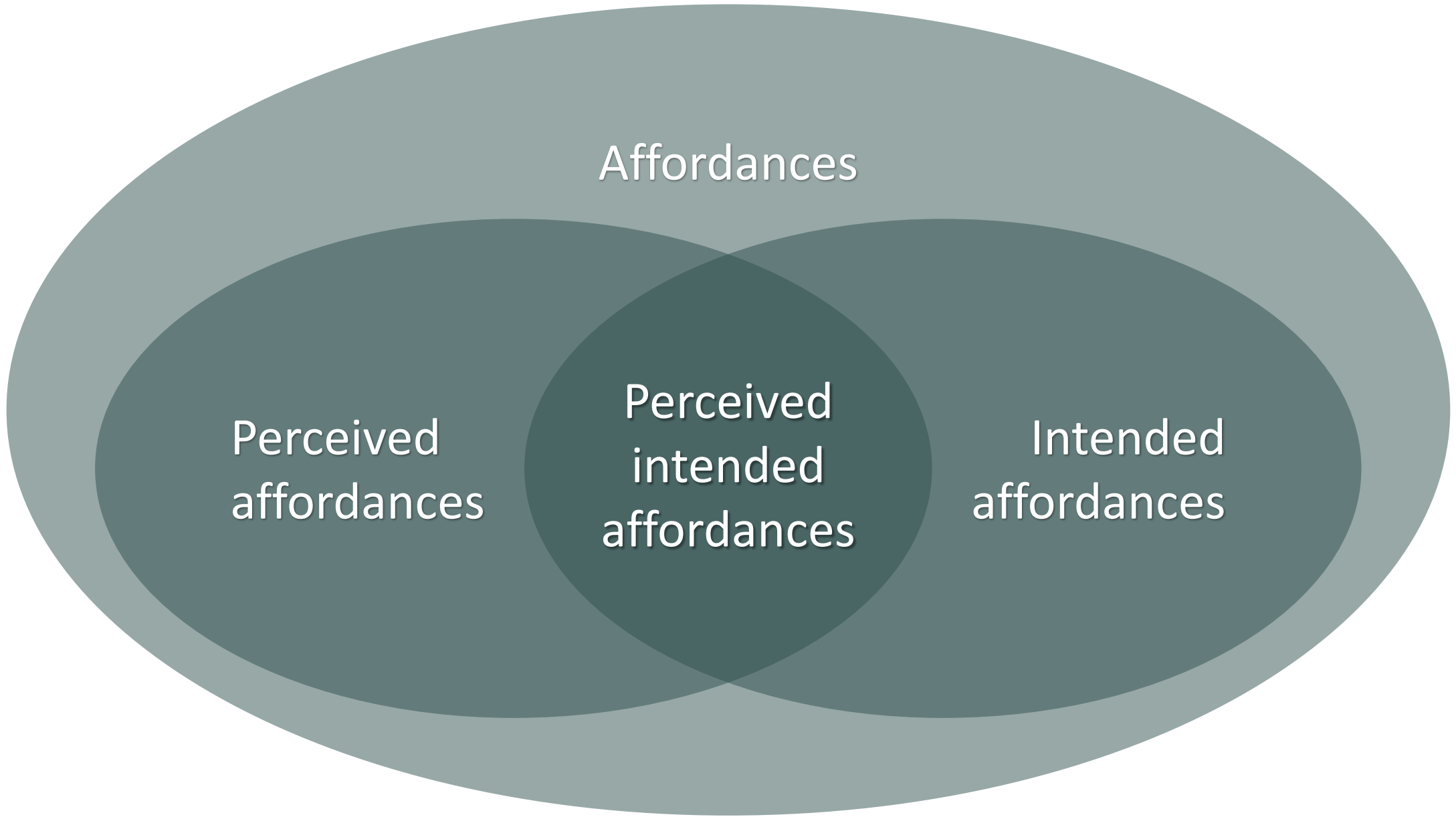
Missing aspects

1. Whether users perceive the affordance that was intended by the designer

2. Whether it is possible to manipulate this affordance

3. How to do so

Nokia N-Gage

Intentionality

1. From a design perspective, the relevant type of affordance is the intended or designed one

2. Dennett's design stance show how important the designers' intentions are

Definition of perceived intended affordance

The perception of the intended manner by which the function of an artefact is enacted by a user in a given environment
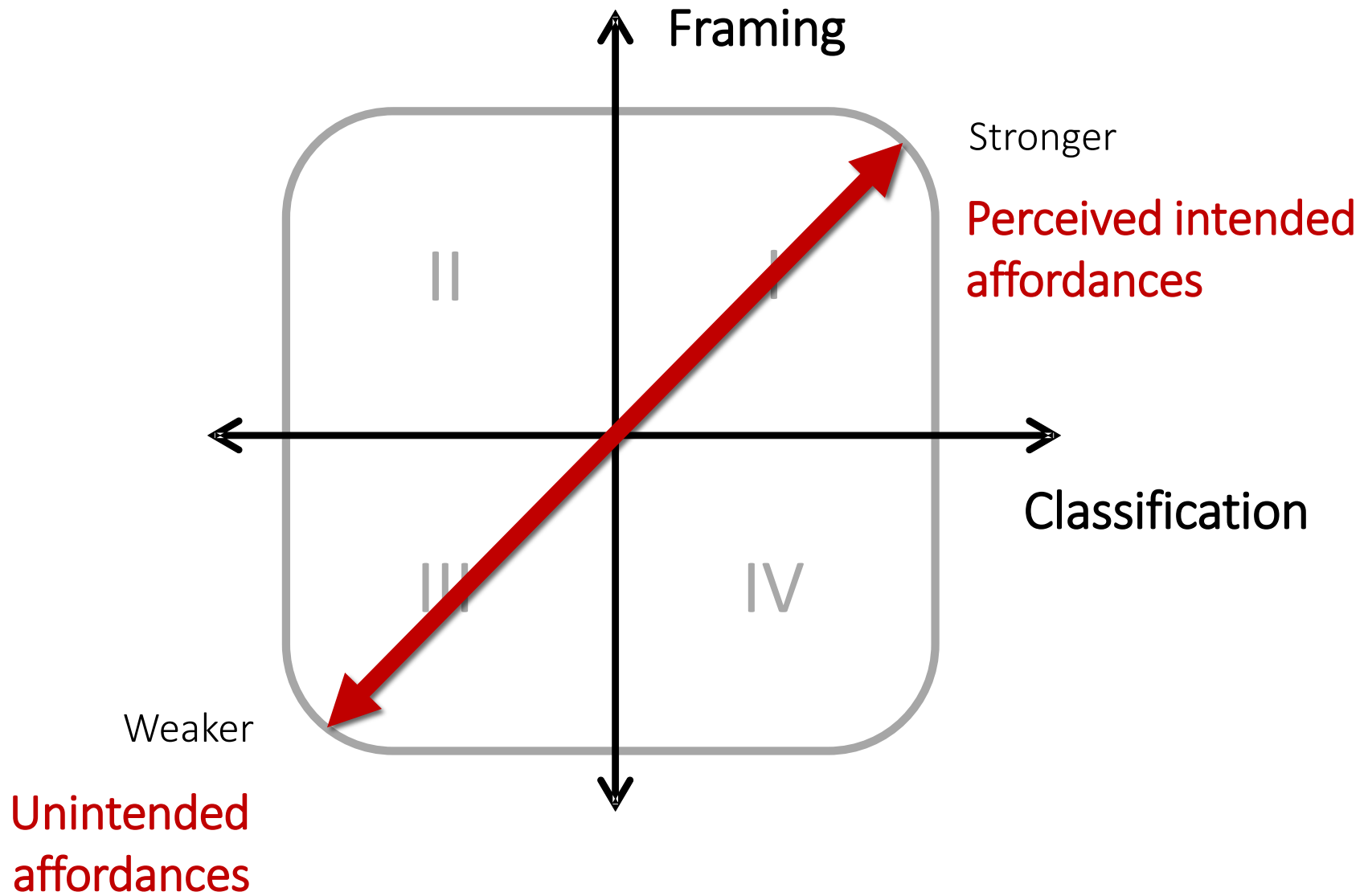
Design research

		Factors	
		Classification	**Framing**
Levels	**Weaker**	Weak(er) classification	Weak(er) framing
	Stronger	Strong(er) classification	Strong(er) framing

Methodology

		Trials	
		Set A Manipulation of classification	**Set B** Manipulation of framing
Participants	**Group A**	*State IC (N=51)*	*State WI (N=51)*
	Group B	*State NC (N=53)*	*State WO (N=53)*

Results

Classification			
	Group A	**Group B**	**Total**
Correct answer	82	117	199
Wrong answer	122	95	217
Total	204	212	416

17.59% increase in correct responses

Framing			
	Group A	**Group B**	**Total**
Correct answer	65	104	169
Wrong answer	139	106	245
Total	204	210	414

