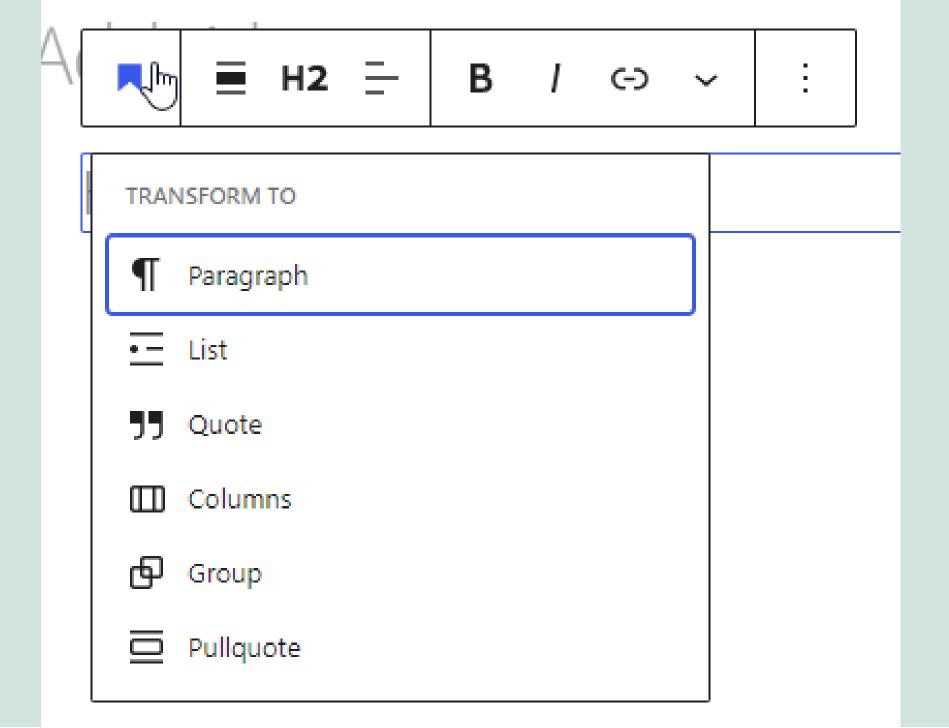
# Presto Chango! The magic of block transforms

## What is a block transform?

#### Definition

A **block transform** is part of the Gutenberg API that allows a user to change one block into another block.



#### Use case examples

- Similar blocks that can easily be converted (e.g. paragraph to heading)
- Blocks that come with a new theme / content strategy

## Simple transform example

#### User story

My site registers a custom block, called **Introduction**, which contains a single *content* string attribute.

A content editor will likely need to transform this **Introduction** block into the core **Paragraph** block, and vice versa.

#### block.json (snippet)

```
"name": "my/intro",
"title": "Introduction",
"attributes": {
  "content": {
    "type": "string",
    "default": ""
```

## The plan

I need to write 2 transforms:

- 1. Transform from Introduction to Paragraph
- 2. Transform from Paragraph to Introduction

#### transform.js

```
const { createBlock } = wp.blocks;
const IntroTransform = {
 to: [
      type: 'block',
      blocks: [ 'core/paragraph' ],
      transform: ( { content } ) => {
        return createBlock( 'core/paragraph', {
          content: content
        } );
  from: [
      type: 'block',
      blocks: [ 'core/paragraph' ],
```

#### Block registration

```
import { default as Metadata } from './block.json';
import { default as Transforms } from './transforms.js';
const Introduction = ( () => {
 const { registerBlockType } = wp.blocks;
 registerBlockType( Metadata, {
    transforms: Transforms,
```

#### Random aside

How did I know what attribute to grab from the core Paragraph block?

The answer lies in Github! (Specifically, the paragraph block's block json file)

## Ready for something more advanced?

#### User story, take 2

My old **Introduction** block is great, but I need to make it a bit more "fancy" by adding a heading and image to it.

A content editor may want to transform the core **Media & Text** block into this new **Introduction** block.

#### block.json (snippet)

```
"name": "my/fancy-intro",
"title": "Fancy Introduction",
"attributes": {
 "content": {
    "type": "string",
    "default": ""
  "heading": {
    "type": "string",
   "default": ""
   "image": {
    "type": "object"
```

### The plan

- Transform from Media & Text to Fancy Introduction
- Media & Text attributes are (mostly) image-related
  - Those attributes become the image object
- The Media & Text content are child Paragraph blocks
  - 1st paragraph becomes the heading attribute
  - The rest become the content attribute

#### transform.js

```
const { createBlock } = wp.blocks;
const FancyIntroTransform = {
  from: [
      type: 'block',
      blocks: [ 'core/media-text' ],
      transform: ( attributes, innerBlocks ) => {
        // Initialize the attributes to send to
        // the new block.
        let heading = '';
        let content = '';
        let image;
        // The attributes object is the media object.
        // Make sure it's an image.
        if ( attributes.mediaType === 'image' ) {
          image = {
```

#### Ta-da!

Presto chango! We have transformed our blocks!

### Thank you!

```
"Name": "Joni Halabi",
   "Role": "Developer @ Georgetown University",
   "Socials": [
      "Twitter @jonihalabi",
      "Github @thatdevgirl",
      "https://jhalabi.com"
]
```

#### References

- Block transforms API
- Gutenberg Github repo