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1.1.b Question Bank Sensation of Heat and Cold

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Research questions

- What is the evolutionary benefit of feeling pain when temperatures become extreme?
- If the temperatures experienced were more extremely different, how would that feel?
- What degree of change induces discomfort? Does the direction of change matter?
- Why is it that some people complain about their hands feeling cold all the time, but not other people?
- Why does one temperature seem more dominant?
- Did the temperature of one's hand affect the perception of the water into which it was put?
- What is the reaction time to sensing hot or cold?
- What is the temperature threshold in order to feel a difference?
- If you know what you are going to feel beforehand, does that change the perception of what you feel?
- How does using water as the medium differ from just using air as the medium? How does that affect the sensation?
- Does the sensation change if more than just a finger experiences the temperature (e.g. a bath)?
- What's more painful? Freezing or burning?
- How does the body maintain homeostasis?
- What parts of the body react most to temperature?

Technical Issues

- The three cups were chosen to have a certain temperature. Why were those temperatures chosen?

Consequences and Applications

- For treating burns, it is not recommended that you apply ice because of concerns about frostbite. What is the perceptual concept behind this recommended treatment and an appropriate treatment?
- When is it appropriate to apply ice vs heat to an injury and why?
- How long does it take someone to adapt to a climate change (when they move to different parts of the world)?
- Why does glass break when experiencing a drastic temperature change?