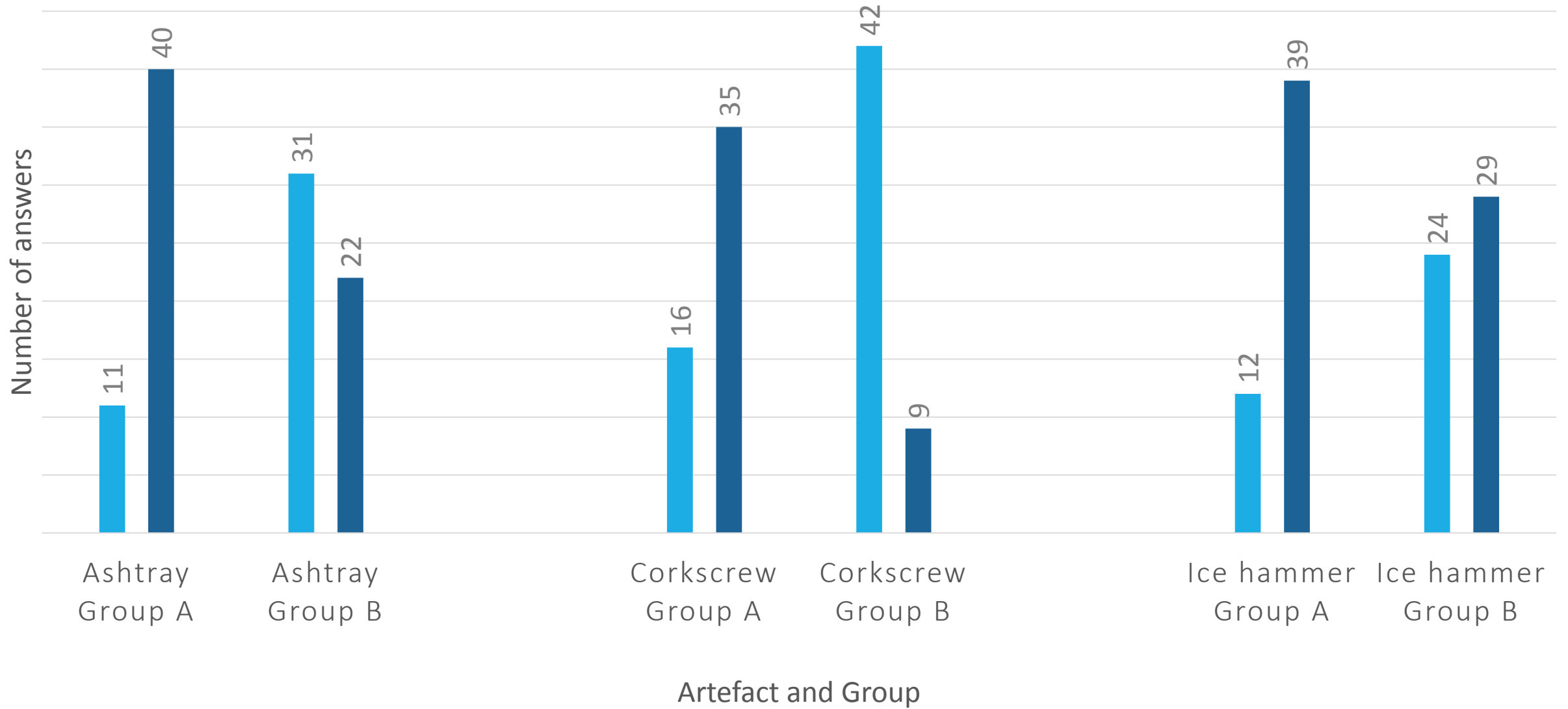23.08% increase in correct responses

Chart of a 2×2 chi-square test for ashtray, corkscrew and ice hammer

Weak(er) classification (state *IC*)   Strong(er) classification (state *NC*)

Weak(er) framing (state *WI*)

Strong(er) framing (state *WO*)

Significant manipulation of framing, from state*WI* (on the left) to state *WO* (on the right), on a corkscrew

Analysis of textual responses

1. 24.6% of the participants' responses were comparing the artefacts they saw with those that are part of their repertoire

2. Participants were neither familiar with the purpose of these artefacts nor how to activate the function

3. 80.72% of the participants' responses did not discuss the action that the artefact presented to the participant

Conclusion

1. The manipulation of the affordance dimensions influences the perception of intended affordances

2. This manipulation may not have a considerable impact on perceived intended affordances if the user is not familiar with how the artefact is used or has not seen anything similar before

Thank you

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